

Does Excel Esports Really Constitute an Esports? Definitional/Technological Categorisation and Assessment of Market Potential

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ABSTRACT: Excel eSports is an innovative and growing form of eSports that distinguishes itself from traditional eSports by focusing on the spreadsheet software Microsoft Excel. Whether Excel eSports is recognized as eSports depends on the definition: narrower definitions exclude it, while broader definitions that consider its competitive nature and information technology usage recognize it as a legitimate form of eSports. This paper also assesses the market potential of this new phenomenon. Despite limited data, the evaluation based on global Excel user numbers and comparisons with established eSports suggests that peak viewership could range from 124,000 to 3.7 million, while the number of active Excel eSports players could potentially range from 992 to 15,300.

KEYWORDS: Esports, Computer Game, Video Game, Microsoft Excel, Information Technology, Communication Technology, Definition, Market Potential

I. INTRODUCTION

eSports can take many different forms. While eSports is often only associated with competitive computer and video games such as League of Legends or Call of Duty, the International Olympic Committee (IOC) favours the virtualisation of existing sports in the Olympic Virtual Series, which is also commonly referred to as the eSports Olympics. For example, tournaments in the virtual versions of archery, taekwondo and tennis will take place in the Olympic Virtual Series/Olympic eSports Series (Parry and Giesbrecht, 2023). One particularly unusual potential form of eSports, however, is Excel eSports. Excel eSports is not, as is usually the case, played on the basis of a computer or video game programmed specifically for this purpose, but instead uses the Microsoft Excel spreadsheet programme for this purpose, which is originally used in a corporate context (Sacco, 2021).

However, it is not clear whether Excel eSports is an eSports by definition. Although the competitions are advertised as eSports competitions, there are also critical voices regarding this categorisation (Daum, 2023). However, the classification of a competition as an eSports is certainly relevant, as it can have implications regarding the non-profit status of the competition, for example, if governments were to recognise eSports as non-profit.

This paper therefore aims to shed light on whether Excel eSports fulfils the definition of eSports and therefore constitutes an actual eSports. This will be followed by a discussion of the market potential that can arise from Excel eSports.

To this end, the second section begins with an explanation of the development of Excel eSports and then explains the current structure of Excel eSports, as well as the procedure and its provisions. This introductory section explaining Excel eSports is necessary in order to be able to make a comparison with the eSports definitions later on. This is followed by a list used definitions of the term eSports. In addition, the terms game and computer and video games are also defined, which is necessary as many definitions for the term eSports use the term computer and video games as an essential component. It is then explained how a market potential assessment can be carried out in theory. In chapter three, the definitions presented are then compared with Excel eSports in order to determine whether Excel eSports represents an actual eSports in the definitional sense. The fourth section then serves to determine the market potential for Excel eSports. However, the determination of market potential is characterised by considerable uncertainty, which results from the novelty of Excel eSports and the availability of data, as well as the insufficient comparability of Excel eSports with other types of eSports.

II. THEORETICAL FOUNDATION

A. Definition of eSports

The term eSports is neither uniformly defined nor legally regulated and a large number of proposed definitions are available (Groen et al., 2020). The definition also changes repeatedly or is supplemented by essential aspects – therefore, the definitions used in the paper should be reflected on at a later date against the background of the publication

date. According to Müller-Lietzkow (2006), eSports is defined as ‘the competitive playing of computer and video games [...]. [...] in a variety of forms [...]. [...] in both individual and team disciplines’.

However, since according to this definition, competitive gaming on home consoles would also constitute eSports, Breuer (2011) narrows down eSports further by defining competitive gaming as eSports only if it is ‘flanked by certain framework conditions such as the regular, planned and training-supported use [...] of the media’.

Görlich and Breuer (2020) are based on the definition by Müller-Lietzkow, but, based on the definition by Breuer, they define it more narrowly and see the requirement of a pronounced competitive character in combination with training in order for a computer or video game to constitute an eSports. They also consider so-called mobile games, which are played on portable devices such as smartphones, to be subsumable under eSports.

In general, many definitions are based on Wagner’s definition. Wagner (2006) defines eSports as ‘an area of sporting activity in which people develop and train mental or physical skills through the use of information and communication technologies’. The International eSports Federation defines eSports as a competitive sport ‘through the use of IT and communication technologies such as PCs, display devices, networks and other electronic devices’ (Thorhauer, Jakob and Ratz, 2018). The market research institute Newzoo (2018), which specialises in the gaming market, adds that playing computer or video games requires competitive gaming and an organised form (e.g. a competition) with a specific goal (e.g. in the form of titles or prize money) to count as eSports. Hamari and Sjöblom (2017) define eSports as ‘a sport in which the most important aspects of the sport are facilitated by electronic systems; the input of players and teams and the output of the eSports system are mediated by human-computer interfaces’, which makes the definition of eSports very technically orientated and not just limited to computer or video games. The Olympic Council of Asia (n.d.), on the other hand, defines eSports much more narrowly and only includes multiplayer games in its definition: ‘eSports (electronic sports) is a competitive sport in which gamers use their physical and mental skills to compete against each other in specific genres of video games in a virtual, electronic environment. These eSports video game titles can be played on various electronic devices (PC, mobile devices, consoles, unmanned vehicles, unmanned aerial vehicles, robots, simulations, etc.) and are multiplayer games in which eSports athletes compete against each other and/or form teams to compete.’

To summarise, the common definitions of eSports can be seen as the competitive, rule-based competition between human players in computer and video games on various digital platforms. This is supported by professional training, with both individual and team disciplines as well as mobile games

falling under the term. However, it can also be stated that the definitions generally show great variability. What all definitions have in common is that it is a competitive sporting activity. In contrast to the other definitions, the market research institute Newzoo defines eSports as requiring a certain degree of professionalisation. The definitions also differ greatly in terms of the technical means used. While the Olympic Council of Asia limits eSports purely to video games, many international definitions use a very open demarcation with regard to the technical means, according to which eSports does not require the use of computer or video games, but merely sporting activity through the use of IT and communication technologies.

For the purposes of this paper, a very open definition is used with regard to technical means, so that the international definition of eSports is a professionally organised, competitive sporting activity using IT and communication technologies.

B. Definition of computer and video games

As a significant proportion of the definitions of eSports are based on the term computer and video games, it is necessary at this point to also define this term in order to be able to determine on an ongoing basis whether Microsoft Excel constitutes an eSports.

For this purpose, it may be useful to first look at the definition of the term game itself. The Dutch historian Huizinga (1938) defines play as a voluntary activity within fixed rules that is outside of everyday life and generates pleasure and excitement. He describes play as a ‘magic circle’ in which its own rules apply and which is separated from reality. He also sees play as a fundamental cultural phenomenon that not only serves as entertainment, but also characterises art, law and science. Haase (2003) also defines play in a similar way. According to him, play can be characterised by certain features: It is voluntary, purposeless, pleasure-orientated, risky and removed from everyday life. It is also characterised by virtuality, non-productivity, spontaneity and fixed rules. These characteristics characterise the motivation of the players and influence the design of game concepts, rules and means of play.

The definitions of video games, on the other hand, are more specific. According to Frasca (2001), video games are ‘all forms of computer-based entertainment software, whether text-based or image-based, that are used on electronic platforms such as personal computers or consoles and involve one or more players in a physical or networked environment.’ Aarseth (2001) defines computer games in a similar way: ‘A computer game is an interactive, rule-based system that runs on a computer and in which the player influences events through their actions and decisions within a virtual environment.’ Tekinbas and Zimmermann (2004), who define video games as a formal system of rules and mechanisms that structure and influence the player’s interaction within the virtual world, run on a computer or

console. Juul (2005) also defines video games as a set of rules that is conveyed through the computer-generated representation of a fictional world, which the player can influence through input and decisions (see Table 1).

Table 1: Comparison of the various definitions of video and computer games

Author	Definition of video game/ computer game	Main characteristics
Frasca (2001)	Video games are all forms of computer-based entertainment software that are used on electronic platforms and involve one or more players in a physical or networked environment.	Interactivity, use of platforms (PC, console), physical or networked environment, entertainment elements
Aarseth (2001)	A computer game is an interactive, rule-based system that runs on a computer in which the player influences events through actions and decisions.	Interactivity, set of rules, influence through actions, virtual world
Tekinbas and Zimmermann (2004)	Video games are formal systems of rules and mechanisms that structure the player's interaction within a virtual world.	Interactive systems, rules, virtual world, influence of the player
Juul (2005)	Video games are a set of rules that are conveyed through the computer-generated representation of a fictional world that the player can influence.	Set of rules, computer-generated fictional world, influence by the player

The definitions of computer and video games can be either broad or narrow. Narrow definitions of the term video game focus on a necessary set of rules and on the visual aspects of a virtual world; there are also definitions that see the original concept with entertainment elements as a prerequisite for the existence of a video game. Broad definitions of the terms only recognise the requirement for interactive software for electronic platforms such as PCs or consoles, in which players are involved through their actions and decisions.

C. Emergence of Excel eSports

The beginnings of competitive Microsoft Excel competitions date back to 2012. Several thousand participants took part in the ModelOff competition. The best 16 participants were then given the opportunity to compete for prize money in a face-to-face competition in New York City (Jelen, 2022). The competition focused on the use of Microsoft Excel to create financial models, known as financial modelling, and was promoted and financially supported by Microsoft and other sponsors. However, the competition was discontinued in 2019 (Mazyopa, 2023).

After the end of the ModelOff competition, Latvian Andrew Grigolyunovich founded the Financial Modelling World Cup organisation in 2020, which is responsible for the current Excel eSports competitions. The actual birth of the current Excel eSports format is considered to be 8 June 2021, when eight participants competed against each other in ‘The 888 Battle’ in a live-streamed format (Financial Modeling World Cup, 2024a).

D. Current structure of Excel eSports

There are currently three Excel eSports competitions (see Table 2), all of which are run by the Financial Modelling World Cup organisation. The Financial Modelling World Cup (FMWC) is a competition designed to create financial models with Microsoft Excel, which takes place online eight times a

year. Participants are given two hours to solve three case studies. They receive accompanying PDFs containing the instructions for the individual case studies and often accompanying data in an Excel spreadsheet. Based on a financial model, which usually has to be fundamentally set up, various questions then have to be answered. The best-known and most widespread competition is the Microsoft Excel World Championship (MEWC). In a tournament of ten virtual rounds, participants can qualify for the elimination competitions in which the finalists are determined. The final in Las Vegas, which takes place in person, will then determine the winner at the climax of the competition. In addition to the global competition, there are also local tournaments in some countries, such as Brazil and South Africa (Financial Modelling World Cup, 2024a). Both the online rounds and the face-to-face final are commented on and streamed live. The final is also broadcast on the ESPN sports channel (Dumas, 2023).

The third competition is the Microsoft Excel Collegiate Challenge (MECC). Organised in cooperation with the Eller College of Management at the University of Arizona, the competition is only open to students. In several virtual selection rounds, students can secure a place in the semi-finals, which will then determine the finalists in Las Vegas. The final will be commented on and streamed and also broadcast on the university sports-focussed television channel ESPNU. There is both an individual and a team competition (Microsoft Excel Collegiate Challenge, 2024a). The tasks of the Microsoft Excel World Championship and the Microsoft Excel Collegiate Challenge are similar, or in some cases identical. They are designed to last half an hour and consist of an Excel spreadsheet. This table usually contains 140 questions in seven levels of varying difficulty as well as five bonus questions. The tasks are based on an overarching topic (for example, a specific board game or the economic background of the video game EVE Online), which serves to thematise the topic and are to be solved using Excel formulas, whereby a manual solution is also possible, but not expedient – the tasks are deliberately designed to be playful (Pierce, 2024).

Table 2: Comparison of the various Excel eSports competitions

Competition	Financial Modeling World Cup	Microsoft Excel World Championship	Microsoft Excel Collegiate Challenge
Abbreviation	FMWC	MEWC	MECC
Special feature	focus on financial modelling	selection rounds are streamed live and commented on	participation is only possible for students
Final	-	in presence in Las Vegas	in presence in Las Vegas
Final qualification (simplified)	-	virtual selection rounds, elimination competition, last chance qualification round in Las Vegas, semi-finals, final	virtual selection rounds, last chance qualification round in Las Vegas, semi-finals, final
Number of rounds per year	8 rounds	10 rounds + several elimination rounds	6 rounds
Participation fee	25 USD/round (15 USD/round for the U-25 age group)	20 USD/round	-
Prize money (total Amount)	25,000 USD	37,500 USD	33,000 USD
Broadcast	-	selection rounds: livestream on YouTube, semi-finals and final: livestream on YouTube + broadcast on ESPN	semi-finals and final: livestream on YouTube + broadcast on ESPN

Sources: Financial Modeling World Cup (2024a); Microsoft Excel Collegiate Challenge (2024a)

E. Current media coverage of Excel eSports

The Microsoft Excel spreadsheet programme has between 750 million and 1.2 billion users worldwide according to unofficial figures (Rebmann et al., 2023). Far fewer people play Excel eSports. Although no official participant figures are available, as the Financial Modeling World Cup organisation does not publish official figures regarding participants and sales, unofficial figures show that several thousand people took part in the predecessor competition ModelOff (Jelen, 2022). The number of data sets in the ranking of the selection rounds for the Microsoft Excel World Championship indicates up to 300 participants in the selection rounds (Financial Modelling World Cup, 2024b) and around 11,000 students have registered for the Microsoft Excel Collegiate Challenge (Microsoft Excel Collegiate Challenge, 2024c).

In contrast, the media coverage of Excel eSports is much more advanced. For example, the video of the final of the Microsoft Excel World Championship 2023 has currently generated 2.8 million views on YouTube (Financial Modelling World Cup, 2024c). Excel eSports is also attracting attention in the media. For example, the 2024 final was broadcast live on the US sports channel ESPN (ESPN, 2024). Individual participants were also featured in television programmes in their home countries – for example in Italy, Denmark and Australia (The Sunday Project, 2024). In addition to TV formats, Excel eSports is also reported on in print media. For example, the 2023 final was covered by the Wall Street Journal (McMillan, 2023) and coverage of the 2024 final made it onto the front page of the New York Times (Zhuang, 2025a; Zhuang, 2025b).

However, Excel eSports has not yet reached the popularity of other eSports. Some eSports events have become mass phenomena where spectators fill entire stadiums and companies in the sector sometimes generate annual revenues in the three-digit million range (Nufer and Gröber, 2023).

III. DEFINITIONAL CATEGORISATION OF EXCEL ESports

A. Review of Microsoft Excel with regard to the fulfilment of the definition criteria of the terms computer and video game

In order to classify whether Excel eSports constitutes an eSports, it is necessary to categorise it according to the definitions presented above. However, it is first necessary to clarify whether Microsoft Excel can represent a computer or video game in the context of Excel eSports. A preliminary definition of the term sport and the categorisation of whether eSports can generally constitute sport will be omitted at this point.

Firstly, we will analyse whether a game with the Microsoft Excel spreadsheet program is possible at all by definition. Since Excel eSports is ‘played’ in the Microsoft Excel programme, which is the focus of the professional activity of the majority of participants, Excel is not removed from everyday life. Unproductivity and lack of purpose are also only given to a limited extent when playing in Excel, as skills that are useful in everyday working life are trained and improved while ‘playing’. As a result, although there may be an emphasis on pleasure, voluntariness and an entertainment aspect when ‘playing’ with Microsoft Excel, it can certainly be argued that a ‘game’ with Microsoft Excel is not possible, which would render an investigation into whether Excel eSports can constitute a computer or video game obsolete. Nevertheless, a game in Excel is considered possible in the context of this paper. One of the reasons for this is that many other, more cognitively orientated games (such as chess or Sudoku) can also be seen as having a purpose and productive character. Some games can also be seen as being removed from everyday life – for example, quite a few computer and video games are based on the aspect of simulating everyday life.

Since a game in Microsoft Excel can be assumed to be possible, it must now be determined whether Microsoft Excel can also represent a computer or video game. According to the narrow definition of computer and video games (Tekinbas and Zimmermann, 2004; Juul, 2005), a virtual world that can be influenced is required to represent a computer or video game. According to Girvan (2018), a virtual world is a simulated environment that is actively inhabited and designed by its inhabitants and represents a shared space. Their experiences and interpretations are shaped by their bodies and psychological reactions, while their movements and interactions with objects and other people develop a shared understanding of the world at that very moment. Since the tasks of Excel eSports lack the criteria to fulfil the definition

of a virtual world (for example, there is no simulated environment in the form of a shared space), the tasks of Excel eSports do not represent a virtual world. Therefore, Excel eSports does not fulfil the narrow definition of computer and video games and Excel eSports does not constitute a computer or video game according to the narrow definition. However, if one compares Excel eSports with the broad definition of the terms, a different picture emerges. The broad definitions only recognise the requirement for interactive software for electronic platforms such as PCs or consoles, in which players are involved through their actions and decisions (Frasca, 2001; Aarseth, 2001). Since Microsoft Excel is interactive PC software and, in the case of Excel eSports, the players interact with this software and are involved through their formula entries, Excel eSports is a computer game, at least according to the broad definitions.

B. Review of Excel eSports with regard to the fulfilment of the definition criteria of the term eSports

eSports is generally defined as a competitive, rule-based contest between human players in computer and video games on various digital platforms. This is supported by professional training, with both individual and team disciplines as well as mobile games falling under the term. As this definition defines the presence of a computer or video game as a requirement, Excel eSports cannot constitute an eSports if the narrow definition of the terms computer or video game is used, as Excel eSports does not fulfil the definition criteria of a computer or video game in the narrow interpretation.

However, according to the broad definitions, Excel eSports is a computer game, which means that the other criteria of the definition must also be met. The competitive, rule-based competition in Excel eSports is provided by the competitions of the Financial Modelling World Cup organisation. Likewise, only human players compete in these competitions, which are essentially designed as individual disciplines. The digital platform is provided by the Microsoft Excel software. Support through professional training is also provided in the case of Excel eSports. The latter component is covered by a variety of training components. For example, there are regular exercises to prepare for Excel eSports competitions (Verma, 2024) or specific training and learning programmes designed as Excel eSports (Early, 2024). As all the definition criteria for the term eSports are therefore met, Excel eSports constitutes an eSports if the term computer or video game is interpreted broadly.

Definitions that rely less on the term computer or video game define eSports as a professionally organised, competitive sporting activity through the use of IT and communication technologies. Excel eSports is organised professionally, which is reflected, among other things, in the structure of the competitions as an international tournament, the existence of prize money and the existence of rules for this sport (Microsoft Excel Collegiate Challenge, 2024b). The sporting and competitive character is also given by the competitions

of the Financial Modeling World Cup organisation, as the athletes often prepare themselves extensively through training and other measures. As Excel eSports is based on the use of Microsoft Excel software, the use of IT and communication technologies in the context of eSports is also sufficiently fulfilled. As all definition criteria are therefore met, Excel eSports constitutes an eSports according to this definition of eSports (which is also used in this paper).

In summary, it can therefore be concluded that with a narrow interpretation of the terms computer or video game, Excel eSports does not fulfil the criteria for a computer or video game, making it impossible to fulfil the relevant definition of an eSports and Excel eSports therefore cannot constitute an eSports. However, in the case of a broad interpretation of the term computer or video game, Excel eSports can also constitute an eSports, as in the case of definitions that are more focussed on the use of IT and communication technologies.

IV. MARKET POTENTIAL ASSESSMENT FOR EXCEL ESports

A. Methods of assessing market potential

There are essentially three methods to choose from for determining the market potential or assessing the market size. Not all of these methods are equally useful for every market to be evaluated and some methods are usually not applicable due to limitations (e.g. the lack of necessary data or comparative objects) (Voeth and Herbst, 2013).

A widely used method for determining market potential is the top-down approach. Starting with the most comprehensive market data available, often from external sources, this is narrowed down to the specific market being sought by applying filters. From the overall market size, for example at national or global level, filters such as demographic or geographical characteristics or other specific factors are applied until the market has been reduced to the target market. The advantage of the top-down approach is that it is a relatively simple and easy-to-use approach that builds on existing data. However, building on existing data is also a major disadvantage, as the existence of a basic stock of data is necessary and incorrectly set filters based on the data set can also lead to inaccuracies in the results (Kotler and Keller, 2021).

In contrast, the bottom-up approach starts at the smallest available data level (e.g. product-individual sales figures), which are aggregated for all players in the market (for which data is available). This total is then used to extrapolate (to include players whose data is not available) to the overall market. The application of the bottom-up approach usually leads to very specific and precise data, especially in niche markets, but it also involves a great deal of effort and requires the availability of a large amount of data. Furthermore, the approach is not suitable for determining the market size of a rapidly growing market (Fairbanks and Buchko, 2018).

Another method for determining market size is the proxy method. The proxy method uses existing data from similar products, services or markets to assess the market size. For this proxy market, the necessary data is collected to assess the market size, which is then adapted to the analysed market. The adjustments are based, for example, on demographic or socio-cultural differences between the proxy market and the analysed market. The application of the proxy method requires the availability of data for the proxy market. The result is also highly dependent on the adjustments, which are based on assumptions. To ensure the accuracy of the determined market size, the adjustments made should be critically assessed and, at best, compared with available data (e.g. from industry reports) (Waheeduzzaman, 2008).

B. Selection of methods for market potential assessment

Assessing the market potential of Excel eSports is generally difficult. This is due to the novelty of Excel eSports, which means that little reference data is available and also due to the lack of comparability of Excel eSports with other eSports. There is also a lack of general data availability, as the Financial Modeling World Cup organisation does not publish official figures regarding participants and revenue. As a result, no official figures are available regarding the current number of participants – only unofficial figures, according to which several thousand people took part in the predecessor competition ModelOff (Jelen, 2022), the number of data sets in the ranking of the selection rounds for the Microsoft Excel World Championship, according to which up to 300 participants took part in the selection rounds (Financial Modelling World Cup, 2024b) or around 11,000 students registered for the Microsoft Excel Collegiate Challenge (Microsoft Excel Collegiate Challenge, 2024c) are available. The top-down approach and the bottom-up approach cannot be considered as methods for assessing the market potential of Excel eSports. The top-down approach is ruled out as the most comprehensive market data available would be the market data of the entire global eSports market. A derivation from this data for the Excel eSports market does not appear to make sense, as it cannot be ensured that Excel eSports is even included in the market data due to the lack of comparability with regular eSports. In addition, a derivation from the global market data would require a high level of filtering, which leads to a high risk of inaccuracies in the results. The bottom-up approach is also ruled out, as no low aggregated data is available for Excel eSports. Furthermore, Excel eSports is a fast-growing market due to its novelty, which further counteracts the use of the bottom-up approach. This leaves the proxy approach as the valuation method. However, as there is no adequate object of comparison here either, the proxy approach in its pure form cannot be used as a method for assessing the market potential of Excel eSports. However, key elements of the proxy approach are used to determine factors in order to assess the market potential of

Excel eSports, which is why the method used is most similar to the proxy approach.

C. Carrying out the market potential assessment for Excel eSports (peak number of viewers)

The actual market potential assessment is therefore derived from the number of users of the Microsoft Excel computer programme. Based on this, the number of potential viewers and participants in Excel eSports is derived. Various computer games are used as proxies to derive this figure. An evaluation of the potential turnover is omitted at this point, as this could easily be approximated by multiplying the number of potential participants by the participation fees for the individual rounds (however, it should be noted that there are discounts and benefits if you take part in all rounds). This would require both consistency in the participation fees and the condition that no further competitions are created in the Excel eSports sector apart from the competitions of the Financial Modeling World Cup organisation. In addition, a large proportion of eSports revenue usually comes from sponsorship (Nufer and Gröber, 2023). It is not possible to estimate whether this is also the case for Excel eSports or will be the case in the future, partly due to the unavailability of current data, which is another reason why the potential revenue for Excel eSports cannot be reliably determined.

The global user figures for the Microsoft Excel computer programme are used as a starting point for the calculation. Although these are not officially published, current estimates assume 750 million to 1.2 billion users worldwide (Rebmann et al., 2023). However, since Excel eSports is primarily aimed at users who have an advanced or expert level in Microsoft Excel, it is appropriate to use only these groups from the global user figures. In various surveys, between 33% and 51% of users rate their Microsoft Excel skills at this level (Gration, 2022; Global Excel Summit, 2023). Multiplying these figures results in a range of 247.5 million to 612 million users of the Microsoft Excel computer programme who have a sufficient skill level for Excel eSports. As Excel eSports is not an eSports based purely on an entertainment aspect like other eSports, but is based on the Microsoft Excel computer programme, which is predominantly used in a professional and occupational context, it can be assumed that only around 10% of users would consider playing Excel eSports. This proportion is not based on a falsified basis, but could be verified by surveys. This means that around 24.8 million to 61.2 million users are potentially interested in Excel eSports. In order to determine the number of potential viewers from the number of potential interested parties, different types of eSports are used and the proportion of players who watch eSports competitions for their game is determined. For the game League of Legends, for example, there are around 115 million active players (Liu, Ma and Wang, 2022), while up to 6.4 million viewers watched the World Championships for this game at its peak (Esports Charts, 2024a), which corresponds to a rate of 5.6% in relation to the number of

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players. In contrast, 500 million users worldwide are registered for the game Fortnite (Clement, 2023), but only 2.3 million people watched the eSports events at their peak (Esports Charts, 2024b), which corresponds to a rate of just 0.5%. This comparatively low rate is due to the differences in the data, as League of Legends uses active players as a benchmark, while Fortnite uses registrations as a comparison. Consequently, it cannot be ruled out that double counting or people who are no longer active players are included in the population. The game Valorant has 28 million monthly players (Knudsen, 2024), while up to 1.7 million of them watched the eSports events at the peak (Esports Charts, 2024c), which corresponds to a rate of 6.1%. If we now apply the minimum and maximum calculated ratings to the potential interested parties for Excel eSports, we arrive at a range of 124 thousand to 3.7 million live viewers for the competitions at the peak. The basic dimension of this range is also not completely inadequate when you consider that currently, for example, the video for the final of the Microsoft Excel World Championship 2023 has generated 2.8 million views on YouTube (Financial Modelling World Cup, 2024c). Figures 1 and 2 show calculation curves for the peak numbers of viewers (lower and the upper end of the range).

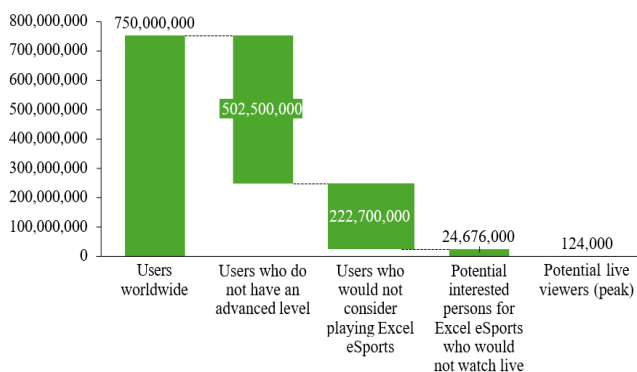


Figure 1: Calculation curve for the peak numbers of viewers (lower end of the range)

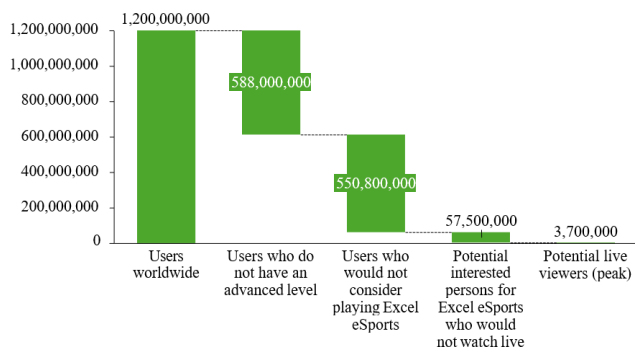


Figure 2: Calculation curve for the peak numbers of viewers (upper end of the range)

D. Carrying out the market potential assessment for Excel eSports (e-athletes)

The assessment of the potential number of active and competitive Excel eSports players is based on the number of

24.8 million to 61.2 million potential interested parties for Excel eSports determined above. In order to determine the number of potential, competitive e-athletes from the number of potential interested parties, different types of eSports are used and the proportion of players who are active as competitive e-athletes is determined. For the game League of Legends, there are around 115 million active players (Liu, Ma and Wang, 2022), whereby 7051 are categorised as e-athletes (Esports Charts, 2024a), which corresponds to a ratio of 0.006% in relation to the number of players. In contrast, 500 million users worldwide are registered for the game Fortnite (Clement, 2023), but only 2181 players are categorised as e-athletes (Esports Charts, 2024b), which corresponds to a rate of just 0.0004%. However, this very low rate is also due to the differences in the data, as League of Legends uses active players as a comparative figure, while Fortnite uses registrations for comparison, although it cannot be ruled out that double counting or players who are no longer active are included in the population. The game Valorant has 28 million monthly players (Knudsen, 2024) and 6861 e-athletes (Esports Charts, 2024c), which corresponds to a rate of 0.025%. If we now apply the minimum and maximum calculated quota to the potential interested parties for Excel eSports, we arrive at a range of 992 to 15,300 active and competitive Excel eSports players. This range can only be compared with the current number of Excel e-athletes, which can be determined by adding the unofficial numbers of participants in the three competitions of the Financial Modelling World Cup organisation. This brings the current number of Excel e-athletes to about 13,000 (Financial Modelling World Cup, 2024b; Microsoft Excel Collegiate Challenge, 2024c). With this number, however, double counting cannot be ruled out if participants take part in several competitions and inactive e-athletes are included as well.

Figures 3 and 4 illustrate the calculation process for the number of Excel e-athletes (lower and the upper end of the range).

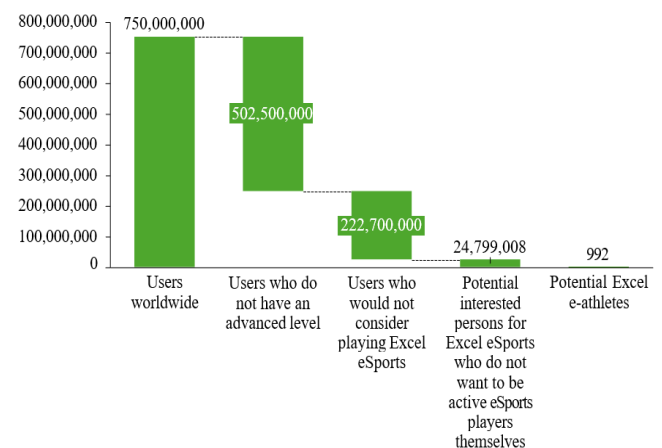


Figure 3: Calculation process for the number of Excel e-athletes (lower end of the range)

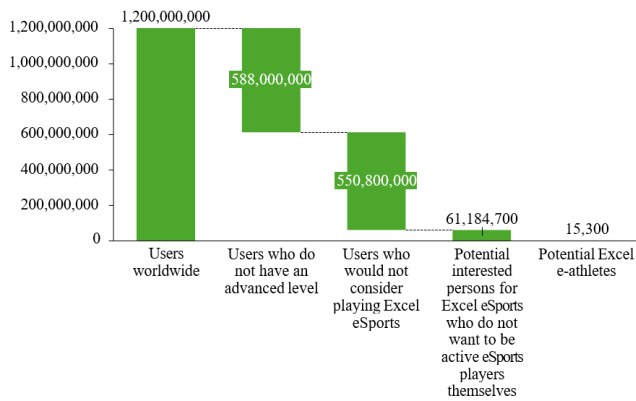


Figure 4: Calculation process for the number of Excel e-athletes (upper end of the range)

V. CONCLUSION AND OUTLOOK

Excel eSports represents an unconventional and emerging form of eSports that differs significantly from traditional eSports in that it is based on commercial software that is primarily used in a corporate context. However, whether Excel eSports can be recognised as eSports by definition depends on the definition chosen.

In a narrow definition of the term eSports, or the terms computer and video game, which requires the existence of a virtual, simulated environment, Excel eSports does not fulfil the necessary criteria and therefore cannot be considered an eSports. The assessment of whether Excel eSports is a computer or video game can already be destroyed by the definition of the term game itself. A very narrow interpretation of the term means that Excel cannot be played. However, this narrow definition-based assessment is unrealistic, as explained above, which means that a game in Excel can also be categorised as a game. In contrast, a more far-reaching definition allows Excel eSports to be categorised as an eSports. This far-reaching view recognises the competitive element, the use of IT technologies and the need for training, which means that Excel eSports fulfils all the essential requirements of an eSports and can be classified as such. However, this far-reaching view is certainly debatable and requires at least a less dogmatic assessment of the matter. In addition to categorising whether Excel eSports constitutes an eSports, this paper serves to evaluate the market potential for Excel eSports. However, this assessment poses a particular challenge due to the novelty of the market and the limited availability of specific data. Methods such as the top-down or bottom-up approach are not applicable, as either no suitable data is available or the market is still growing too fast. The proxy approach, on the other hand, offers a certain degree of orientation, although this can also only be used in part due to the lack of direct comparative objects.

Indirect approaches were therefore used to assess the market potential. By analysing global Excel user numbers and comparing them with established eSports, an estimate of potential viewers and active Excel e-athletes can be made. It is assumed that between 124,000 and 3.7 million people could

watch Excel eSports events at their peak, while the number of active eSports players could be between 992 and 15,300 in the future.

These ranges are characterised by assumptions based on existing data and comparisons with other eSports. It is important to emphasise that the lack of precision in the available data and the current development of the market mean that the results are subject to uncertainty. In order to make the estimates more precise in future, more comprehensive data collection and analyses would be necessary.

Excel eSports remains an exciting one-off in the eSports landscape with a dynamic future. Whether this future will be successful, however, remains to be seen. In any case, the future prospects of the scene are planned to be expansive. For example, significantly higher prize money, for example in the millions, is not ruled out, as is the organisation of competitions as part of the Olympic Virtual Series/ Olympic eSports Series (Pierce, 2024). The decisive factor here will also be how Excel eSports finds favour within eSports and becomes more widespread in the world.

The barriers to entry for new participants will play a particularly important role here. For example, a ban on so-called pre-programmed lambdas (custom formulas programmed by participants themselves that can be used in the competition) has been discussed in the scene for some time in order to keep the barrier to entry as low as possible. However, one argument against such a ban is that the barrier to entry is currently still low – for example, one finalist in the student competition said that he only discovered the programme a year ago and still made it to the final. Competitions at regional level (so-called local chapters), for example, are also trying to keep the barriers low. With somewhat simpler tasks and assignments in the regional languages, the competitions are aimed in particular at beginners and interested parties. Such local chapters already exist in Brazil and the UK, for example. The success of such a regional competition will also depend on whether eSports will be politically recognised as a non-profit organisation in the future. Then it will also be legally and ultimately financially relevant whether Excel eSports constitutes an eSports.

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