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Money or Melancholia? Dropout and Retention Rates in the K-pop Industry

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Abstract

The K-pop music industry is signified by a hyper-competitive training system. The aim was to examine dropout and retention rates among a representative sample of K-pop artists and groups. The dropout rates of 49 K-pop groups and 298 group members ($N = 298$; $F = 130$; $M = 168$), who have been active any time between 2003–2019, were 5.70%. As gender, age and other generic control factors could not explain more than a fraction of retention rates, the author interprets this as partial evidence for melancholia among some dropouts.

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Introduction

South Korea (hereafter Korea) is associated with a rapid industrialization process that took place in the aftermath of World War II and the permanent partition after the Korea war (1950–1953). Over the course of five centuries, it has cumulatively grown into an economic powerhouse and liberal democracy, although with some authoritarian elements (Chang, 2010; Lie, 2014). Currently it is the world's eleventh largest economy in terms of aggregated GDP and twentieth regarding GDP per capita (IMF, 2019). The late-1990s onward, it is also related to the so-called Korean wave (hallyu), pop music (K-pop) in particular (Shim, 2006). K-pop is essentially westernized global pop music shaped and branded in Korea, characterized by high-value content, synchronised dance formations, and attractive performers in groups who in some cases have reached significant global success. An underlying factor of this pop cultural accomplishment is the diligence that are manifested among its artists (Jang & Kim, 2013; Boman, 2019). The genre's largest success, the boy band BTS (Boman, 2019; IFPI, 2019), accounts for 0.3% of the country's total GDP (Buchholz, 2019; Kelley, 2019). However, K-pop in its entirety contributes with a larger share of the economy, although smaller compared to chaebols (conglomerates) like Samsung and Hyundai (Sinha, 2019).

Earlier research has emphasized the role of globalization and localization for the production and diffusion of K-pop (Lie, 2012; Oh & Park, 2013; Lie, 2014) and fan engagement (e.g., Oh & Park, 2013; Yoon, 2017). Moreover, the "slave contracts" within this orbit have been highlighted with a critical lens (e.g., Ho, 2012; Jang & Kim, 2013). However, research on for example K-pop dropouts is lacking.

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In that regard it might be crucial to account for various costs and benefits in the Korean entertainment industry as it demonstrates the returns on investment (ROI) of to become a K-pop artist, rather than speculating about the exact motives of individuals. As such, it may provide a theoretical basis and relevant interpretation of socioeconomic patterns and general motives in the age of social media. At the individual level, Instagram following is of particular importance for individual success rates within a neoliberal capitalist framework, whereas YouTube views and perhaps Twitter following rates on the other hand are crucial indicators of a music group's level of achievement (Boman, 2019).

The current article aims to address the following research questions of which the second is rather exploratory. Therefore, the current study may only contribute with partial knowledge and answers to this:

RQ1: How large is the share and numbers of dropouts among post-debut K-pop artists?

RQ2: What do the dropout rates, in the education system and post-debut, tell us about the sociocultural conditions for the youth in Korea?

Background

The dynamics of the K-pop business and new social media

K-pop content is like pop music in general diffused through digitized global media tools such as YouTube, iTunes, Facebook, and Twitter for the world's consumers but Koreans in particular. However, the significance of social media seems to be even more important for the dissemination of this genre's content compared to for example J-pop and other East Asian local varieties of pop music (Oh, 2013). Additionally, Spotify and Instagram matter for the dissemination of music, news, visibility of groups and group members, as well fans and their communities. The boy group BTS won the Best Social Media Artist Award at the MTV Music Awards (2018) and has an enormous global fanbase, which is manifested by their Twitter account with approximately 35 million followers (BTS Twitter). The girl group BLACKPINK has a dominating presence on Instagram with approximately 39 million followers on their official account (BLACKPINK Instagram). Hence, the success of K-pop is partly associated with a strong social media presence and dominance. While these two groups have been the most successful in K-pop (Boman, 2019), it is more suitable to examine K-pop groups more generally regarding phenomena such as retention and dropout rates. Only by looking at a representative selection of groups and group members it is possible to draw general conclusions about such matters.

As Ho (2012) and Jang and Kim (2013) assert, many young Koreans want their children to become K-pop stars (or "idols" as they are commonly referred to in Korea). While it is also attractive to work for a large corporation or the government (Oh, 2010; Hultberg et al., 2017), K-pop manifests one, if not the highest, measure of socioeconomic success in contemporary Korea. Therefore, the individual striving is linked to the sociocultural conditions in the country (Jang & Kim, 2013). Because competition starts early in life, a significant share of young Koreans with artistic ambitions will start dancing and singing practice between 10–15 years of age, often in K-

pop cram schools, which will increase their chances of success in the selection process. Further, the education aims to inculcate certain values which will increase the chances in the selection process and are looked upon as positive within the broader society (Ho, 2012).

This shows that Korean parents and to some degree adolescents act as rational economic actors (Hultberg et al., 2017, see also Levin & Milgrom, 2004; Burns & Roszkowska, 2016; Grüne-Yanoff, 2009) but are also aware of the positive impact of K-pop education for character formation (Ho, 2012). This is presumably also the case with debuting artists during adolescence or early adulthood who have more agency compared to children.

An important aspect of the supply side of K-pop is the “idol” culture that signifies the talent system (Oh & Park, 2012; Lie, 2012). The idol system in Korea is influenced by similar structures in the US and Japan but earlier research stresses that K-pop idols are typically more attractive than their Japanese counterparts, and after training they have more well-rounded skills such as multi-lingual abilities and attractive personalities (Lie, 2014; Turnbull, 2017; Boman, 2019). Thus, even though K-pop companies look for beauty potential, and at least moderate singing and dancing skills among real or potential trainees, they are also aware of the impact of an appropriate personality profile. This seems to be the case even if these K-pop companies do not evaluate the trainees with any standardized personality instrument (Boman, 2019).

Earlier research has focused on melancholia among hallyu (i.e., Korean wave) fans, such as Japanese women (e.g., see Oh, 2009; Oh, 2011). Boman (2020) has identified and examined some K-pop whose content is associated with a melancholic vibe. However, melancholia among K-pop artists, as indicated by for example dropouts and suicide rates, is an under researched area.

Theoretical framework

K-pop artists and melancholia

It may appear likely that personality skills like emotional stability and conscientiousness are pertinent for the retention or dropout of K-pop artists (Boman, 2019). For instance, it is sometimes understood that the K-pop industry – especially its long-lasting education – in Korea is somewhat inhumane (Williamson, 2011; Asong, 2018), why dropout rates due to heavy workload, depression or anxiety are expected to be substantial, at least prior to debut, when the largest shares of future artist prospects are excluded. Estimates indicate that only 20–30 individuals out of 1000 trainees will make it past debut (Lie, 2012). Post-debut it might, on the other hand, be the case that the benefits (e.g., income, fame, prestige) relative to costs (e.g., debt management, time, effort, lack of earnings from other possible occupations) are so high that hyper-conscientious and emotionally stable individuals remain in the music industry despite the external pressure which stems from their extensive training and exhausting artist contracts (Boman, 2019). However, it is difficult to assess the personality traits of K-pop artists with instruments such as the Big Five (e.g., see John & Srivastava, 1999; McCrae & Costa, 2008; Heckman & Kautz, 2014) why only the dropout and retention rates were included in the present study.

Melancholia, as an interpretive, mostly psychoanalytical phenomenon, is perhaps difficult to discern and assess within the frames of quantitative-leaning research but nevertheless several instances of dropouts, whether associated with suicides or less severe emotional instability, might be related to very demanding conditions and obligations. Similar to a housewife who is confined to a home (Oh, 2011), a K-pop artist is curbed by the stressful situation as an artist in the music and entertainment industry. Moreover, K-pop artists from for instance China may experience additional difficulties related to a lower ethnic and legislative status compared to Korean citizens. Thus, one may expect some if not all dropouts to be linked with some form of emotional instability (i.e., melancholia, or han, see Oh, 2011, Boman, 2020) which stems from such pressure.

Instagram following as a cost-benefit indicator

As earlier research indicates, Instagram has a huge impact within the frames of the global information matrix, and the number of followers and likes may be understood as an indicator of fame (De Weirman, Cauberghe, and Hudders, 2017). While real music celebrities, unlike self-advertising micro-celebrities, do not need Instagram or any other social media platform to disseminate anything other than their music content, it is yet widely used among the world's major pop artists. For instance, the American singer Ariana Grande has approximately 200 million followers on Instagram, only beaten by the soccer player Cristiano Ronaldo in that respect. All K-pop groups have an official Instagram account while not all group members have an official individual account. Instagram following might be regarded as a proxy for fame and a benefit of being a K-pop artist.

Method

Dropout and retention rates among post-debut K-pop artists

Specific inclusion criteria were applied to the selection of appropriate K-pop groups and artists:

1. Only groups who have been active any time between 2003–2019 and have existed for more than three consecutive years after their debut, have been analyzed. The groups are coded with either female (F) or male (M) in Table 1.
2. All groups are still active while disbanded entities have been left out. Yet these selected groups constitute a substantial share of the entire K-pop market 2003 onwards. Groups that have been disbanded for any reason (often financial, meaning that groups are not successful enough in the competitive music markets to continue to exist), and earlier group members who have decided to not renew their contracts but remained in the Korean entertainment industry, have been left out.
3. Furthermore, groups who have made massive member rotations have been excluded. This is to provide more reliable estimates of dropout and retention rates. The included members are described in Table 1. Those artists who remain in the industry are attributed with the value 1 and thus who have left with the value 0. The final sample consists of 49 K-pop groups and 298 group members (N = 298; F = 130; M = 168).

Multiple regression

In a later step, ordinary least squares (OLS) multiple regressions were run with artist retention or dropout (1 = retention, 0 = dropout) in the K-pop industry as the dependent variable and artist age, group age, Instagram following, and YouTube views as the independent variables, and gender as a dummy variable (0 = male, 1 = female). Although the outcome variable is dichotomous, the author followed suggestions by Hellevik (2007) to use OLS instead of logistic regression because OLS are more easily interpretable and does in fact seldom produce inflated P-values in neither large nor small samples sizes. Age was based on 2019 for consistency for all members except dropouts, whose ages are based on the age by the dropout year. This information was retrieved from kpopprofiles.com and wikipedia.org. The estimation model can be described as follows:

$$K\text{-pop}^i = X^{\text{Age}}_i\beta + X^{\text{Gender}}_i\beta + X^{\text{SocialMedia}}_g\beta + X^{\text{Longevity}}_i\beta + e^i$$

Here K-pop is artist retention in the K-pop industry among individual artist i , $X^{\text{Age}}_i\beta$, $X^{\text{Gender}}_i\beta$ and $X^{\text{SocialMedia}}_g\beta$ are the coefficients of these variables, $X^{\text{Longevity}}_i\beta$ is the coefficient of longevity of K-pop group g , and e^i is an error term.

It is assumed that this model, which consists of generic variables such as age and gender as well as some specific for K-pop (amount of YouTube views, group longevity, number of group members) can explain some of the variance in regard to retention rates, but that the factors or reasons for dropouts are better understood by looking at each individual case by media sources. It is also assumed that several dropouts are associated with melancholia (e.g., Oh, 2011).

In addition, a bivariate correlation between number of Instagram followers and YouTube views was calculated. YouTube views are based on the number of views (in millions) that the most popular music video has and as such it takes the same value among all group members because it signifies a collective achievement. As a general value, $r = .4\text{--}7$ is considered moderately correlated whereas $r = .7\text{--}1.0$ are considered highly correlated (Akoglu, 2018).

Multicollinearity diagnostics

To control for multicollinearity, Collinearity Diagnostics in SPSS Statistics 26 was carried through. The condition index generated by such an analysis implies that values above 30 indicate substantial multicollinearity. In addition, bivariate intercorrelations were carried through. According to Dohoo, Ducrot, Donald and Hurnik (1997), multicollinearity may be present when the intercorrelations are below $r = .90$. Therefore, in the current study, independent variables that had “high” intercorrelations ($r = .70\text{--}1.0$) according to the threshold values presented by Akoglu (2018), were excluded. No such relationships were found.

Factors related to dropouts

The author used information from K-pop outlets such as Korea Boo (English), All Kpop (English), Naver (Korean) and Soompi (English), as well Wikipedia (both the Korean and English versions) to discern main factors or reasons which seem to underlie the dropout of a group member. This information might convey something substantial about for example emotional stability or neuroticism and if such were linked to a dropout. Whereas these media sources are more or less

reliable it is still possible to obtain meaningful information if several sources provide uniform and consistent information about a basic topic (Greyson, 2018).

Results

Dropout rates

As Table 1 and 2 in Appendix show, the post-debut dropout rates among the 49 groups are rather low. Only 17 individuals out of 298 (5.70%) have dropped out of their groups, whether voluntarily or not. Jessica Jung of Girls' Generation had her contract eliminated in relative mutual consent with (Korea Boo, 2015; All Kpop, 2015). Choa of AOA left the group due to anxiety and sleeping problems (Korea Boo, 2017; All Kpop, 2017). Sulli of f(x) left the group to focus on her acting career, similar to Viki of Dal Shabet. Tragically, Sulli has later committed suicide (Korea Boo, 2019b). Hyeyeon of Gugudan had left due to health reasons (Soompi, 2018).

Jonghyun of Shinee committed suicide in 2017 (Korea Boo, 2017b). JinE of Oh My Girl left the group due to anorexia nervosa (Korea Boo, 2018), which is associated with neuroticism. However, one suicide among 298 individuals (0.0033%) is slightly higher than the share and numbers reported by Glenn et al. (2020), who stress that there are 6.64 suicides per 100 000 15-19-year-olds (0.00064%) in Korea. The difference would, however, likely decrease if more omitted groups were included in the statistics. This, in tandem with dropouts due to emotional stability, suggest that clinical depression seems to be a small but present problem in the K-pop industry.

The popular K-pop boy band EXO initially consisted of 12 members but two members of Chinese nationality (Luhan, Tao) and one of Canadian nationality and of Chinese descent (Kris) have left the group after having filed lawsuits against S.M. Entertainment (e.g, Lee, 2014). All members seem to have suffered from physical health problems (i.e., an obligation to perform despite for example leg injuries), lack of personal freedom, and sub-optimal income levels (Wikipedia).

Since these 49 groups consist of several levels of fame and achievement, the most viewed YouTube videos span less than a million (e.g., Big Brain, Year 7 Class 1) to more than 1.4 billion (BLACKPINK's "Ddu-du ddu-du"). The Pearson's correlation between YouTube views among groups and group members and Instagram following at the individual artist level is $r = .57$ ($N = 58$), which signifies a moderate relationship.

Regression output

In the first step, multiple regression (OLS) was conducted with all the sex independent variables. The OLS model (see Table 3) shows that artist age and group longevity, which are moderately intercorrelated variables, were statistically significant at the 0% level, meaning that older artists had higher retention rates and thus younger artist a higher dropout rate (e.g., see the three EXO members Luhan, Tao and Kris who dropped out in their early twenties), whereas groups that been around for many years had a higher chance of a dropout. However, groups with many members

(e.g., Seventeen) were overall not more likely to have experienced a dropout. Gender or YouTube views had no statically significant relationship with retention/dropout. The R^2 (i.e., statistical power of this model is fairly low (.260 or 26%) which implies a substantial amount of unexplained variance, perhaps related to individual income and/or psychological phenomena such as neuroticism (melancholia) or resentment (han) which is, in part, discussed above as factors that seem to have influenced some of the dropouts.

Table 3: Regression output*

	B	β	Standard error
Age*	0.35	.488	.005
Gender**	.028	.061	.023
YouTube***	-4.26	-.004	.000
Longevity*	-0.49	-.016	.005
No. Of members**	-.002	-.016	.005
Observation: 298			

* R^2 : .260. Significance levels: * $p < 0.01$ ** $p < 0.50$ *** $p < 0.90$

Cost-benefit analysis

There are several costs and benefits involved in the K-pop education system and business model. The costs differ between individuals and companies (Lie, 2014). As different companies offer different financial strategies to fund their groups, the costs of the education process have been omitted. Apart from heterogeneity within the K-pop industry, it is also the case that the average Korean invests time and money in generic education, why most K-pop trainees neither gain nor lose more or less than the average Korean. Instead, the costs are mainly time. The average pre-debut training lasts approximately five years (Lie, 2012; Oh & Park, 2012), and the average group age is seven–eight years (see Table 1).

Furthermore, although no specific data for the Korean demography exist in this respect, the average user on Instagram has about 150–300 followers (Work Macro, 2018). The average K-pop artist, on the other hand, has approximately 7.5 million followers. A large Instagram following is interpreted as a proxy for fame and social status at the individual level and might even enable a larger stream of present or future income. Both earnings and fame will likely dramatically decrease once an artist drops out of the K-pop industry, why there are multiple incentives to remain an artist.

Conclusion

The dropout rates of 49 K-pop groups and 298 group members, who have been active any time between 2003–2019 and have existed for more than three consecutive years after their debut, have been analyzed. The total dropout rate was approximately 5.7% (17/298).

According to revised rational choice theory, individuals make decisions as relatively rational actors and calculate costs and benefits (Levin & Milgrom, 2004), which is also the case with contemporary Koreans (Hultberg et al., 2017). Due to fierce competition, only 20–30/1000 trainees (0.2–0.3%), will make it past debut as K-pop artists (Lie, 2012). This makes the pursuit a questionable effort to invest time and money in for the bulk of individuals with relatively meager artistic and aesthetic potential (Boman, 2019). These earlier findings from the literature indicate that it might be a rational choice, although mediated by personality skills or other factors, to voluntarily drop out of K-pop cram schools and trainee system programs. However, since people are not purely rational agents they may, for instance, dream about to become a K-pop star despite the bad odds in earlier stages (Ho, 2012; Lie, 2012).

Part of the selection process within K-pop education is linked to external pressure which necessitates a specific personality skill profile. Because approximately 94.3% of the artists do not drop out after their debut it might imply that they may have “well-rounded” personality skills (e.g., conscientious and emotionally stable, or non-melancholic), the supposed external pressure imposed on individuals due to artistic contract obligations are somewhat exaggerated, and/or that the benefits outweigh the costs at that stage of the chain of decision-making. At this point, much remains unclear in that regard. Indeed, Korea faces a problem with emotional instability and somewhat troublesome suicide rates on a societal scale (Ahn & Baek, 2012; Park, 2015; Glenn et al., 2020), as well as a suboptimal education system (Oh, 2010; Hultberg et al., 2017). To some degree, however, the media preoccupation with so-called slave contracts within K-pop business does perhaps highlight that people are more concerned about the privileged, while earned, lives of local and global celebrities than the average Korean citizen. That contention does not lessen the dreadful consequences among some individuals within K-pop.

Moreover, one must also consider reference bias in this regard. For instance, Heckman and Kautz (2014, pp. 352–355; see also Yamashita, Bardo, and Liu, 2016) note that Koreans work next to the most hours within the OECD (after Japan) but still they regard themselves as among the laziest and most unconscientious relative to other populations. A Westerner may regard Korean education and K-pop artist commitments as extremely stressful whereas Koreans think that these conditions are normal since most people study or work that much, although in other sectors of the economy.

To the extent that it is possible, further research may benefit from interviews with K-pop dropouts and include more diversified content analyses of K-pop material (i.e., training videos, documentaries, reality shows, social media accounts) as it may reveal more information about personality and behavior that are associated with melancholia, Big Five or other pertinent personality factors. Moreover, individual, or group-related data may enhance the precision of cost-benefit analysis which in this case is quite limited.

This study has several limitations, among which lack of personality psychological estimates and data related to individual income for artists are perhaps the most crucial deficits. Furthermore, several variables were aggregated to the group level (number of members, group longevity, YouTube views) which provide less valid results. Hence, further research may aim for the collection of personality psychological data of K-pop artists and trainees, as well as reliable estimates of individual income. On the other hand, there might be individual and idiosyncratic factors at play which make it hard to explain and predict retention and dropout rates that conform a particular theoretical model or standardized questionnaire. Moreover, some factors or reasons for dropout are not revealed to the public. Be that as it may, qualitative research such as interviews could discern ambiguous or mixed factors in a more appropriate way than the quantitative counterparts. Thus, both quantitative and qualitative research appears critical if these topics would be further explored.

Björn Boman is a PhD candidate in education, whose research interests include educational achievement in South Korea and Sweden as well the music industries and contemporary culture in South Korea and Japan. His works have been included in journals such as Globalisation, Societies and Education, Scandinavian Journal of Educational Research, Culture & Psychology, East Asian Journal of Popular Culture, and Integrative Psychological and Behavioral Science.

Reference

- Ahn, S-Y. Baek, H-J. 2012. "Academic Achievement-oriented Society and its Relationship to the Psychological Well-being of Korean Adolescents." In *The Psychological Well-being of East Asian Youth*, edited by Yi, C-C. Dordrecht: Springer, pp. 265 –279.
- Akoglu, H. 2018. "User's Guide to Correlation Coefficients." *Turkish Journal of Emergency Medicine* 18(3): 91–93.
- All K-pop. 2017. "Choa Announces her Departure from K-pop." June 22. Available online: <https://han.gl/uQOW0/>.
- _____. 2018. "FNC Ent. Confirms N.Flying's Kwangjin has Decided to Leave the Band Voluntarily Following Controversies." December 19. Available online: <https://han.gl/6qQ7W/>.
- Asong, S. 2018. "Sickness, Slavery: 8 Very Real Things in a K-pop Idol's Life." *Philstar*, Jun. 28, 2018. Available online: <https://han.gl/FevbH/>.
- BLACKPINK Instagram. Available online: <https://www.instagram.com/blackpinkofficial/>.
- Boman, B. 2019. "Achievement in the South Korean." *International Journal of Music Business Research* 8(2): 6–26.
- _____. 2020. "Cultural Amnesia or Continuity? Expressions of Han in K-pop." *East Asian Journal of Popular Culture* 6(1): 111–123.

- BTS Twitter. Available online: https://twitter.com/bts_bighit/.
- Buchholz, K. 2019. "How Much Money Does BTS Make for South Korea?" *Statista*, Nov. 5, 2019. Available online: <https://han.gl/STFpP/>.
- Burns, T. and Roszkowska, E. 2016. "Rational Choice Theory: Toward a Psychological, Social, and Material Contextualization of Human Choice Behavior." *Theoretical Economics Letters* 6(2): 195–207.
- Chang, K-S. 2010. *South Korea under Compressed Modernity*. London: Routledge.
- De Weirman, M. Cauberghe, V. and Hudders, L. 2017. "Marketing through Instagram Influencers: The Impact of Followers and Product Divergence on Brand Attitude." *International Journal of Advertising* 36(5): 798–828.
- Dohoo, I.R. Ducrot, C. Donald, A. and Hurnik, D. 1997. "An Overview of Techniques for Dealing with Large Numbers of Independent Variables in Epidemiological Studies." *Preventive Veterinary Medicine* 29(3): 221–239.
- Glenn, C. Kleiman, E. Kellerman, J. Pollak, O. Cha, C. Esposito, E. Porter, A. Wyman, P. and Boatman, A. 2020. "Annual Research Review: A Meta-Analytic Review of World Suicide Rates in Adolescents." *The Journal of Child Psychology and Psychiatry* 61(3): 294–308.
- Greyson, D. 2018. "Information Triangulation: A Complex and Agentic Everyday Information Practice." *Journal of the Association for Information Science and Technology* 69(7): 869–878.
- Grüne-Yanoff, T. 2009. "Rational Choice Theory and Bounded Rationality." In *Religion, Economy & Cooperation*, edited by Pyysiäinen, I. Berlin: Walter de Gruyter, pp. 61–81.
- Heckman, J. and Kautz, T. 2014. "Fostering and Measuring Skills: Interventions that Improve Character and Cognition." In *The Myth of Achievement: The GED and the Role of Character in American Life*, edited by Heckman, J. Humphries, J. and Kautz, T. Chicago: The University of Chicago Press, pp. 343–430.
- Hellevik, O. 2007. "Linear versus Logistic Regression when the Dependent Variable is a Dichotomy." *Quantity & Quality* 43: 59–74.
- Ho, S-L. 2012. "Fuel for South Korea's 'Global Dreams Factory': The Desire of Parents whose Children Dream of Becoming K-pop Stars." *Korea Observer* 43(3): 471–502.
- Hultberg, P. Calonge, D. and Kim, S. 2017. "Education Policy in South Korea: A Contemporary Model of Human Capital Accumulation?" *Cogent Economics & Finance* 5: 1389804.
- IFPI. 2019. "Global Report." Available online: <https://www.ifpi.org/downloads/gmr2019.pdf/>.
- IMF. "Real GDP Growth." Available online: <https://han.gl/fW6d5/>.
- Instagram. Available online: <https://www.instagram.com/>.

- Jang, W. and Kim, Y. 2013. "Envisaging the Sociocultural Dynamics of K-pop: Time/Space Hybridity, the Red Queen's Race, and Cosmopolitan Striving." *Korea Journal* 53(4): 83–106.
- John, O. and Srivastava, S. 1999. "The Big Five Taxonomy: History, Measurement and Theoretical Perspectives." In *Handbook of Personality: Theory and Research*, edited by John, O. and Robins, R. New York: Guilford Press.
- John, S. 2018. "Sulli Reveals Shocking Reasons why She Left (f)x." *International Business Times*, Oct. 27, 2018. Available online: <https://han.gl/uU98x/>.
- Kelley, C. 2019. "K-pop is More Global than Ever, Helping South Korea's Music Market Grow into a 'Power Player'." *Forbes*, Apr. 3, 2019. Available online: <https://han.gl/PJiGh/>.
- Korea Boo. 2015. "Jessica Officially Leaves SM Entertainment." August 5. Available online: <https://han.gl/PAQ1x/>.
- _____. 2017a. "Choa is Officially Leaving AOA." June 22. Available online: <https://han.gl/cLas3/>.
- _____. 2017b. "Police Confirm Shinee's Jonghyon has Passed Away." December 18. Available online: <https://han.gl/4eCLx/>.
- _____. 2018. "This Member Left Oh My Girl because of Anorexia, Here's what She Looks like Now." March 21. Available online: <https://han.gl/HbNeT/>.
- _____. 2019a. "These are the Top 10 Richest Idols in All of K-pop." February 2. Available online: <https://han.gl/PxadG/>.
- _____. 2019b. "Police Confirms Sulli has Passed away for Suicide." October 14. Available online: <https://han.gl/zF6Ao/>.
- Korea Herald. 2015. "K-pop Stars See Earnings Rocket." January 12. Available online: <https://han.gl/c2ZI7/>.
- Kpop Profiles. Available online: <https://kprofiles.com/>.
- Lee, M-J. 2014. "EXO Member Luhan Files Lawsuit to Leave K-pop Group." *The Wall Street Journal*, Oct. 10, 2014. Available online: <https://www.wsj.com/articles/BL-KRTB-6745/>.
- Levin, M. and Milgrom, P. 2004. "Introduction to Choice Theory." Available online: <http://web.stanford.edu/~jdlevin/Econ%20202/Choice%20Theory.pdf>.
- Lie, J. 2012. "What is the K in K-pop? South Korean Popular Music, the Culture Industry, and National Identity." *Korea Observer* 43(3): 339–363.
- _____. 2014. *K-pop: Popular Music, Cultural Amnesia, and Economic Innovation in South Korea*. Berkeley: University of California Press.
- McCrae, R. and Costa, P. 2008. "A Five-Factor Theory of Personality." In *Personality Theory and Assessment*, edited by Pervin, L. Los Angeles: Sage Publications, pp. 273–289.

- Naver. 2015. ““Aju Naradaninete” Dari Apa Exo Taltoehan Taoui Junggung Gwanggo (Yeongsang).” [“It's very flying.” Tao left EXO because of leg pain (video)]. Available online: <https://han.gl/boXAC/>.
- Oh, I. 2009. “Hallyu: The Rise of Transnational Cultural Consumers in China and Japan.” *Korea Observer* 40(3): 425–459.
- _____. 2010. “Education and Development: Why are Koreans Obsessed with Learning?” *Comparative Sociology* 9(3): 308–327.
- _____. 2011. “Torn Between Two Lovers: Retrospective Learning and Melancholia among Japanese Women.” *Korea Observer* 42(2): 223–254.
- _____. 2013. “The Globalization of K-pop: Korea’s Place in the Global Music Industry.” *Korea Observer* 44(3): 389–409.
- Oh, I. and Park, G. 2012. “From B2C to B2B: Selling Korean Pop Music in the Age of New Social Media.” *Korea Observer* 43(3): 365–395.
- Park, S. 2015. “Brief Report: Sex Differences in Suicide Rates and Suicide Methods among Adolescent in South Korea, Japan, Finland, and the U.S.” *Journal of Adolescence* 40: 74–77.
- Salgado, J. 1997. “The Five Factor Model of Personality and Job Performance in the European Community.” *Journal of Applied Psychology* 82 (1): 30–43.
- Shim, D. 2006. “Hybridity and the Rise of Korean Culture in Asia.” *Media, Culture & Society* 28 (1): 24–44.
- Sinha, J. 2019. “BTS Tops Billboard 100 List: How K-pop Helped Korea Improve its Economy.” *Economic Times*, Jul. 30, 2019. Available online: <https://han.gl/vBoRn/>.
- Soompi. 2018. “Gugudan’s Hyeyeon Taking Break from all Activities due to Health Reasons.” May 17. Available online: <https://han.gl/yx98z/>.
- Turnbull, J. 2017. “Just Beautiful People Holding a Bottle.” *Celebrity Studies* 8(1): 128–135.
- Wikipedia. Available online: <https://www.wikipedia.org/>.
- Williamson, L. 2011. “The dark side of South Korean pop music.” BBC, Jun. 15, 2011. Available online: <https://www.bbc.com/news/world-asia-pacific-13760064/>.
- Work Macro. 2018. “Instagram statistics.” March 12. Available online: <https://workmacro.com/instagram/follower-following-ratio-say-instagram-account/>.
- Yamashita, T. Bardo, A.R. and Liu, D. 2016. “Are East Asian Happy to Work More or Less?” *Asian Journal of Social Psychology* 19(3): 264–274.
- Yoon, K. 2017. “Global Imagination of K-pop: Pop Music Fans’ Lived Experiences of Cultural Hybridity.” *Popular Music and Society* 41(4): 373–389.

YouTube. Available online: <https://www.youtube.com/>.

Appendix

Table 1 K-pop Groups Included in the Sample

Number	Group	Year of Debut	Number of Members	Number of earlier dropouts
1	TVXQ (M)	2003	2	3 (Hero, Micky, Xiah)
2	Super Junior (M)	2005	12	3 (Hangeng, Kibum, Kangin)
3	Girls' Generation (F)	2007	6	1 (Jessica, 2015)
4	F(x) (F)	2009	4	1 (Sulli, 2015)
5	Shinee (M)	2009	4	1 (Jonghyun, 2018)
6	Block B (M)	2011	7	0
7	B1A4 (M)	2011	5	0
8	Apink (F)	2011	6	0
9	BIG BANG (M)	2011	5	0
10	Dal Shabet (F)	2011	6	1 (Viki, 2012)
11	AKMU (M)	2012	2	0
12	JJ Project (M)	2012	2	0
13	Nu'Est (M)	2012	5	0
14	EXO (M)	2012	12	3 (Luhan, Tao, Kris)
15	AOA (F)	2012	6	1 (Choa, 2017)
16	BTS (M)	2013	7	0
17	2000 Won (M)	2013	2	0
18	JJCC (M)	2014	6	0
19	Uniq (M)	2014	5	0
20	Got7 (M)	2014	7	0
21	Laboum (F)	2014	5	0
22	Red Velvet (F)	2014	5	0
23	Winner (M)	2014	4	0
24	Mamamoo (F)	2014	4	0
25	Lovelyz (F)	2014	8	0
26	Dreamcatcher (F)	2014	7	0

27	Romeo (F)	2015	7	0
28	Playback (F)	2015	5	0
29	TWICE (F)	2015	9	0
30	iKON (M)	2015	7	0
31	MONSTA X (M)	2015	7	0
32	Gfriend (F)	2015	6	0
33	Day6 (M)	2015	6	1
34	Seventeen (M)	2015	12	0
35	Oh My Girl (F)	2015	7	1 (JinE, 2017)
36	Year 7 Class 1 (F)	2015	7	0
37	Big Brain (M)	2015	4	0
38	HeartB (M)	2015	4	0
39	Map6 (M)	2015	5	0
40	Sonamoo (F)	2015	7	0
41	Onewe (M)	2015	5	0
42	Pretty Brown (M)	2015	2	0
43	Snuper (M)	2015	6	0
44	UP10Tion (M)	2015	10	0
45	Astro (M)	2016	6	0
46	CLC (F)	2015	7	0
47	BLACKPINK (F)	2016	4	0
48	Gugudan (F)	2016	8	1 (Hyeyeon)
49	N.Flying (M)	2016	5	1 (Kwaing-jin)

Table 2: Descriptive statistics of K-pop artists and groups*

Member	Achievement	Age	Gender	Youtube	Longevity	No. Memb.
TVXQ 1	1	33	0	65	16	5
TVXQ 2	1	35	0	65	16	5
TVXQ 3	0	24	0	65	16	5
TVXQ 4	0	24	0	65	16	5
TVXQ 5	0	23	0	65	16	5
SJ 1	1	36	0	178	14	12
SJ 2	1	36	0	178	14	12
SJ 2	1	35	0	178	14	12
SJ 3	1	34	0	178	14	12
SJ 4	1	33	0	178	14	12
SJ 5	1	33	0	178	14	12
SJ 6	1	33	0	178	14	12
SJ 7	1	33	0	178	14	12
SJ 8	1	32	0	178	14	12
SJ 9	1	31	0	178	14	12
SJ 10	0	32	0	178	14	12
SJ 11	0	27	0	178	14	12
SJ 12	0	22	0	178	14	12
GG 1	1	30	1	229	12	9
GG1	1	30	1	229	12	9
GG 2	1	30	1	229	12	9
GG 3	1	30	1	229	12	9
GG 4	1	30	1	229	12	9
GG 5	1	29	1	229	12	9
GG 6	0	25	1	127	12	8
F(X) 1	1	32	1	127	10	5
F(X) 2	1	26	1	127	10	5
F(X) 3	1	27	1	127	10	5
F(X) 4	1	25	1	127	10	5

F(X) 5	0	25	1	127	10	5
Shinee 1	1	30	0	121	10	5
Shinee 2	1	28	0	121	10	5
Shinee 3	1	28	0	121	10	5
Shinee 4	0	27	0	121	10	5
Block B 1	1	27	1	30	8	6
Block B 2	1	29	1	30	8	6
BlockB 3	1	29	1	30	8	6
Block B 4	1	29	0	30	8	6
BlockB 5	1	27	0	30	8	6
BlockB6	1	27	0	30	8	6
BlockB 7	1	26	0	30	8	6
B1A4 1	1	28	0	16	8	5
B1A4 2	1	27	0	16	8	5
B1A4 3	1	26	0	16	8	5
B1A4 4	1	28	0	16	8	5
B1A4 5	1	27	0	16	8	5
Apink1	1	28	0	78	8	6
Apink 2	1	26	0	78	8	6
Apink 3	1	26	0	78	8	6
Apink 4	1	25	1	78	8	6
Apink 5	1	24	1	78	8	6
Apink 6	1	23	1	78	8	6
BIG BANG 1	1	31	1	444	8	5
BIG BANG 2	1	32	1	444	8	5
BIG BANG 3	1	31	1	444	8	5
BIG BANG 4	1	30	0	444	8	5
Dal1	1	29	0	14	8	6
Dal2	1	28	0	14	8	6
Dal3	1	28	0	14	8	6
Dal4	1	28	1	14	8	6

Dal5	1	27	1	14	8	6
Dal6	1	25	1	14	8	2
AKMU1	1	23	1	40	7	2
AKMU2	1	20	1	40	7	2
JJP1	0	25	0	22	7	2
JJP2	1	25	0	22	7	2
NUEST 1	1	24	0	113	7	5
NUEST 2	1	26	0	113	7	5
NUEST 3	1	24	0	113	7	5
NUEST 4	1	24	0	113	7	5
NUEST 5	1	24	0	113	7	5
EXO 1	1	28	0	323	7	12
EXO 2	1	29	0	323	7	12
EXO 3	1	27	0	323	7	12
EXO 4	1	27	0	323	7	12
EXO 5	1	27	0	323	7	12
EXO 6	1	26	0	323	7	12
EXO 7	1	25	0	323	7	12
EXO 8	1	25	0	323	7	12
EXO 9	1	28	0	323	7	12
EXO 10	0	23	0	323	7	12
EXO 11	0	22	0	323	7	12
EXO 12	0	23	0	323	7	12
AOA 1	1	28	0	80	7	7
AOA 2	1	27	0	80	7	7
AOA 3	1	24	1	80	7	7
AOA 4	1	26	1	80	7	7
AOA 5	1	23	1	80	7	7
AOA 6	1	27	1	80	7	7
BTS 1	1	25	1	968	6	7
BTS 2	1	27	1	968	6	7

BTS 3	0	26	1	968	6	7
BTS 4	1	25	0	968	6	7
BTS 5	1	24	0	968	6	7
BTS 6	1	24	0	968	6	7
BTS 7	1	22	0	968	6	7
2WON 1	1	25	0	1	6	2
2WON 2	1	25	0	1	6	2
JJC 1	1	27	0	2	6	6
JJC 2	1	32	0	2	6	6
JJC 3	1	29	0	2	6	6
JJC 4	1	27	0	2	6	6
JJC 5	1	27	0	2	6	6
JJC 6	1	26	0	2	6	6
UNIQ 1	1	29	0	10	5	5
UNIQ 2	1	25	0	10	5	5
UNIQ 3	1	25	0	10	5	5
UNIQ 4	1	23	0	10	5	5
UNIQ 5	1	22	0	10	5	5
GOT7 1	1	25	0	315	5	7
GOT7 2	1	26	0	315	5	7
GOT7 3	1	25	0	315	5	7
GOT7 4	1	25	0	315	5	7
GOT7 5	1	23	0	315	5	7
GOT7 6	1	22	0	315	5	7
GOT7 7	1	22	0	315	5	7
Laboum 1	1	27	0	5	5	5
Laboum 2	1	25	0	5	5	5
Laboum 3	1	25	0	5	5	5
Laboum 4	1	24	1	5	5	5
Laboum 5	1	22	1	5	5	5
Red Velvet	1	28	1	260	5	6

Red Velvet	1	25	1	260	5	6
Red Velvet	1	25	1	260	5	6
Red Velvet	1	23	1	260	5	6
Red Velvet	1	20	1	260	5	6
Red Velvet	1	25	1	260	5	6
Winner 1	1	25	1	137	5	5
Winner 2	1	28	1	137	5	5
Winner 3	1	27	1	137	5	5
Winner 4	1	26	0	137	5	5
Winner 5	1	25	0	137	5	5
Mamamoo 1	1	28	0	106	5	4
Mamamoo 2	1	27	0	106	5	4
Mamamoo 3	1	24	0	106	5	4
Mamamoo 4	1	24	1	106	5	4
Lovelyz 1	1	27	1	11	5	8
Lovelyz 2	1	26	1	11	5	8
Lovelyz 3	1	25	1	11	5	8
Lovelyz 4	1	25	1	11	5	8
Lovelyz 5	1	24	1	11	5	8
Lovelyz 6	1	23	1	11	5	8
Lovelyz 7	1	22	1	11	5	8
Lovelyz 8	1	21	1	11	5	8
DREAM 1	1	25	1	13	5	7
DREAM 2	1	25	1	13	5	7
DREAM 3	1	24	1	13	5	7
DREAM 4	1	23	1	13	5	7
DREAM 5	1	22	1	13	5	7
DREAM 6	1	22	1	13	5	7
DREAM 7	1	20	1	13	5	7
ROMEO 1	1	25	1	1	4	7
ROMEO 2	1	23	1	1	4	7

ROMEO 3	1	23	1	1	4	7
ROMEO 4	1	23	1	1	4	7
ROMEO 5	1	22	1	1	4	7
ROMEO 6	1	21	1	1	4	7
ROMEO 7	1	20	1	1	4	7
PLAY 1	1	23	1	9	4	5
PLAY 2	1	27	1	9	4	5
PLAY 3	1	26	1	9	4	5
PLAY 4	1	25	1	9	4	5
PLAY 5	1	22	1	9	4	5
TWICE 1	1	22	1	515	4	9
TWICE 2	1	24	1	515	4	9
TWICE 3	1	23	1	515	4	9
TWICE 4	1	23	1	515	4	9
TWICE 5	1	23	1	515	4	9
TWICE 6	1	22	1	515	4	9
TWICE 7	1	21	1	515	4	9
TWICE 8	1	20	1	515	4	9
TWICE 9	1	20	1	515	4	9
IKON 1	1	25	1	158	4	7
IKON 2	1	24	1	158	4	7
IKON 3	1	24	1	158	4	7
IKON 4	1	22	0	158	4	7
IKON 5	1	22	0	158	4	7
IKON 6	1	21	0	158	4	7
IKON 7	1	23	0	158	4	7
Monsta X 1	1	27	0	102	4	7
Monsta X 2	1	26	0	102	4	7
Monsta X 3	1	26	0	102	4	7
Monsta X 4	1	25	0	102	4	7
Monsta X 5	1	25	0	102	4	7

Monsta X 6	1	23	0	102	4	7
Monsta X 7	1	26	0	102	4	7
GFriend 1	1	24	0	58	4	6
GFriend 2	1	23	0	58	4	6
GFriend 3	1	22	0	58	4	6
GFriend 4	1	22	1	58	4	6
GFriend 5	1	21	1	58	4	6
GFriend 6	1	21	1	58	4	6
DAY6 1	1	26	1	32	4	5
DAY6 2	1	27	1	32	4	5
DAY6 3	1	26	1	32	4	5
DAY6 4	1	25	0	32	4	5
DAY6 5	1	24	0	32	4	5
Seventeen 1	1	24	0	162	4	12
Seventeen 2	1	24	0	162	4	12
Seventeen 3	1	24	0	162	4	12
Seventeen 4	1	23	0	162	4	12
Seventeen 5	1	23	0	162	4	12
Seventeen 6	1	23	0	162	4	12
Seventeen 7	1	23	0	162	4	12
Seventeen 8	1	22	0	162	4	12
Seventeen 9	1	22	0	162	4	12
Seventeen10	1	22	0	162	4	12
Seventeen11	1	21	0	162	4	12
Seventeen12	1	21	0	162	4	12
OhMyGirl 1	1	25	0	18	4	8
OhMyGirl 2	1	24	0	18	4	8
OhMyGirl 3	1	24	0	18	4	8
OhMyGirl 4	1	23	1	18	4	8
OhMyGirl 5	1	22	1	18	4	8
OhMyGirl 6	1	22	1	18	4	8

OhMyGirl 7	1	20	1	18	4	8
OhMyGirl 8	1	24	1	18	4	8
Gugudan 1	1	26	1	10	4	8
Gugudan 2	1	26	1	10	4	8
Gugudan 3	0	24	1	10	4	8
Gugudan 4	1	24	1	10	4	8
Gugudan 5	1	23	1	10	4	8
Gugudan 6	1	23	1	10		8
Gugudan 7	1	23	1	10	4	8
Gugudan 8	1	20	1	10	4	8
NFL 1	1	27	1	23	4	5
NFL 2	1	25	1	23	4	5
NFL 3	1	25	1	23	4	5
NFL 4	1	24	0	23	4	5
NFL 4	1	23	0	23	4	5
NFL 5	1	27	0	23	4	5
BLACKP 1	1	24	0	1400	4	4
BLACKP 2	1	23	0	1400	4	4
BLACKP 3	1	22	0	1400	4	4
BLACKP 4	1	22	1	1400	4	4
CLC 1	1	23	1	31	4	4
CLC 2	1	24	1	31	4	7
CLC 3	1	23	1	31	4	7
CLC 4	1	23	1	31	4	7
CLC 5	1	21	1	31	4	7
CLC 6	1	21	1	31	4	7
CLC 7	0	19	1	31	4	7
ASTRO 1	1	23	1	18	3	6
ASTRO 2	1	25	1	18	3	6
ASTRO 3	1	22	1	18	3	6
ASTRO 4	1	21	0	18	3	6

ASTRO 5	1	20	0	18	3	6
ASTRO 6	1	19	0	18	3	6
UP10 1	1	24	0	7	3	10
UP10 2	1	24	0	7	3	10
UP10 3	1	23	0	7	3	10
UP10 4	1	23	0	7	3	10
UP10 5	1	23	0	7	3	10
UP10 6	1	23	0	7	3	10
UO10 7	1	23	0	7	3	10
UP10 8	1	22	0	7	3	10
UP10 9	1	21	0	7	3	10
UO101 0	1	21	0	7	3	10
SNUPER 1	1	25	0	1	3	6
SNUPER 2	1	27	0	1	3	6
SNUPER 3	1	26	0	1	3	6
SNUPER 4	1	25	0	1	3	6
SNUPER 5	1	24	0	1	3	6
SNUPER 6	1	23	0	1	3	6
PrettyB 1	1	25	0	1	3	1
Pretty B 2	1	25	0	1	3	5
ONEWE 1	1	25	0	1	3	5
ONEWE 2	1	21	0	1	3	5
ONEWE 3	1	21	0	1	3	5
ONEWE 4	1	19	0	1	3	5
ONEWE 5	1	19	0	1	3	5
Sonamoo 1	1	25	0	5	3	7
Sonamoo 2	1	24	0	5	3	7
Sonamoo 3	1	23	0	5	3	7
Sonamoo 4	1	23	1	5	3	7
Sonamoo 5	1	22	1	5	3	7
Sonamoo 6	1	25	1	5	3	7

Sonamoo 7	1	24	1	5	3	7
MAP6 1	1	27	1	1	3	5
MAP6 2	1	25	1	1	3	5
MAP6 3	1	25	1	1	3	5
MAP6 4	1	24	0	1	3	5
MAP6 5	1	23	0	1	3	5
Heart B 1	1	24	0	1	3	4
Heart B 2	1	25	0	1	3	4
Heart B 3	1	24	0	1	3	4
Heart B 4	1	22	0	1	3	4
Big Brain 1	1	26	0	1	3	4
Big Brain 2	1	28	0	1	3	4
Big Brain 3	1	25	0	1	3	4
Big Brain 4	1	24	0	1	3	4
YEAR 7 1	1	28	0	1	3	7
YEAR 7 2	1	27	0	1	3	7
YEAR 7 3	1	26	0	1	3	7
YEAR 7 4	1	25	1	1	3	7
YEAR 7 5	1	23	1	1	3	7
YEAR 7 6	1	22	1	1	3	7
YEAR 7 7	1	20	1	1	3	7

* Girls' Generation currently consists of five members, but the former member Jessica was included in the statistics as a dropout. F(x) was still active in 2019 and the member Sulli had not yet committed suicide, why she was considered a non-suicide dropout. However, Jonghyun of Shinee had already committed suicide in 2017 and was not thus considered a current member, although statistically a dropout.

Sources: www.instagram.com, www.youtube.com, www.kpopprofiles.com.