

HALLYU IN THE HEART OF EUROPE: The rise of the Korean Wave in the digital space

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Abstract. *Hallyu, the global cultural phenomenon that is also known as the Korean Wave affects its fans in terms of both their openness to Korean culture and their purchase intentions. Despite this, research into the psychological mechanism behind it is lacking. The aim of this study is to discover a) the relationship between Hallyu culture and the psychological factors associated with interpersonal relationships mediated through digital platforms; and b) the psychological factors that contribute to one's Korean Wave related purchase intention. The survey was conducted using an online questionnaire. Using a purposive sampling method, the core population of the survey consisted of Hallyu fans in Hungary, who were reached through various, Korean culture-specialised social media groups. Data from 495 eligible respondents was analysed using the PLS-SEM method with SMART PLS3 software. It can be concluded that fear of missing out (FOMO) and self-pressure to be member of fandom inspire presence in the online space, which can increase purchase intention towards K-goods. Results shows that the examined psychological elements have the greatest impact on two age groups (20-23 and 30-43 years old); however, due to its higher level of income and already established living circumstances the second group can respond to marketing activities to a greater extent. It has also been determined that the level of fandom involvement has a positive effect on purchase intention, something which can be further enhanced by FOMO and peer pressure. Based on the correlations identified, more effective marketing activities can be planned among fans through social media and influencers in fan groups.*

Keywords: Hallyu, FOMO, Fandomisation, Peer-Pressure, K-Pop, Purchase intention, Path analysis.

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Introduction

In today's globalised world, the Internet has made it possible for consumers as well as companies to establish relationships globally. The basis of these relationships is often culture, or at least, some of its elements. Perhaps the most well-known worldwide phenomenon related to the global spread of culture through the Internet is South Korea's Hallyu. Hallyu, or the Korean Wave as it is also called, is the collective name for the spread of Korean mass culture around the world, including music, series, games, Korean cuisine and more (Roll, 2021). At the international level, more and more research and studies are being done on this topic (Kim & Park, 2020), but very few focus on its Hungarian aspects. Based on an analysis of previous Hungarian-language literature, this study describes the main characteristics of fans in Hungary, and by building on the results of primary research, models the relationship between fans' digitally mediated passion for K-pop/K-drama, and their purchasing behaviour in relation to products and services displaying Korean culture to varying degrees.

Hungarian culture, when compared to other Central European cultures, shows some similarities to them, based on their geographical location. However, in other essential respects, Hungarian culture is very much unique. Hungarians and the original tribes' ethno-symbolism both draw their origins from Asia, which represents the centre of their national revival (de Zepetnek & Vasvári, 2011). During the 19th century, Hungarians tried to develop an entirely distinct identity from the Austrians and Slavs, but after losing the war of independence in 1849 a process of westernisation began, leading to the country's increasing assimilation into the West. As a result, Hungarian national identity was left in a confused state, somewhere midway between the East and the West, and Hungary has tried to maintain its position as a country which "splits the difference" between the two cultures (Facos, 2019). Over the centuries, Korea has gone through a similarly mixed process of development. During the period of Joseon Dynasty, a Korean diplomat who visited China, introduced some theological papers after he returned at the beginning of the 17th century. In the middle of the 18th century a king of the Joseon Dynasty outlawed Catholicism, which he regarded as a practice of evil. Later in the century French and Chinese catholic priests arrived to support Korean Christians, despite persecution and the execution of many priests and believers (Kim, 1983; Davies, 1994). During the 19th century, Korea was afflicted simultaneously by three trade and military threats which made the country open up to the West. This led to fundamental changes in the education system, which became more experientially-orientated and supportive of English language learning. Christians also came into the country, making it one of the main religions active there. Nevertheless, amid all these changes, citizens were still stuck with Confucianism as they clung to the belief that their Korean identity was highly based on that. Confucianism thus for a long time remained the primary influencing factor for Korean national identity. However, due to the 20th century westernisation the identity of Koreans began to change. In the 20th century, as Japan took over Korea, Koreans were forced to assimilate to the Japanese culture of their occupiers. Post-World War 2, after all the Japanese forces had left the country, Korean culture started to get rediscovered and Confucian traditions had the chance to recover their place in everyday life. However, it is also the case that after the liberation, the U.S Military Government carried out educational reforms in South Korea. Today's South Korean identity is largely a hybrid one, and this is not only due to all the historical influences but also because the country started to globalise some

decades ago (So et. al., 2012). All told, Hungarian mixed culture might be viewed as potentially a good host for Korean cultural products interspersed with Western influences.

In the case of the Korean wave, Europe is considered a secondary target market from a strategic perspective (after Asia and the American continent), yet the number of K-pop and K-drama fans is also constantly increasing in many European countries. Several recent studies have already outlined the characteristics of fans in UK, France, Sweden, Germany, Spain, Austria, Czech Republic, Poland, Romania, Bulgaria and Serbia (Gajzágó, 2021), but information about Hungarian fans has hitherto appeared mainly in Hungarian. Two big studies have been conducted among Hallyu fans (Gajzágó, 2021; Nahm and Jung, 2016); both were primary research surveys involving a high number of respondents. The sample sizes of Nahm and Jung (2016) and Gajzágó (2021) were 2,107 and 1,772 participants, respectively, figures that represent 14.05 and 11.81% of an estimated total number of Hungary-based Hallyu fans that was estimated in 2018 to be around 15,000 (Gajzágó, 2019). According to these researchers' findings, Hungarian fans under the age of 18 years prefer to buy K-pop and K-drama related merchandise products, whereas between ages of 19 to 40 and 50 to 60 they prefer beauty products, while fans aged between 40 and 50 and above 60 prefer travel services. Female respondents mostly buy beauty products, while male consumers predominantly choose merchandising products. Perhaps the most important K-wave merchandise materials for fans are clothes, accessories, and jewellery. Fans actively watch what their favourite star is wearing and are keen to buy it themselves. A unique merchandise product used in the K-pop sector is the so-called "Bomb", a luminous rod that ends in a spherical shape, which fans can use during concerts and other online broadcasts. More modern versions are now Bluetooth-enabled, have a unique design, can be connected to a mobile phone, and have multiple functions. One of these features is colour changing, which allows fans at concerts to work together to coordinate the lights and even draw signs and pictures in the auditorium. Korean pop bands and actors have unique signs, symbols, and logos to increase the effectiveness of merchandising. A K-pop group has its own symbol system, in which not only the group itself has a clearly identifiable logo that can be distinguished from other groups, but also each individual member. In the case of several bands, mascots are assigned to the members and a range of products featuring the members' names and photos are sold (Gajzágó, 2021). For those aged under 35 years, their first encounter with K-pop typically happened through YouTube or other social media sites; by contrast, the older generation were predominantly influenced by Korean dramas and movies. However, both age groups had one important thing in common: they were primarily influenced by reference groups (friends, family members, classmates or colleagues). According to the fans themselves, the element of K-pop with the strongest influence on them is the dancing style of groups. However, a significant difference between the age groups is apparent when it comes to what they view as being the second most significant factor: here, fans under 35 mention song lyrics; respondents above 35 say that Korean culture itself had as much of an impact on them as the lyrics of K-pop songs and the physical appearance of their idols impresses respondents under 25 the most (Sári, 2018).

In the last few years, no similar research has been conducted among Hallyu followers in Hungary, although their number has increased significantly since 2018. According to the latest data, the number of Hallyu community members in Hungary can be estimated at 140,000, while there are 190,000 in Spain and 110,000 in Turkey ("2021 Global Hallyu Status," 2022). If it is considered as a proportion of the total population of Hungary

(9,689,010 people, according to the Hungarian Central Statistics Office (KSH, 2023), the amount of Hallyu devotees is larger than in the other two countries mentioned, so it is definitely worth to research it.

Previous studies have documented many aspects of K-pop fans' behaviour. Kim et al. (2018) describes what products K-pop fans are interested in; Suvittawat (2022) explains how expectations, loyalty, and satisfaction influence their purchase intentions; Nurani and Sobari (2022) report on the brand and advertisement attitudes of K-pop lovers; and the effect of FOMO (Fear Of Missing Out) on fans has been identified by Novalika and Kartasasmita (2021), Ananda and Windah (2021) and Gracella et al. (2021). While all these studies provide relevant information, no integrative model has yet been produced that summarises the factors influencing fans' purchases. The findings of this new piece of research can shed light on certain digital media-related psychological factors determining the purchase intention of K-pop fans, thereby building a model and at the same time, exploring direct and indirect relationships among these factors.

As the K-pop music market grows ever larger, and management agencies focus on selling goods to fans to achieve maximum profits, practical benefits may accrue from research that can show what specific factors result in increased fan purchases. Market participants may find that this study benefits them by providing insights into the fandom community and its behaviour. The results of this study will indicate what is having an impact among the followers of the social media platforms they have opted to focus on in their communication strategy.

Theoretical framework

Hallyu is term used to describe the active spread of Korean cultural content including pop music, dramas, movies, beauty and fashion products and the Korean language as well. The success of this so-called Korean Wave could be accounted for by different concepts ranging from appropriation (Suh et al., 2016) to acculturation (Kim & Kim, 2015) and even cultural diffusion (Kim et al., 2015; Kim & Park, 2016; Kim & Park, 2020). No matter how one chooses to explain it, the key to this success lies in a well-developed strategy of the Korean government to build and improve the image of the country, establishing a unique form of cultural diplomacy (Chen, 2016; Jang & Paik, 2012; Kim & Park, 2020). Beyond macro- and micro- environmental factors (in a business sense), professional marketing activities contributed to Korean culture achieving its current level of fame. This study will not explain all these circumstances in detail. Instead it only focuses on two components of the 4E theory (Fetherstonhaugh, 2009): Everyplace and Evangelism (while the other two components, experience and exchange, also are important, they lie outside the purpose and scope of the study).

“Everywhere” and “Evangelism” as Marketing Tools of K-pop in Digital Space

In the age of the Internet, online communication channels have become a primary source of information and social media platforms have become essential channels of marketing communication (Pyo et al., 2022). Not surprisingly, to distribute the two essential and principal components of Hallyu (K-pop and K-drama), online channels were employed, especially streaming and video sharing sites that are free to use. The channels most commonly used are YouTube for videos, and Spotify for music. K-pop and K-drama products

use more than one channel at once: as part of the integrated communication strategy fans can watch a video on YouTube, listen to the same song on Spotify, and do this while simultaneously checking the Instagram and Twitter posts of the group and the opinions of other fans; they may even contact their idols through Weverse. Traditional channels are also very much in use: performances take place at live concerts and events such as festivals, award ceremonies, and on television, put together like CD albums combined with merchandise knick-knacks (Gajzágó, 2021).

Increased use of social media has made Hallyu available everywhere, mainly for free and social media has become the platform where stars typically perform K-pop fan-oriented activities; many fans have at the same time begun to build relationship with like-minded people there. According to Jakpat survey (Fandia, 2016), fans follow their idols' personal social media accounts, update their own status about K-pop, share K-pop related information and create special accounts or blogs for their idols. Moreover, social media creates the opportunity for parasocial relationships to develop, meaning that fans may diminish social distance and feel they have more of a relationship with celebrities and their idols through Instagram live or VLive service (Novalika & Kartasamita, 2021). Although these are simulated interactions, fans nonetheless feel that they have become friends with their idols and the interaction will continue outside of viewing/listening time. This means that such parasocial relationships increase the motivation to engage in fandom activities and enhance media effects (Kang et al., 2021; Cohen, 2009).

Spending plenty of time in cyberspace with parasocial friends and feeling proximity to them may induce a certain level of fanaticism (Nuralin, 2020 as cited in Ananda & Windah, 2021) and enthusiasm for stars has led to the development of a fandom culture relating to Korean pop idols (Kim et al., 2018). Kwak et al. (2021) developed an Online Activity Index of K-pop fans which includes levels of involvement such as joining the fandom, paying per view VLive, watching on-demand videos and YouTube and writing posts in fandoms. According to their findings, joining the fandom is the second strongest factor influencing the online activities of fans, which was suggested for marketers to stimulate. Jenol and Pazil (2020) revealed that the existence of a parasocial relationship between the idol and his/her fan can serve as a platform for escapism and can result in a better quality of life for fandom members. Saeji (2021) also found that fandom encourages fans to be more active and construct their own fan identity. Kpop fans may take fanaticism to the extreme, exhibiting assertive and devoted behaviour on behalf of their idols (Ariani, 2020) and can develop a level of adoration for the stars that many authors have even interpreted as religious (Chang & Park, 2019; Lee 2020; Young, 2020) and may be applied within the evangelism marketing principle.

Negative Effects of Cyberspace

In general, group membership can help people socialise and form their identity while giving the feeling of sense of belonging, which is a basic need. However, there are some costs associated with being a group member. The most visible aspect is peer pressure of being in harmony with the group and demonstrate commitment and loyalty, as members often face with being urged by other members to engage in activities they normally do not do (Santor et al., 2000). For K-pop fans, fandom membership may help to build their identity, resolving identity ambiguity in a supportive and sheltering surroundings (Seregina & Schouten, 2016). Social pressure might therefore be significant.

For those who want to be committed members of the fandom, frequent checking of social media is an expectation from the group on the one hand, and from themselves on the other hand as well. Not spending enough time on social networking can cause a feeling of Fear Of Missing Out (FOMO), in other words, the fear of omitting a piece of information about her idol or being left out of an idol's activity (Novalika & Kartasasmita, 2022). A high level of interactivity in digital space and live streams of idols may also raise the level of FOMO (Ananda & Windah, 2021) since fans do not want to miss a chance to strengthen their parasocial relationship with their superstars. As K-pop is available worldwide and has worldwide fan groups, new information is available 24/7, so fans who want to be well informed can feel like they cannot miss a minute on social media.

Purchase Behaviour of K-Pop Fans

Researchers have found there to be a strong link between consumers' behaviour and popular culture (Kjeldgaard & Askegaard, 2006), so it can clearly be seen why research on the spread of culture from a marketing aspect has become a popular and important topic (Kim et al., 2015; Otmazgin, 2008). Jang and Song (2017) found that a fandom is considered to be a target market, and active fans' participation extends beyond attending a concert. The K-pop industry should therefore consider them to be both collaborators and partners.

Fans are willing to pay for products related to their pop-idols due to internal and external factors: pleasure due to self-actualisation can be the internal factor and the main members of fandom play the role of external factors (Ding & Zhuang, 2021). Being a fan of a K-pop or K-drama idol and building a parasocial relationship with them may culminate in buying goods related to the preferred star; no matter whether it is a merchandise product or a brand advertised or used by the idol. Nurani and Sobari (2022) found in their recent research that celebrity worship has a positive correlation with brand attitude, advertisement attitude and repurchase intention among K-pop fans in Indonesia and these findings were supported by previous studies (Bergkvist & Zhou, 2021; Cheah et al., 2019; Khan et al., 2021). Kim et al. (2018) also found a positive significant relationship between repurchase intention and the intensity of fandom activities in Korea. Suvittawat (2022) detected characteristics of purchasing of products endorsed by K-pop artists among Thai fans. In the latter study it was also mentioned that fans not only buy these products but also recommend purchases to each other, something which – combined with peer pressure in fandoms – may result high level of purchase intention toward K-pop and K-drama related goods. But the spread of the Korean wave may also lead to other purchases. Since the fame of Korean pop-culture seems to be a tangible phenomenon (Kim & Park, 2020), it influences the country-origin image of South Korea – resulting in purchases of products made in Korea (KOTRA/KOFICE, 2015; Shim, 2006; in Kim & Park, (2020)). Choi (2012, in Kim & Park, 2020) analysed the impact of the Korean wave in more than 60 countries; meanwhile, Lee et al. (2014, in Kim & Park, 2020) studied the connection between social media use and exports of Korean goods in more than 50 countries. In both cases, the research found there to be a positive correlation between involvement in K-pop and the export of Korean goods. This explanation can be based on a simple communication model: listening to K-pop and watching K-drama may draw attention to the country itself and may serve as a source of information about Korean products like clothing, food, etc. Becoming or being a fan results in interest in Korean musicians, and actors; and following idols on social media may induce the desire to purchase products and brands related to the object of one's adoration.

Taking the above into consideration, the study of K-pop and related consumer behaviour is clearly essential for the marketing profession in K-pop industry.

Conceptual model and Hypotheses Development

The research questions for the current study were drawn from the literature reviewed above and the authors' own experience:

RQ1: What is the relationship between FOMO, Peer Pressure and Fandom involvement?

RQ2: In what ways do the dimensions of fandom involvement influence media activity on the Korean Wave?

RQ3: Do fandom and media activity influence purchase intentions?

RQ4: Which of the identified influencing factors has the greatest impact on the purchase intentions of products and services in relation to the Korean Wave?

The aim of this empirical study is to identify the factors that significantly influence the purchasing behaviour of Hungarian fans, which are based on theoretical foundations and which have also been defined in the research question. Smart PLS3 and SPSS Statistics 22 software were used for the analysis. The operationalisation of the model constructs is summarised in Table 1.

Table 1. Operationalisation of latent variables

Construction	Definition
Fear of Missing Out (FOMO)	Persons' desire to stay constantly connected with what happen around us, feeling of fear that others will have experiences that he is missing out on. A 10-item, 5-point Likert scale were developed by Przybylski et al. (2013) to measure FOMO containing factors of the followings: sense of self-esteem, social interaction, and social anxiety (Abel et al., 2016).
Fandom Involvement Scale (FD)	Fandom is a subculture of a social group, and K-pop fandom is a social phenomenon and cultural practice meaning group of individual fans who actively supports and promotes their idols (Oplustilova et al., 2000; Kim et al., 2018). Oplustilova et al., (2022) defined K-pop fandom involvement scale with 22-item. This construction measures attractiveness of fandom; centrality role and self-expression; level of attachment; level of commitment; identity salience; and loyalty.
Peer Pressure (PP)	A person's impressions being pressured or urged by community members to do things normally he does not do. Clasen and Brown (1985) define it as price of group membership, because members have to make an effort to show their loyalty and commitment to the group (Newman & Newman, 2001). Santor et al. (2000) developed an 11-item, 5-point Likert scale to measure the extent to which one feels that one is being pushed into doing certain things by others.
Purchase Intention (PI)	Prediction of actual purchase behaviour of idol goods, idol-collaborated products (Kim et al., 2018; Nurani & Sobari, 2022), services related to Korean culture such as cuisine, language, skin care techniques (Suvittawat, 2022; Nahm and Jung, 2016).
Media Activity (MA)	Fandom activities in different channels of the digital space that delight fans, such as searching for content, posting and re-posting idol- or fandom-related information, content creation, writing fan fiction, visiting official and un-official fan sites (Novalika & Kartasasmita, 2022; Ananda & Windah, 2021; Kwak et al., 2021).

Source: Authors' own research.

It has been hypothesised that these factors are also interrelated and influence the activity associated with the Korean wave (Figure 1). Media activity (Novalika & Kartasasmita, 2022) measure the quality (e.g., following, sharing, posting) and frequency of Korean Wave-related activities on social media, while purchase intention (Nurani & Sobari, 2022) examine the purchase frequency of products and services related to specific outputs of the Korean Wave (K-pop and K-drama items, movies, brands, language learning, cosmetics, fashion products, and Korean cuisine). The following hypotheses have been formulated, based on the relationship framework of the model:

H₁: FOMO components and peer pressure directly influence the dimensions associated with Fandom.

H_{2a}: Fandom components directly influence media activity and purchase intention.

H_{2b}: Media activity directly affects purchase intention less than the total effect of Fandom involvement.

H₃: Each of the basic structural model constructs (FOMO, FANcategory, Peer Pressure) has an indirect significant effect on purchase intention through Fandom components.

The relationships were tested using the statistical analyses described above, the results of which are presented below.

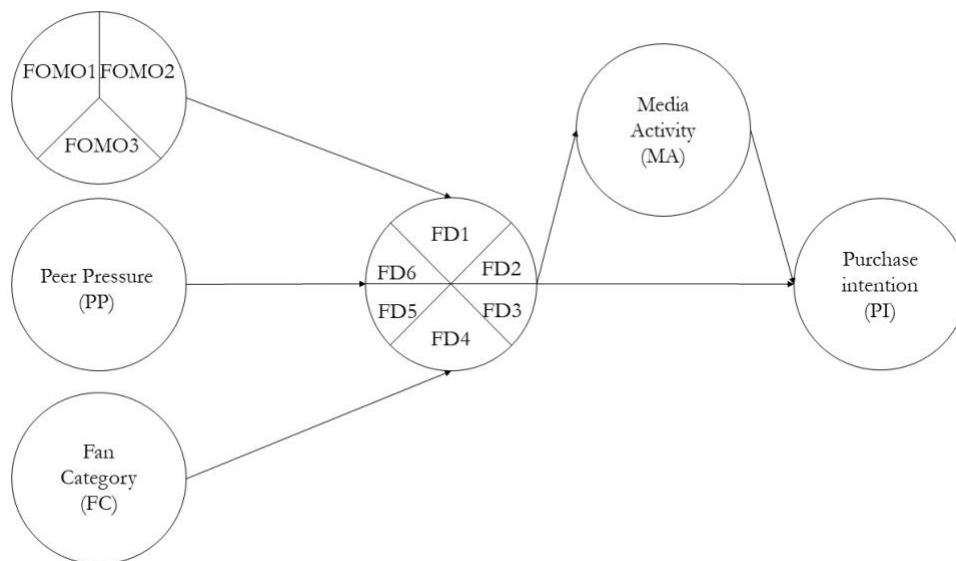


Figure 1. Theoretical model for research

Source: Authors' own research.

Data source and methodology

Data collection

The research was based on primary data, which was collected through an online questionnaire in December 2022 via the Lime survey platform. Lime survey was chosen because it is a simple, quick, and anonymous online survey tool; it allows users to quickly create intuitive, powerful online forms; and authors had access to the full version of it, which

gives opportunity of fine-tuning the survey-settings. Completion was anonymous, with an average response time of around 8-10 minutes. The study population consisted principally of fans of the Hungarian K-pop and Korean wave. The respondents were reached through groups on online social networking sites (Kpop Concerts Hungary, MentalKipi) that focus specifically on K-pop and K-dramas. The first question in the survey filtered how much of a K-pop/K-drama fan the respondent considered themselves to be, so those who did not like either were excluded from the analysis. Further questions in the survey were divided into six groups: 1. purchasing habits of products and services related to Korean culture, 2. media activity on general and specifically K-pop-related online platforms, 3. fear of missing out, 4. peer pressure, 5. fandom involvement, 5. demographic characteristics. Questions were formulated based on the literature and scales explained in Table 1. In the case of the Hungarian-language questionnaire, appropriate linguistic adaptations were made (Al Barwani et al., 2023). In the next step, the experts tested the questionnaire, and based on their suggestions (formatting, linguistic anomalies), the final version was developed.

Sample Characteristics

A total of 831 people filled in the survey, resulting in a sample of 495 assessable respondents ($n = 495$). In the analysis, only respondents who provided a complete response had a standard deviation of at least 1 (each construct was measured on a Likert-scale), and a completion time of more than 5 minutes were included in the sample. The demographic characteristics of the sample (Table 2) show that the respondents were typically female (97%), with more than 60% of respondents having a secondary school education and almost a quarter of the sample having a university degree. Age was measured in the survey as a continuous variable, which was transformed into five nearly equal interval categories. The average age was 30 years while the mode was 19 years and the standard deviation was 13 years. The demographic profile of the sample is representative of the results of previous research on this topic, both in terms of gender and age groups (Gajzágó, 2021; Nahm & Jung, 2016).

Table 2. Characteristics of the sample

Demographic variables		Number of respondents	Valid Percent
Gender	Female	482	97.37%
	Male	13	2.63%
Educational level	Elementary school	62	13%
	High school	117	24%
	Technical school or technical college	198	40%
	BA/BSc degree	82	17%
	MA/MSc degree	36	7%
Age	<=19	117	24%
	20-23	96	19%
	24-29	93	19%
	30-43	99	20%
	44+	99	20%

Source: Authors' own research.

Quantitative analysis

The PLS-SEM method is widely used in different areas of Korean wave, such as consumer behaviour, success factors and e-commerce (Agung et al., 2023; Kim et al., 2022; Wang & Kim, 2022), but also in the narrow research topic, several authors have used this statistical method (Anastasia, 2022; Rinjani & Sulhaini, 2020). The growing popularity of the method is partly attributable to the fact that it allows the estimation of complex models on a small sample without imposing distributional constraints on the data. Furthermore, the method provides a causal-predictive approach that emphasizes prediction in the estimation of statistical models (Sarstedt et al., 2018). PLS-SEM estimates the parameters based on the total variance and transforms the partial model structures by combining principal component analysis with least squares regressions (Mateos-Aparicio, 2011). The model consists of two components. The first element is the external (measurement) model, which measures relationships between indicators and latent variables. The second component is the internal (structural) model, which examines the effect of latent variables using regression paths. Based on the direction of the relationship between manifest variables and latent variables, one can define a reflective or formative measurement model. In the first case, the relationship is directed from the latent variable to the indicator, it can be considered as the cause of the latent variable, while in the case of the formative measurement model, the manifest variables are the causes behind the latent variables (van Bork et al., 2019)

PLS-SEM method was found to be adequate in the present research because the structural model used in this study is complex, with many constructs and model relationships, including several formatively measured constructs that CB-SEM (covariance based structural equation modelling) is less able to handle. The use of PLS overestimation is justified for our model based on organisational culture of learning, as the normality condition is not met for some items constituting the constructs (Kolmogorov-Smirnov test for all variables $p < 0.05$). Figure 2 illustrates the analysis flow. The bold lines indicate the analysis steps that appear in the study.

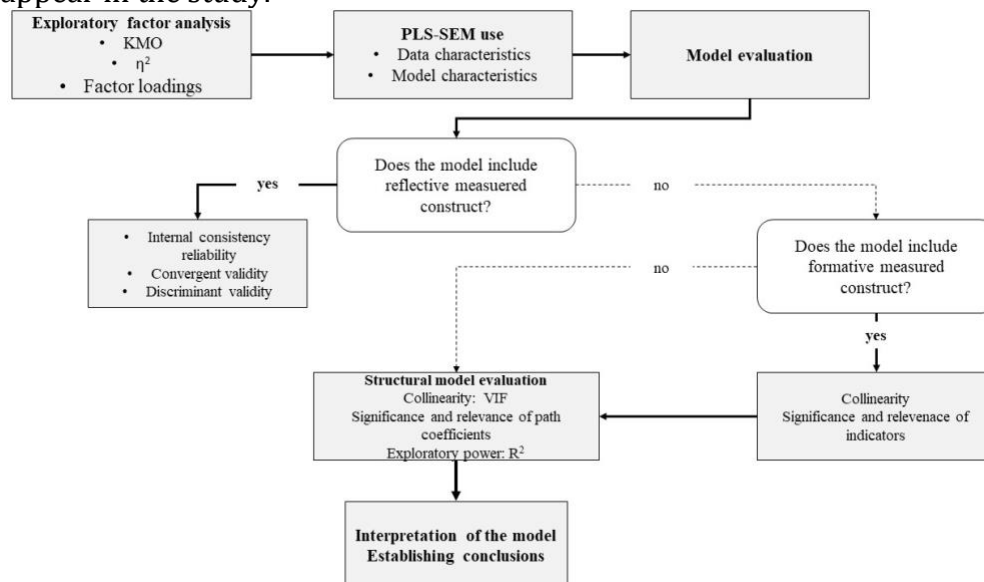


Figure 2. A systematic procedure for reporting PLS-SEM results

Source: Authors' own research.

Results

Reflective constructs of the measurement model can be tested for validity and reliability. The reliability of the constructs can be determined using the Cronbach's alpha (α) index, which is assumed to be above 0.7 (Hayduk & Littvay, 2012). Convergent validity and reliability are measured by the average variance extracted (AVE) and the composite reliability (CR). For internal consistency, a CR greater than 0.7 is acceptable in SEM-PLS. In addition, the AVE values indicate robust convergent validity above 0.5. The results below represent the components of the final model, with the other hypothesised elements being excluded due to condition failure or lack of connectivity. FOMOs self esteem: $\alpha = 0.686$, CR = 0.762, AVE = 0.616; FOMOs social interaction: $\alpha = 0.744$, CR = 0.838, AVE = 0.565; Peer Pressure: $\alpha = 0.740$, CR = 0.817, AVE = 0.582; FD attraction: $\alpha = 0.881$, CR = 0.918, AVE = 0.738; FD centrality & self-expression: $\alpha = 0.786$, CR = 0.862, AVE = 0.614; FD loyalty: $\alpha = 0.721$, CR = 0.826, AVE = 0.543.

The reliability of the indicators can be checked by examining the factor loadings, with a minimum value of 0.6 (Hair et al. 2019), which has already been quantified in the previous chapter. The validity of discriminant can be defined as a set of factors that distinguish one variable from another variable, i.e. the construct is different from other constructs. HTMT correlation ratio helps to establish this value below the threshold of 0.85, whose values in the empirical model range from [0.141-0.835]. It shows how conceptually different the constructs in the path model differ from each other (Henseler et al., 2015). The fit of the formative measurement models can be assessed by collinearity between indicators (VIF indicator < 5; [1.110-1.879]), significance and indicator weights, which were met by the elements of the constructs (MA and PI). Several indicators can be used to assess the appropriateness of the model fit (NFI, SRMR). One of the first fit measures proposed in the SEM literature is the normed fit index (NFI) by Bentler and Bonett (1980). It computes the Chi² value of the proposed model and compares it against a meaningful benchmark. The closer the NFI to 1, the better the fit. The NFI of the model fitted in this study is 0.886. The SRMR is defined as the difference between the observed correlation and the model implied correlation matrix. Henseler et al. (2014) introduce the SRMR as a goodness of fit measure for PLS-SEM that can be used to avoid model misspecification. According to the literature, a value of RSMR lower than 0.08 indicates a good model fit (Hu & Bentler, 1998). For the model we have fitted, this value is 0.057.

Table 3. Testing of hypotheses

Hypoteses	Path	Direct effect	Indirect effect	T-statistics	p value
H1	FOMOs self esteem → FD centrality	0.274	-	6.829	0.000
	FOMOs self esteem → FD loyalty	0.164	-	3.895	0.000
	FOMOs self esteem → FD attraction	0.168	-	3.784	0.000
	FOMOs social inter. → FD loyalty	0.152	-	3.297	0.001
	FOMO social inter. → FD attraction	0.103	-	2.145	0.032
	PP → FD centrality	0.120	-	3.234	0.001
	PP → FD loyalty	0.056	-	1.458	0.045
	PP → FD attraction	0.098	-	2.208	0.028

	FDcentrality → MA	0.285	-	5.701	0.000
	FDloyalty → MA	0.316	-	7.030	0.000
H2a	FDloyalty → PI	0.156	-	3.246	0.001
	FDattraction → MA	0.236	-	4.352	0.000
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	MA → PI	0.497	-	10.070	0.000
H2b	FDloyalty → PI	0.156	0.157	5.847	0.000
	FD centrality → PI	-	0.141	5.031	0.000
	FDattraction → PI	-	0.117	3.763	0.000
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	PP → PI	-	0.046	2.309	0.021
H3	FANcategory → PI	-	0.224	8.826	0.000
	FOMOself esteem → PI	-	0.110	4.857	0.000
	FOMO social inter. → PI	-	0.060	2.891	0.004

Source: Authors' own research.

To review the results of the structural model, it is necessary to test the significance of the established path coefficients (hypotheses), which can be examined with t-tests using the bootstrap distribution. The p-values in Table 3 indicate which explanatory variables have a significant effect at the five percent significance level, while the β -values indicate the significance of the direct or indirect relationship, and the final model relationships are illustrated by Figure 3.

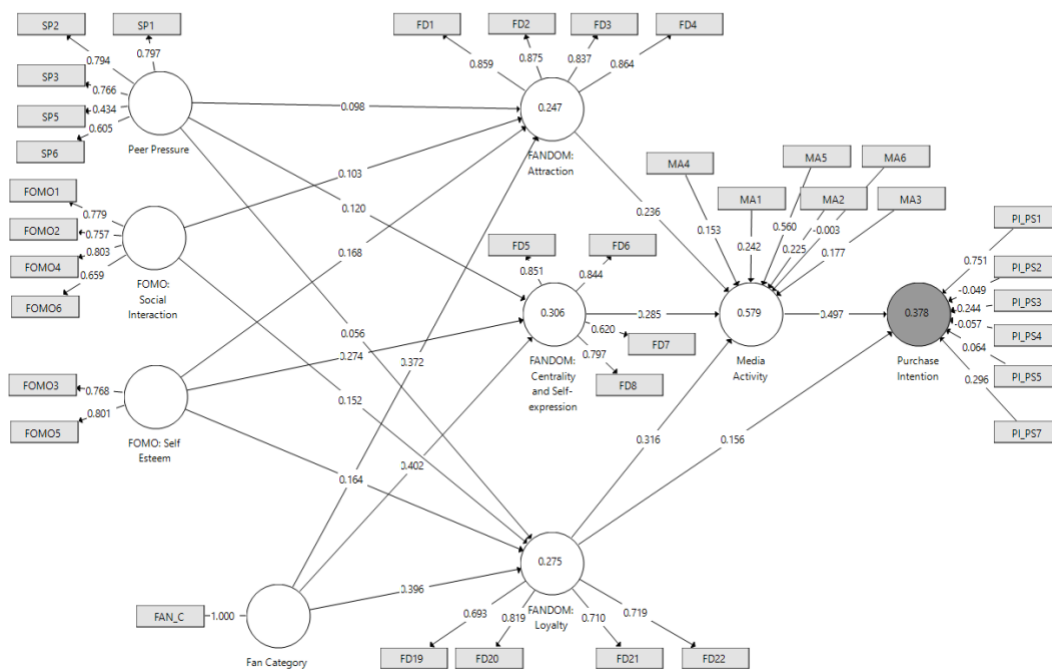


Figure 3. Summary of the model results

Source: Authors' own research.

Discussion

The first research question was formulated about the relationships between the main components of the model, namely FOMO, Peer Pressure and Fandom Involvement. The first hypothesis assumed, FOMO components and peer pressure directly influence the Fandom Involvement, but the effect does not appear to the same extent for individual elements of fandom; therefore dimensions of Fandom Involvement were examined separately. The relationship, which was supported by the literature (Ananda & Windah, 2021) is demonstrated by the empirical model: FOMO factors have a direct effect on fandom involvement. The results show that self-esteem has a significant effect on the centrality and self-expression ($\beta=0.274$), which is the most complex dimension as it expresses the individual's lifestyle, loyalty ($\beta=0.164$) which is operationalised in the context of the study as the intention to revisit Korea soon and to actively participate in fan activities, and attractiveness ($\beta=0.168$) as a combination of enjoyment and satisfaction. In contrast, a slightly weaker influence is found for the social interaction component, which expresses an individual's feelings of interaction with others, shyness problems for both fandom loyalty ($\beta=0.153$) and attraction ($\beta=0.103$). Despite the literature suggesting that social pressure may be a negative effect of online communities (Santor et al., 2000; Seregina & Schouten, 2016), peer pressure is only marginally related to all remaining fandom dimensions ($\beta=0.056-0.120$), which may be due to delinquent and antisocial behaviour in the scale items. Based on the results described, the H1 hypothesis is partially plausible, as not all FOMO and Fandom components are retained compared to the original model; moreover, the link between peer pressure and Fandom involvement has not been sufficiently explored.

From the second and third research questions, two combined hypotheses were generated, examining the impact of fandom involvement on fans' media activity and purchase intentions. The strongest relationship has with loyalty ($\beta=0.316$), but there is also a moderately weak relationship with attractiveness ($\beta=0.236$). In contrast, of the fandom involvement components, only loyalty shows a significant but weak relationship with purchase intention ($\beta=0.156$), so first part of the second hypothesis (2a) is only partially confirmed. The second part of the second hypothesis (2b) approaches it from the practical aspect that attitudes towards fandom are more deeply rooted in the individual, and thus influence purchase intentions to a greater extent than the everyday media consumption by the fan. To decide the hypothesis, it is necessary to add the indirect effects to the direct effect of fandom loyalty ($\beta=0.156$), which implies that the elements of fandom involvement also affect purchase intention through media activity ($\beta_{FD}:\text{indirect effect}=0.117 + 0.141 + 0.157$), the sum of which ($\beta_{FD}:\text{total effect}=0.571$) indeed exceeds the effect of media activity, so this part of the second hypothesis is acceptable.

The third hypothesis examines all elements of the model in a more complex way than the third research question, therefore it aims to investigate the coherence of the model. In addition to assessing the direct effects between the elements, it also identifies the indirect relationships of the explained latent variable (PI) of the model. All tested items have a significant indirect effect, whereby fan's self-defined fan quality had the largest indirect effect ($\beta=0.224$) through fandom involvement factors and media activity, but the other two groups of variables also had a significant effect, which proves the validity of the third hypothesis. The explanatory power of the overall model is 37.8% for purchase intention and over 55% for

media activity, which is partly attributable to the fact that the elements of the theoretical model set up mainly examined attitudes in online communities.

Contribution of this research to the literature of Hallyu related studies is the development of a model that measures relationships among fandom involvement, peer pressure, media activity, FOMO and purchase intention, and it was done on a seldom studied fanbase, among Hungarian fans. Results shows that the examined elements have the greatest impact on the 20-23 year-old age group, similar to the age group of 30-43 year-old ones, however, due to higher level of income and already established living circumstances the second group can answer for marketing activities on a higher level and this is supported by Kim et al. (2018). It was also determined that level of fandom involvement has a positive effect on purchase intention. This is because fans are exposed to K-pop products in almost every digital space, and fandom expects them to buy. This is reinforced by FOMO and peer pressure, as the fan may feel that purchase is also necessary to show commitment and loyalty (Kim et al., 2018; Nurani & Sobari, 2022). Findings about the positive influence of fandom involvement and media activity is supported by Suvittawat (2022) because through media posts and comments fans not only inform each other but also recommend idol-related products, thereby increasing peer pressure and fear of missing out.

Conclusion and Limitation

The conclusion that can be obtained from the results and the discussion of the study is, that fans' self-definition about their fan-status (what is the level of their adoration) has the strongest indirect effect on purchase intention through fandom involvement and media activity. Perception about how a fan describes him/herself supports how he/she will behave as member of the fan community (fandom), furthermore, what will be the form and level of media use. The model shows that self-esteem, as an element of Fear Of Missing Out effects self-expression within fandom involvement; this supports the previous statement: the most important element is what a fan thinks about him/herself. Results also suggest that fandom involvement has a mediating effect between FOMO and fans' media activity; and loyalty, as an element of fandom involvement has higher impact on purchase intention of fans than media activity. Last, but not least, it can be concluded – based on the third hypothesis which examined the coherence of the model – that the model, which was built to measure relationships among digital media-related psychological factors and the purchasing behaviour of K-pop fans, has a relevant explanatory factor.

These last findings are the main contribution of the research to the theoretical investigation of K-pop fans. They pull together the previous studies' findings and have uncovered complex relationships not only among the main psychological factors such as fear of missing out, fandom involvement and peer-pressure, but also among their sub-categories.

These results have implications for brands related to K-pop products and K-pop groups as well, namely that building a strong fandom community, increasing the fear of missing out by continuous use of social media and sharing contents with fans will result higher level of purchase intention among Hungarian fans. The findings also underline the importance of bolstering fan attitudes; this will increase their willingness to buy, which will have a positive impact on the purchases of other members of the fan base. Market participants may find that this study benefits them by giving additional value and insights in developing their online communication strategy. The study will enhance the performance

and competences of organisations (K-pop agencies). K-pop marketers can carry out marketing activities that can effectively distribute the marketing resources and obtain optimal responses from fans. This approach is recommended to strengthen the level of involvement in fandom community; it will also support individual fan's self-evaluation. Since loyalty was the strongest influencing element within fandom involvement, exhibiting the characteristics of loyal behaviour to fan communities in online communication, can help marketers attain the highest level of customer equity - the total combined customer lifetime values of all of the company's customers.

The limitation of this research is that data collection was implemented through the online self-reporting of respondents, so researchers did not control participants filling the questionnaire in any way. There is no detailed data about Hungarian K-pop fans, so the representativeness of the sample is in no way guaranteed. This study describes the current situation in Hungary. Central and Eastern-European countries' fans might be expected to exhibit similar behaviour due to the similarity of their countries' historical development and similar economic status. However, cultural differences across countries might serve to limit the transferability of the result obtained here.

The study mainly explored a sample of those who are K-pop fans. Further research may focus on other aspects of Hallyu (K-drama idols, Korean language, and travelling habits) to reveal connections in these fields among existing variables. Another possible research direction may be to explore differences among fans of selected K-pop groups, to see whether the factors examined in this study influence different fandoms on the same way. The framework of this research may also be completed with other variables, such as duration of fandom membership, and wellbeing of fans. It would be also useful to measure the reverse effect between media activity and fandom involvement, to see whether higher media activity may result in a deeper or stronger level of membership.

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