> ESPORTS LAB
> UNIVERSITÄT SIEGEN
> _

Assembling Intercultural Teams in Esports –

Implications from the League of Legends European Championship

Tobias M. Scholz

University of Siegen
Chair for Human Resource Management and Organizational Behavior
Unteres Schloss 3
57072 Siegen
Germany

Email: tobias.scholz@uni-siegen.de

**Assembling Intercultural Teams in Esports –
Implications from the League of Legends European Championship**

Abstract

In times of digitization, professional intercultural management is crucial for organizations. There are many ways to compose teams, but the picture of practical optimization techniques is still vague. Therefore, it appears reasonable to analyze new contexts outside the traditional business world. The meaning of esports (competitive gaming) is novel as it grew in the last decade exponentially and is gaining massive momentum. Furthermore, esports grew in a closed environment for a long time and is driven by a digital and global community. In this paper, we will analyze the popular game League of Legends and the impact of the cultural team optimization strategy. Additionally, to the team, we will also focus on the Coach as part of this process. The results will show that unique separable strategies focusing on cultural homogeneity or diversity can be observed. It becomes evident that some optimization patterns have a higher probability of success than others. Based on these results, we will focus on the League of Legends European Championship and derive a prediction formula for the success of the teams and test it in the spring and summer season in 2019. Finally, we will present implications for intercultural management.

Keywords: Intercultural management, international teams, cultural synergy, esports, cultural optimization

Assembling Intercultural Teams in Esports –
Implications from the League of Legends European Championship

1. Research Motivation

In recent years, we can observe an emergent and global phenomenon. Competitive gaming, the so-called esports, moved from a niche industry with a small portion of passionate fans to a stadium-filling attraction. Superdata (2017) stated that the revenue in esports grew in 2017 to 1.5 billion US-dollar per year. A variety of companies are eager to join the esports industry, which can be seen at Amazon buying Twitch.tv, a streaming platform, for 970 million US-Dollar (Takahashi 2015), and companies like Mercedes-Benz or State Farm perform as sponsors. There are now over 130 "traditional" sports teams in esports involved, and, especially in 2017, this number increased exponentially. The majority of the professional sports teams at least discuss the opportunity to invest in esports. It is observable, that esports grew quite substantially in the last year, although, it is not that novel as the phenomenon started to emerge at the beginning of the internet. In nearly 20 years, esports flourished to an industry that nowadays can fill the Bird's Nest in Beijing China with tens of thousands of spectators (Gu 2017) as well as seen as an innovative and disruptive industry (Scholz and Stein 2017).

From a business perspective, this is an exciting development, but from an intercultural management perspective, another evolution is observable. For a long time, esports shaped in relative solitude; the esports sphere had to develop and grow on its own without influences from the outside. Many people did not understand esports and, therefore, categorized it as a nerd-phenomenon (Hallman and Giel 2017). Solutions were created without interference from other sources. At the same time, esports was predominately played on the internet, and this can be seen in the globalized approach in esports that goes further than any globalization in other industries. There was no need to search for team members within proximity; people could play together from everywhere. It is a truly global and digital industry. Consequently, intercultural teams are today a typical sight in professional esports teams, but it is quite a challenge to deal with such a team (Stein and Scholz 2016).

We claim that esports is more globalized and more digitized than many international virtual teams in modern corporations (Freeman and Wohn 2017). From an early age in their career, esports players have faced a globalized and digital world. To compete, they have to collaborate with a variety of people and have to find solutions to work in intercultural teams. Esports is not researched for a long time, and there is no substantial research on intercultural management in esports available; it seems interesting to analyze the approach of esports on intercultural management. The approach to intercultural management can contribute to the existing literature on international virtual teams.

There is especially one question to solve, which seems to be a crucial question in intercultural management nowadays: how to build effective intercultural teams (e.g., Earley and Peterson 2004, Humes and Reilly 2008, Lobel 1980, Zakaria et al. 2004). It is widely accepted that a professional intercultural team-building is essential for the success of organizations (e.g., Davison 1994, Matveev and Nelson 2004, Stahl et al. 2010), and this holds accurate as well for times of digitization and globalization where international virtual team-building becomes a further challenge (e.g., Gilson et al.2015, Grosse 2002, Lipnack and Stamps 1999). Consequently, understanding the way of creating successful esports teams may give insights towards this question and help to get a different perspective. Keep in mind, esports grew on their own and is an

industry that depends on the digitization as well as an under-researched context (Bányai et al. 2019).

There are many ways to compose teams concerning the cultural background (e.g., Adler and Gundersen 2007; Moosmüller et al. 2001, Scholz 2012), but the picture of effective optimization techniques is still vague. In recent intercultural management research, substantial progress on this question cannot be observed. In particular, the question of an adequate cultural difference among team members is still unsolved (e.g., Nemetz and Christensen 1996, Shachaf 2008, van Knippenberg and Mell 2016). The approaches on the cultural void (e.g., Blodgett et al. 2015, Liebowitz 2008) also do not specify cultural proximity versus distance among team members in order to make their cooperation more effective. Therefore, it appears reasonable to analyze new contexts outside the traditional business world, such as esports.

In this paper, we will give a short introduction to esports and present a research model for analyzing intercultural management in esports. We will focus on the idea of the cultural optimization of esports teams. In order to test the proposed hypotheses, we analyzed each team participating in League of Legends in the season 2017 in the regions North America, Europe, Taiwan South Korea, and China as well as World Championship finals. Furthermore, for Europe as the core research object, we also analyzed all seasons from 2014 until 2019. These results were used to develop a formula that describes the cultural synergy. This formula is tested for the season 2019. These results will be used to discuss potential implications for intercultural management.

2. Esports

The phenomenon of esports or competitive gaming is commonly referred to as a development in recent years. The earliest documented esports competition, however, took place at Stanford University in 1972 (Hiltscher 2015, Scholz 2019, Taylor 2012). Still, exponential growth happened predominately in the past decade (Hamari and Sjöblom 2017). Esports has grown from a small niche industry into a respectable player in the modern business, media, and sports world. Furthermore, this development was topped exponentially in 2017, and the predictions for the upcoming years will be exponential as well.

In research, there is still no precise definition of what esports means. In general, esports is seen as an umbrella term. An extended definition for esports originates from Wagner (2006, p. 3): "esports is an area of sports activities in which people develop and train mental or physical abilities in the use of information and communication technologies." Arnaud complements Wagner's definition: "Passion, training, reflex, intelligence, and teamwork … if it is not sport, it really has its taste" (Arnaud 2010, p. 11). This ongoing discourse was zusammengeführt in the following description:

> "In summary, it can be stated that eSports is eSports and is a socio-cultural phenomenon rooted in sports, media, entertainment, and culture, but emerged in a digitized environment. Furthermore, eSports blurs the barriers to those fields. Thereby, eSports evolved beyond the constraints of traditional sports, media, entertainment, and culture" (Scholz 2020).

At the moment, the tendency of linking esports to sports is omnipresent (Adamus 2012, Hallmann and Giel 2018, Hebbel-Seeger 2012, Jenny et al. 2017) and has sparked an intensive discussion about the appropriateness of doing so (e.g., Franke 2015, Hutchins, 2008, Jonasson and Thiborg 2010, Taylor 2012, Witkowski 2010). Resistance is coming from sports officials like the German Football Association, stating that esports is not a sports activity, and the

ambitions of making esports an Olympic category are absurd (Reuters 2018). At the same time, actors in the esports scene are arguing against the sports label as well: "But to think that a new phenomenon like esports can be described in terms of the old is to misunderstand it entirely" (Superdata 2015, p. 3). However, more and more sports teams are heavily investing in esports.

This reasoning is essential for further analysis in the context of intercultural management. Esports do not copy existing structures to adapt to, for example, the traditional sports environment, the current sports environment; esports do not aim to converge with traditional sports but strive to establish a unique setting. This environment may be more dynamic and decentralized, thus catering to the needs of this new industry. Consequently, the solutions of esports regarding intercultural management could vary. It will be interesting to test existing literature if it is confirmed or rejected by esports intercultural management.

Besides their (potential) alignment with the world of sports, esports is also aligned with gaming culture (Franke 2015, Jonasson and Thiborg 2010) or gamer culture (Shaw 2010). This illustrates the link between players and producers of video games: They share a "self-professed passion for video games" (Weststar 2015, p. 1244). Consequently, boundaries are translucent within esports, be it between producer and consumer, or amateur and professional (Taylor 2012). There are no distinct boundaries; all actors are part of the network and distinctly linked to each other. Beyond that, esports people, as members of the esports sphere, adopt a particular way of life (Chee 2006). This integration process appears much more intense than observed in any other cultural or sports-related phenomenon. "Altogether, professional gamers, audience members, and commentators present a dynamic understanding of video games as a performative medium" (Randhawa 2015, p. 16). This gamer culture could have an impact on the intercultural understanding of esports.

Furthermore, participating in esports often entails a high degree of enthusiasm and spirit. "[T]hey devote hours to hours to mastering it, endlessly fascinated by the intricacies of the system, its characters, its weapons, its properties" (Taylor 2012, p.89). This is important when trying to understand the dynamics among entities within the esports media sphere, as well as their potential of cooperating with other actors, even competitors. The outstanding team of SK Gaming boasts the slogan: "Gaming is believing." This precisely describes the inherent feeling of every actor in the industry. They believe in esports and, on a meta-level, want to see esports succeed and gain popularity.

3. Research Model
3.1. Research Framework and Hypotheses

The success of a culturally mixed team is expected to originate in the symbiotic combination of their specific cultural dimensions, not only among each other but also between the team members and their team leader. Referring to the literature of Hofstede (1980) and his cultural dimensions, it is possible to get a cultural understanding of culturally mixed teams, in particular by using the updated version of Hofstede et al. (2010). The question that is relevant in this case is the impact of cultural synergy on the team. Is it essential that the team has a high cultural synergy or a low cultural synergy? As stated by Adler and Gundarsson (2008), cultural diversity can have a positive impact on teams, under the assumption that creativity is required.

Consequently, cultural diversity can have a beneficial influence in certain situations (Scholz 2012). Cultural diversity could be relevant for the composition in esports teams, as creativity could lead to a competitive advantage. However, training skills are a routine task and also essential for any successful esports team. On the spectrum of Adler and Gundarsson,

cultural diversity is highly effective for the creative aspects of esports, but also highly ineffective for the routine training of skills in esports.

Focusing on synergy and focusing on diversity can be useful in any way. However, it is essential to focus on one characteristic predominately (Adler and Gundersen 2007). Consequently, the team composition should follow a distinct strategy. The environment in esports is quite volatile and dynamic, therefore, dealing with complexity (Duncan 1975), and the differentiation (Blau and Schoenherr 1971) of team skills is critical to success. The coach in those teams finally makes these decisions, and there is the necessity to find the right fit for a team.

The first hypothesis relates to the understanding that the individual cultural dimension of every team member will influence the success of the team. We assume that the cultural dimension of individualism and collectivism will have a substantial impact on the team composition, thereby stating that teams should consist of people with a high individualism or high collectivism. If the team is individualistic, the coach will look for heterogeneity in the team to increase the potential for creativity. However, a collectivist team should focus on homogeneity. Finally, the coach will focus on the similarity between himself/herself and the team member. For the collectivistic approach, the focus will be on increasing homogeneity, but for the individualistic approach, it would be to decrease similarity. Following the cultural diversity understanding, there should be two strong patterns: a collectivist, homogeneous team with high cultural similarity to the coach and an individualistic, heterogeneous team with low cultural similarity to the coach.

Hypothesis 1: Coaches seeking collectivism, homogeneity, and similarity in teams or for individualism, heterogeneity, and dissimilarity are more successful.

Although these patterns may be useful to select a winning team, it becomes evident that the leadership as well is relevant. The coach will require a certain way to lead the team, House et al. (2004) categorized this in the culturally endorsed leadership dimensions with a focus on charismatic, team-oriented, participative, humane-oriented, autonomous, and self-protective behavior. All of these seem reasonable in the context of leadership; however, in an esports team, we face a unique context. In general, esports games are fast, even faster than many other sports games. One single decision could lead to victory; this decision is made in less than a second.

Consequently, a coach is not able to influence the decisions, so he/she has to let the team members play their game. Here and there is it possible for the coach to impact the game, for example, using a time-out to change the flow of the game. At the same time, still, the players are highly autonomous.

Dimensions like charismatic, team-oriented, participative, human-oriented, or self-protective will probably have less impact on the coach-team relationship. Being charismatic, human-oriented, and self-protective are maybe necessary dimensions, however, in the heat of the game, the players will not react on that. This is also the case for the dimension team-oriented, they know they are a team, and only as a team, they will win. Consequently, they need to participate. Humane-oriented leadership will have an impact on the breaks and time-outs. Still, it is questionable if these speeches have a sustainable effect. Even in sports, it is debated if the coach has an influence on the player within a game (Buning and Thompson 2015). Therefore, the focus lies on autonomy. It is not the case that autonomous behavior is necessarily superior. Instead, it is more reasonable that there needs to be a fit between the understanding of autonomous leadership and the autonomous behavior of the players. A coach requires a similar understanding of autonomy as the team to let them work on their own or give them constant feedback.

Without this type of fit, there will be miscommunication and unmet expectations. Despite the value of autonomy, it seems essential to have a fit between coach and team on autonomy.

> *Hypothesis 2: Coaches seeking for a fit in the autonomy of their players are more successful.*

3.2. Research Setting

Data were collected from the video games League of Legends (LoL). LoL is a so-called Multi-player Online Battle Arena games or MOBA games, and it is currently one of the most popular ones. Each team consists of five players, and they fight against another team on a virtual battlefield. The goal is to defeat the enemy by, for example, destroy the enemy base. LoL can be seen as the most successful as well as a prominent esports title in the industry. For example, at the League of Legends World Championship, the number of viewers peaked at over 14.7 million (Lolesports Staff 2016). In general, the typical team consists of five players and one coach on the "field." Other people are supporting the team that could be called the coach. However, there is only one person allowed to interact with the players before the game.

Furthermore, there is a substitute player available, but usually, the core players participate in the majority of the games throughout the season. Regarding the data set, League of Legends is separated in regions, e.g., Europe or North America, teams are playing a spring season as well as a summer season, and the regions will send their best teams to the global finals to battle out the world championship. In 2017 that meant globally 56 teams participated with 280 different players and 56 different coaches. For the European data set from 2014 until 2019, twelve seasons were played consisting of 10 teams (in 2014, only eight teams participated).

3.3. Method

To make a comparison possible, we will focus on the intercultural dimensions by Hofstede and the culturally endorsed leadership theory from the GLOBE study (House et al., 2004), thereby using the values supplied by Hofstede and focusing on the rankings of the cultural endorsed leadership theories. As this is an explorative study, we are using these categorizations to get a better understanding of this novel context. However, an in-depth analysis will be necessary to validate the results.

**Table 1: Exemplary Analysis for Hypothesis 1 of
G2 Esports (Summer 2019)**

G2 Esports (Summer 2019)																																			
Coach						Player 1						Player 2						Player 3						Player 4						Player 5					
Germany						Denmark						Poland						Denmark						Croatia						Slovenia					
P	I	M	U	L	R	P	I	M	U	L	R	P	I	M	U	L	R	P	I	M	U	L	R	P	I	M	U	L	R	P	I	M	U	L	R
35	67	66	65	83	40	18	74	16	23	35	70	68	60	64	93	38	29	18	74	16	23	35	70	73	33	40	80	58	33	71	27	19	88	49	48

Average						Std. Dev.						Team-Coach						I (Team)	Homogeneity	Similarity
P	I	M	U	L	R	P	I	M	U	L	R	P	I	M	U	L	R	54	137	117
50	54	31	61	43	50	29	22	21	35	10	20	15	13	35	4	40	10	individualistic	heterogeneous	unsimilar

P=Power Distance; I=Individualism/Collectivism; M=Masculinity/Feminity; U=Uncertainty Avoidance; L=Long Term Orientation; I=Indulgence/Restraint

Table 1 shows exemplary the raw data for one team (G2 Esports) that we used for the analysis of hypothesis 1. This analysis was done for all teams. Hypothesis 1 was analyzed by

describing the individualistic value of the team; we took the average individualistic value of the team and cut 50 points on a 100 scale. The homogeneity is evaluated by the sum of the standard abbreviation overall cultural dimensions in the team. Finally, the similarity is derived by the cultural differences between the coach and the team and adding them up in absolute numbers. Both of them are split at the 60 points barriers.

Table 2: Exemplary Analysis for Hypothesis 2 of G2 Esports (Summer 2019)

G2 Esports (Summer 2019)																																			
Coach						Player 1						Player 2						Player 3						Player 4						Player 5					
Germany						Denmark						Poland						Denmark						Croatia						Slovenia					
C	T	P	H	A	S	C	T	P	H	A	S	C	T	P	H	A	S	C	T	P	H	A	S	C	T	P	H	A	S	C	T	P	H	A	S
3	1	3	2	3	1	3	2	3	1	2	1	2	2	1	2	3	3	3	2	3	1	2	1	2	2	1	2	3	3	2	2	1	2	3	3

Average						Std. Dev.						Team-Coach						A (Team)	FIT	
C	T	P	H	A	S	C	T	P	H	A	S	C	T	P	H	A	S	0,4	4,8	
2	2	1,8	1,6	2,6	2	0,5	0	1,1	1	0,5	1	0,6	1	1,2	0,4	0,4	1,2	Low fit with coach	Medium fit with coach	

C=charismatic, T=team-oriented, P=participative, H=humane-oriented,
A=autonomous, S=self-protective

Table 2 shows again the exemplary analysis of the raw data that was used for Team Liquid in order to evaluate hypothesis 2. This analysis was done for all 46 teams. For hypothesis 2, we categorized the rankings of the CLT leadership dimensions (House et al. 2004, 684) and codified them into 1=low rank, 2=medium rank, 3=high rank. In the GLOBE study, the authors differed between absolute and relative scores. We used the relative score for our analysis, as it seems to be more precise. Analyzing the fit is done by comparing the values of the coach with the average values of the team.

4. Results
4.1. Testing the Hypotheses

Taking a closer look at the data reveals a great variety of nationalities involved, some teams consist of people from six different countries, and some teams are from one country. Still, in some regions, there is a certain dominance observable. For example, South Korea has only South Korean players, and this development is explainable as South Korea is seen as the home-country of esports and, therefore, based on the long history have a considerable player-base.

Table 3: Analysis of the Team Compositions in League of Legends in the World Championship in 2017

Team	IND	HOM	SIM	Pattern		
Samsung Galaxy*	18	0	0	*collectivistic*	*homogeneous*	*similar*
SK Telecom T1*	18	0	0	*collectivistic*	*homogeneous*	*similar*
Royal Never Give Up	20	0	116	collectivistic	homogeneous	unsimilar
Team WE	19	67	73	collectivistic	heterogeneous	unsimilar

Longhzu Gaming*	18	0	0	*collectivistic*	*homogeneous*	*similar*
Misfits Gaming	67	124	231	*individualistic*	*heterogeneous*	*unsimilar*
Fnatic	73	89	69	*individualistic*	*heterogeneous*	*unsimilar*
Cloud9	71	136	203	*individualistic*	*heterogeneous*	*unsimilar*
Gigabyte Marines	20	0	0	*collectivistic*	*homogeneous*	*similar*
G2 Esports	39	130	125	collectivistic	heterogeneous	unsimilar
Team SoloMid	70	138	76	*individualistic*	*heterogeneous*	*unsimilar*
ahq e-Sports Club*	17	0	0	*collectivistic*	*homogeneous*	*similar*
EDward Gaming	20	55	98	collectivistic	homogeneous	unsimilar
Immortals	36	147	108	collectivistic	heterogeneous	unsimilar
Fenerbahce	29	58	42	collectivistic	homogeneous	unsimilar
Flash Wolves*	17	0	0	collectivistic	homogeneous	similar

teams with asterisks consist of members from one nation

Table 3 shows the final standing of the League of Legends World Championship in 2017. In League of Legends, many teams from the top 8 follow one of the proposed patterns. Either they are collectivistic, homogeneous, and similar, or they are individualistic, heterogeneous, and unsimilar. The team of Royal Never Give Up states a lack of similarity because the coach is from Taiwan, and the players are from China. Team WE are highly collectivistic due to the reason that the coach is from China, two players are from China, and three players are from South-Korea. However, there is a specific heterogeneity and lack of similarity observable. Still, both teams have particular cultural proximity that may counteract these discrepancies. All these teams focus on intense gameplay and are known for their high skill level. The individualistic pattern highlights the cultural diversity and the potential for creative gameplay. Misfits Gaming has a coach from the United Arab Emirates and players from Great Britain, Germany, France, and South Korea.

In the lower eight, there are also some teams following the pattern, like Gigabyte Marines, ahq e-Sports Club, and Flash Wolves are from one country, so it is evident that there are homogeneity and similarity. However, Team SoloMid is following the individualistic pattern consisting of players from the U.S.A., Denmark, and China. It is not clear why this trend did not work. Besides that, every team varied from the hypothesized pattern. It seems in League of Legends that hypothesis 1 is not rejected. In summary, several teams follow the collectivist or individualistic pattern. Furthermore, there is a tendency that this pattern is more successful than other compositions.

Table 4: Analysis of the CLT Leadership Dimensions in League of Legends in the World Championship In 2017

Team	C	T	P	H	A	S	Fit
Samsung Galaxy*	0	0	0	0	*0*	0	0
SK Telecom T1*	0	0	0	0	*0*	0	0

Royal Never Give Up	0	0	0	0	*0*	0	0
Team WE	0	0	0	0	*0*	0	0
Longhzu Gaming*	0	0	0	0	*0*	0	0
Misfits Gaming	1,8	1	1,4	0,4	*0*	1,4	6
Fnatic	0	0	0,2	2	*0,2*	0,2	2,6
Cloud9	0,8	0,8	1,6	0,4	*0*	1,6	5,2
Gigabyte Marines*	0	0	0	0	*0*	0	0
G2 Esports	0,6	1,4	1,4	0	*1*	1,4	5,8
Team SoloMid	0,2	0,2	0,4	0,8	*0*	0,4	2
ahq e-Sports Club*	0	0	0	0	*0*	0	0
EDward Gaming	0	0	0	0	*0*	0	0
Immortals	0,4	0,2	0,4	0	*0*	0,4	1,4
1907 Fenerbahce Esports	0,4	0,8	0	0,4	*0*	0	1,6
Flash Wolves*	0	0	0	0	*0*	0	0

teams with asterisks consist of members from one nation; C=charismatic, T=team-oriented, P=participative, H=humane-oriented, A=autonomous, S=self-protective

Moving on to hypothesis 2 and the fit concerning the autonomy, there is a pattern observable. Table 4 is focusing again on LoL and presents the results relevant for hypothesis 2. In all of the teams, there is a fit towards autonomy observable, and the majority have a perfect fit. Only G2 Esports in the lower eight had a high value. The team consisting of a Dutch coach and players from South-Korea, Croatia, Denmark, and Spain seems to struggle with the autonomy fit. Still, the team lacked a fit between coach and players in all dimensions. Finally, autonomy fit appears to be a universal necessity for teams in League of Legends. Consequently, hypothesis 2 is not rejected. The coach should look towards a proper autonomy fit to be able to compete on this high level at all.

4.2. Developing a Prediction Formula

Based on the results of the analysis from the League of Legends World Championship in 2017, it became evident that there are patterns observable that may benefit the success of a team. Pattern one is based on an individualistic, heterogenic team composition with a low fitting between the team and the coach. Pattern two is based on a collectivistic, homogenous team composition with a high fitting between the team and the coach. However, for the discourse of intercultural management, it seems that regions like China, Taiwan, and South Korea are less interesting due to the lack of cultural diversity in the teams. Therefore, North America and Europe seem more relevant to the research. However, to identify an equation that explains the cultural synergy within the team and the coach, it is essential to focus on the region that has a successful track record in the past. The League of Legends European Championship is not only more diverse but also more successful, especially in recent years. Europe reached the World Championship finals with Fnatic in 2018 and with G2 Esports in 2019. In 2019 no North American team even reached the Knockout Stage of the final eight teams.

Furthermore, the European teams tend towards pattern one; based on that, the individualism within the team is more relevant; the homogeneity should have a low value — these aspects co-align with the individualistic and heterogeneous pattern. Besides, the understanding of autonomy in the team should be similar, so everybody in the team has the same understanding

of autonomy in the team. Therefore, the standard deviation of autonomy becomes relevant for the prediction of success. Another factor in the prediction based on the pattern, is the similarity of the coach, thereby comparing the cultural dimensions of the coach with the average cultural dimension of the team. Although the pattern one reveals a tendency of unsimilarity, it seems to exist a diminishing benefit of unsimilarity in this context. Teams with a high unsimilarity tend to perform worse than teams trending towards similarity. Therefore, we propose that a lower value in similarity/unsimilarity is more beneficial than a higher, under the assumption that they can be categorized as unsimilar. As stated before, the fit between coach and team is also crucial for the success of the team, and again the value should move towards zero. The fit describes the cultural fit between coach and team across the CLT leadership dimensions. Also, we included another significant benefit concerning uncertainty avoidance. Here the uncertainty avoidance is compared to the coach and the team as this is crucial for the strategic position of the team overall. Are they more risk-taking, or are the less risk-taking? The general assumption is that convergence towards the same mind-set is necessary to be successful.

The results from the season 2014 until 2018 were used to create a formula that could predict the placement in the league based on the team composition and the coach. This formula is only based on the cultural dimensions, and the categorization by Hofstede (1980) and the GLOBE Study (2014) other performance statistics was not considered in this exploratory research but may be added in the future. The goal was to predict the outcome purely based on cultural dimensions. Consequently, eight seasons were the basis of this approximation. The season of 2013 was not included as a coach was not yet mandatory. The spring and summer season of 2019 was used to test the predictions. Based on that, the following equation that is conformed to the argument about the pattern one emerged:

Equation: Predicting the Cultural Synergy of a European Lol Team

$$Cultural\ Synergy = \big(IND + HOM * STD(AUT)\big) + (SIM * FIT) + (UA_{coach} - UA_{team})$$

This equation explains in the first bracket, the individualism (IND) and homogeneity (HOM) as well as the standard deviation of autonomy (AUT) of the team consisting of the five players under the assumption that the team is following the overall heterogeneity pattern. The second bracket states the similarity (SIM) and the fit (FIT) of the coach towards the team, and the final bracket describes the fit concerning the uncertainty avoidance (UA) between coach and team as an efficiency factor in the equation. Overall the tendency should be lowering the value in this equation. The closer it gets to zero, the more synergy is observable.

Table 5: Comparison of the Prediction of the League of Legends European Championship for the Spring Season 2019

League of Legends European Championship Spring Season 2019				
	Team	Predicted Fit	Spring Place	Difference
1.	Excel Esports	155	9.	-8
2.	Fnatic	172	3.	-1
3.	G2 Esports	179	1.	+2
4.	FC Schalke 04	182	7.	-3
5.	Splyce	203	4.	+1
6.	Origen	229	2.	+4
7.	SK Gaming[*]	241	6.	-1

8.	Misfits Gaming	255	8.	0
9.	Team Vitality	269	5.	-4
10.	Rogue*	289	10.	0

asterisks are for teams diverging from the pattern one

Based on the equation, we evaluated the predicted fit for the teams in the spring season 2019, and the results are depicted in table 5. These results were compared to the actual placement of the teams. Only SK Gaming and Rogue deviated from the pattern one, and their fit was multiplied by 1,2 to highlight this deviation as both teams followed a more collectivistic team composition. Overall, the placement of the teams was relatively close to reality. Only Excel Esports deviated and is an extreme outlier, and after a bad start into the season, the team tested around with their academy players. Misfits Gaming and Rogue were correctly predicted, and G2 Esports and Fnatic were predicted to be in the Top 3 of the spring season.

Table 6: Comparison of the Prediction of the League of Legends
European Championship for the Summer Season 2019

League of Legends European Championship Summer Season 2019				
	Team	Predicted Fit	Summer Place	Difference
1.	Fnatic[s]	137	2	-1
2.	G2 Esports[s]	143	1	+1
3.	Splyce[s]	176	3	0
4.	Excel Esports	182	10	-6
5.	Origen	183	8	-3
6.	SK Gaming*	195	7	-1
7.	FC Schalke 04[1]	201	4	+3
8.	Team Vitality[s]	215	6	+2
9.	Rogue*	221	5	+4
10.	Misfits Gaming	283	9	-1

asterisks are for teams diverging from the pattern one, teams with an s have the same roster as in the spring season and teams with a 1 had only one change in the roster

In the transfer window between the spring and the summer season, several teams stayed with their existing roster. This development is quite recent as teams often only had short-term contracts with the players and, therefore, transfers were quite common. Only a few players stayed in one team for more than a year. For example, Martin "Rekkles" Larsson is part of Fnatic uninterrupted since 2015. With the current growth of esports and the increase in professionalization (Scholz, 2019), many organizations are interested in keeping the team for a more extended period. Not only for performance reasons but also marketing reasons. Therefore, we propose that keeping the team together or only changing one player may have a beneficial impact on the cultural synergy. Consequently, if the team stays the same, we predicted fit would be multiplied by 0,8, and with one substitution, it will be multiplied by 0,9.

Based on these adjustments, teams like Fnatic and G2 Esports improved their fit as they stayed the same. The prediction of the Top 3 was near to the reality; only that G2 Esports beat Fnatic. The other teams were quite close to their placement in the summer, and teams like Misfits Gaming or SK Gaming only deviated one place, and Splyce was correctly predicted. Again, Excel Esports acts like an outlier, even though not so extreme as in the Spring season. Still, it

seems that some hidden aspects need further investigation as to why this team is performing far worse than the cultural synergy equation predicted.

The equation predicts the placement in the seasons of 2019 to a certain degree. But still, using these cultural dimensions is an experimental approximation of the cultural context in these professional eSports teams. Many other variables may influence, but the prediction also highlights that the fit between team and coach is also essential for the success of a team, and this can be interesting for future iterations of the equation. As the transfer window is still open, a prediction of the spring season in 2020 is not yet possible.

5. Discussion and Implications

This exploratory analysis shows some interesting aspects to discuss and scrutinize. The focus on cultural diversity is highly relevant for cultural optimization. Teams need to be optimized around the team-building strategy. Selecting a team is not only dependent on the team members but also the coach or team leader will influence the intercultural diversity in teams. Focusing on the different team composition patterns identified in the course of our research may be useful to find a needed harmony in the team. The team can work together, even if they are individualistic, heterogeneous, and lack similarity to their coach.

Furthermore, it becomes evident that cultural diversity is useful only for achieving a creative outlet, as well as cultural synergy, which is useful for repetitive tasks. This may not be new knowledge, but the esports context shows quite clearly that the simultaneous focus on cultural diversity and cultural synergy can lead to a competitive advantage. Purely individualistic teams were successful as well as collectivistic teams. However, it is not observable that the concentration of individualistic versus collectivistic alone leads to a competitive advantage. The other teams are also following specific patterns; therefore, the DotA 2 Team of Team Liquid is quite entertaining, as it is highly diverse, but the coach was able to create a team by a collectivistic focus and a good fit in autonomy.

Patterns are useful, but they are no guarantor of success. This can be an exciting implication for intercultural management as well; the best practices may sound helpful. However, they could not be adequate for their organization. Following the standard understanding of intercultural management may not lead to a competitive advantage. However, it may also not lead to a competitive disadvantage.

The fit between coach and team members led to a further interesting implication. Although the hypothesis 2 on the coach's preferences on autonomy sounded reasonable, the data showed that an autonomy fit between coach and team is a necessity. Every team should have a secure fit on the autonomy cultural leadership dimension. It is the foundation to work from. But it also highlights the aspect that the dimension of autonomy is seemingly irrelevant. There is a strong focus, not only autonomy, to generate a great fit between coach and team.

The analysis was done descriptively and looked into past tournaments. The predictive formula can explain some of the results in the seasons 2019 but needs more testing and improvement. Especially the case of Excel Esports is difficult to explain, there are some hidden factors that lead to these discrepancies. Furthermore, the recent years revealed another trend, that teams stay the same throughout the seasons, five teams kept the roster from the spring season in the summer season. This development might have an impact and should be factored in, how much it affects is not yet predictable. At the moment, the formula has no calculation included for the performance statistic, and this will be added in a future version of the equation.

Interestingly, many esports teams, even though using digital tools and are globally recruited, are in one location. In the case of the League of Legends European Championship, most of the teams are located in Berlin. These high-performance teams seem to only work in a face-to-face environment, even though the technology could enable them to be a virtual team. In a global and digital environment, teams and organizations are opting out of the virtual world is an intriguing insight for research in intercultural administrators and highlights the importance of "analog" communication in teams.

Intercultural management could learn from this research, as it is not contradicting existing research, but showing that there are interesting patterns available. However, they do not describe all the effects on team composition in esports. They are looking into this phenomenon in more depth could be interesting, as teams need to find the right team composition quickly. Many leagues have only small transfer windows, and so coaches are stuck with their players for months. Furthermore, many teams do not have substitutes and cannot replace players easily. The team must fit. Although many companies could replace their team members in intercultural teams, it would be more cost-efficient to have the right team composition from the beginning. Thinking about the team composition from the intercultural management gains relevance from understanding the esports context.

6. CONCLUSION

The paper highlights the potential of cultural optimization first and foremost in esports. But, as esports is highly volatile, it will be interesting if those patterns will evolve in the related context of accelerating business as well. In a highly global, highly digitized business context, the cultural dimensions of people still have an impact on team compositions. And even in business, the "gamer culture" gains relevance, since gamification permeating it (e.g., Cardador et al. 2017; Oprescu et al. 2014).

Consequently, intercultural management covers both business and esports and is required to be performed professionally. As familiar research context, intercultural management research leads to insights that might contribute to a mutual, novel understanding how to build culturally mixed teams effectively, broadening the perspective from the concentration on isolated intercultural fits to the combination (or: "configuration") of multiple intercultural fits to reach team success. Therefore, a significant contribution of esports is towards the Framing of research on cultural diversity in virtual teams (Han and Beyerlein 2016).

Furthermore, understanding international teams and how cultural distance or cultural void influences such teams in the digitization, esports is a valid research context. These esports teams are born digital and understand the benefit of digitization; at the same time, they know that the best team can be recruited globally. In the end, the cultural fit requires the best players and, most importantly, a fit with the coach and the vision of that coach.

References

Adamus, Tanja (2012). Playing computer games as electronic sport: In search of a theoretical framework for a new research field. In J. Fromme; and A. Unger (eds.), *Computer games and new media cultures: A handbook of digital game studies*. Dordrecht: Springer, pp. 477-490.

Adler, Nancy J.; and Allison Gundersen (2007). *International dimensions of organizational behavior*. Mason, OH: Thompson Higher Education.

Arnaud, Jean-Christophe (2010). Esports – A new word. In J. Christophers; and T. M. Scholz (eds.), *Esports yearbook 2009*. Norderstedt, Germany: BoD, pp.11-12.

Bányai, Fanni; Mark D. Griffiths; Orsolya Király; and Zsolt Demetrovics, (2018). The psychology of esports: A systematic literature review. *Journal of Gambling Studies*, vol. 35, pp. 351-365.

Blau, Peter M.; and Richard A. Schoenherr (1971). *The structure of organizations*. New York: Basic Books.

Blodgett, Amy T.; Robert J. Schinke; Kerry R. McGannon; and Leslee A. Fisher (2015). Cultural sport psychology research: Conceptions, evolutions, and forecasts. *International Review of Sport and Exercise Psychology*, vol. 8, no. 1, pp. 24-43.

Buning, Megan M.; and Melissa A. Thompson (2015). Coaching behaviors and athlete motivation: Female softball athletes' perspectives. *Sport Science Review*, vol. 24, no. 5-6, pp. 345-370.

Davison, Sue Canney (1994). Creating a high-performance international team. *Journal of Management Development*, vol. 13, no. 2, pp. 81-90.

Cardador, M. Teresa; Gregory B. Northcraft; and Jordan Whicker (2017). A theory of work gamification: Something old, something new, something borrowed, something cool? *Human Resource Management Review*, vol. 27, no. 2, pp. 353-365.

Chee, Florence (2006). The games we play online and offline: Making wang-tta in Korea. *Popular Communication,* vol. 4, no. 3, pp. 225-239.

Duncan, Robert B. (1972). Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, vol. 17, no. 3, pp. 313-327.

Earley, P. Christopher; and Randall S. Peterson (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning & Education*, vol. 3, no. 1, pp. 100-115.

Franke, Tilo (2015). The perception of esports – Mainstream culture, real sport and marketization. In J. Hiltscher; and T. M. Scholz (eds.), *Esports yearbook 2013/14*. Norderstedt, Germany: BoD, pp. 111-144.

Freeman, Guo; and Donghee Y. Wohn (2017). Understanding esports team formation and coordination. *Computer Supported Cooperative Work (CSCW)*, vol. 28, pp. 95-126.

Gilson, Lucy L.; M. Travis Maynard; Nicole C. Jones Young; Matti Vartiainen; and Marko Hakonen (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management,* vol. 41, no. 5, pp. 1313-1337.

Grosse, Christine U. (2002). Managing communication within virtual intercultural teams. *Business Communication Quarterly,* vol. 65, no. 4, pp. 22-38.

Gu, Rachel (2017). From 2008 to 2017: Reflections from the Stands in the Bird's Nest. http://www.espn.com/esports/story/_/id/21356303/league-legends-2008-2017-reflections-stands-bird-nest. Accessed 29 February 2020.

Hallmann, Kirstin; and Thomas Giel (2018). Esports – Competitive sports or recreational activity? *Sport Management Review*, vol. 21, no. 1, pp. 14-20.

Hamari, Juho; and Max Sjöblom (2017). What is esports and why do people watch it? *Internet Research*, vol. 27, no. 2, pp. 211-232.

Han, Soo J.; and Michael Beyerlein (2016). Framing the effects of multinational cultural diversity on virtual team processes. *Small Group Research*, vol. 47, no. 4, pp. 351-383.

Hebbel-Seeger, Andreas (2012). The relationship between real sports and digital adaptation in e-sport gaming. *International Journal of Sports Marketing & Sponsorship*, vol. 13, no. 2, pp. 132-143.

Hiltscher, Julia (2015). A short history of esports. In J. Hiltscher; and T. M. Scholz (eds.), *Esports yearbook 2013/14*. Norderstedt, Germany: BoD, pp. 9-14.

Hofstede, Geert (1980). *Culture's consequences: International differences in work-related values*. Newbury Park, CA: Sage.

Hofstede, Geert; Gert J. Hofstede; and Michael Minkov. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). New York: McGraw-Hill.

House, Robert J.; Paul J. Hanges; Mansour Javidan; Peter W. Dorfman; and Vipin Gupta (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Newbury Park, CA: Sage.

Humes, Michelle; and Anne H. Reilly (2008). Managing intercultural teams: The organization exercise. *Journal of Management Education*, vol. 32, no. 1, pp. 118-137.

Hutchins, Brett, (2008). Signs of meta-change in second modernity: The growth of e-sport and the world cyber games. *New Media & Society*, vol. 10, no. 6, pp. 851-869.

Jenny, Seth E.; R. Douglas Manning; Margaret C. Keiper; and Tracey W. Olrich (2017). Virtual(ly) athletes: Where esports fit within the definition of 'sport'. *Quest*, vol. 69, no. 1, pp. 1-18.

Jonasson, Kalle; and Jesper Thiborg (2010). Electronic sport and its impact on future sport. *Sport in Society*, vol. 13, no. 2, pp. 287-299.

Lolesports (2016). 2016 League of Legends world championship by the numbers. https://nexus.leagueoflegends.com/en-us/2016/12/2016-league-of-legends-world-championshi. Accessed 29 February 2020.

Liebowitz, Jay (2008). 'Think of others' in knowledge management: Making culture work for you. *Knowledge Management Research & Practice,* vol. 6, no. 1, pp. 47-51.

Lipnack, Jessica; and Jeffrey Stamps (1999). Virtual teams: The new way to work. *Strategy & Leadership,* vol. 27, no. 1, pp. 14-19.

Lobel, Sharon A. (1990). Global leadership competencies: Managing to a different drumbeat. *Human Resource Management*, vol. 29, no. 1, pp. 39-47.

Matveev, Alexein V.; and Paul E. Nelson (2004). Cross cultural communication competence and multicultural team performance: Perceptions of American and Russian managers. *International Journal of Cross Cultural Management*, vol. 4, no. 2, pp. 253-270.

Moosmüller, Alois; Erika Spieß; and Astrid Podsiadlowski (2001). International team building: Issues in training multinational work groups. In M. E. Mendenhall; T. M. Kühlmann; and G. K. Stahl (eds.), *Developing global business leaders. Policies, processes, and innovations*. Westport, CT: Quorum, pp. 211-224.

Nemetz, Patricia L.; and Sandra L. Christensen (1996). The challenge of cultural diversity: Harnessing a diversity of views to understand multiculturalism. *Academy of Management Review*, vol. 21, no 2, pp. 434-462.

Oprescu, Florin; Christian Jones; and Mary Katsikitis (2014). I play at work – Ten principles for transforming work processes trough gamification. *Frontiers in Psychology*, vol. 5, pp. 1-5.

Randhawa, Navneet (2015). The games, the audience, and the performance. In J. Hiltscher; and T. M. Scholz (eds.), *Esports yearbook 2013/14*. Norderstedt, Germany: BoD, pp. 15-22.

Reuters (2018). Esports olympic ambition 'absurd' – German FA chief. https://uk.reuters.com/article/uk-soccer-germany-esports/esports-olympic-ambition-absurd-german-fa-chief-idUKKBN1GH21V. Accessed 29 February 2020.

Scholz, Tobias M.; and Volker Stein (2017). Going beyond ambidexterity in media industry: esports as pioneer of ultradexterity. *International Journal of Gaming and Computer-Mediated Simulations*, vol. 9, no. 2, pp. 47-62.

Scholz, Tobias M. (2012). Talent management in the video game industry: The role of cultural diversity and cultural intelligence. *Thunderbird International Business Review*, vol. 54, no. 6, pp. 845-858.

Scholz, Tobias M. (2019). Esports is business. Management in the world of competitive gaming. Cham: Palgrave.

Scholz, Tobias M. (2020). Esports in media management – Deciphering the world of competitive gaming. *International Journal on Media Management*, published online before print.

Shachaf, Pnina. (2008). Cultural diversity and information and communication technology impacts on global virtual teams: An exploratory study. *Information & Management*, vol. 45, no. 2, pp 131-142.

Shaw, Adrienne (2010). What is video game culture? Cultural studies and game studies. *Games and Culture*, vol. 5, no. 4, pp. 403-424.

Stahl, Günter K.; Kristiina Mäkelä; Lena Zander; and Martha L. Maznevski (2010). A look at the bright side of multicultural team diversity. *Scandinavian Journal of Management*, vol. 26, no. 4, pp. 439-447.

Stein, Volker; and Tobias M. Scholz (2016). The intercultural challenge of building the European esports league for video gaming. In C. Barmeyer; and P. Franklin (eds.), *Intercultural management: A case-based approach to achieving complementarity and synergy*. London: Palgrave, pp. 80-94.

Superdata (2015). *Esports – The market brief 2015*, New York: Superdata.

Superdata (2017). *Esports – Courtside playmakers of 2017*, New York: Superdata.

Takahashi, Dean (2015). The esports craze will generate $1.8B a year by 2020. http://venturebeat.com/2015/10/05/the-esports-craze-will-generate-1-8b-a-year-by-2020. Accessed 29 February 2020.

Taylor, T. L. (2012). *Raising the stakes: E-sports and the professionalization of computer gaming*, Cambridge: MIT Press.

van Knippenberg, Daan; and Julija N. Mell (2016). Past, present, and potential future of team diversity research: From compositional diversity to emergent diversity. *Organizational Behavior and Human Decision Processes,* vol. 136, pp. 135-145.

Wagner, Michael G. (2006). On the scientific relevance of esports. *Proceedings of the 2006 international conference on internet computing and conference on computer game development*, pp. 437-440.

Weststar, Johanna (2015). Understanding video game developers as an occupational community. *Information, Communication & Society*, vol. 18, no. 10, pp. 1238-1252.

Witkowski, Emma (2010). Probing the sportiness of esports. In J. Christophers; and T. M. Scholz (eds.), E*sports yearbook 2009*. Norderstedt, Germany: BoD, pp. 53-56.

Zakaria, Norhayati; Andrea Amelinckx; and David Wilemon (2004). Working together apart? Building a knowledge-sharing culture for global virtual teams. *Creativity and Innovation Management,* vol. 13, no. 1, pp. 15-29.