

Enhancing Stablecoin (app) Usage Intention

A Social Psychological Solution

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Management Summary

Climate change is one of the biggest issues the world faces today. One of the main reasons why it is so challenging to solve is that people do not feel like their efforts to act sustainably, have visible results. There is no direct feedback. What if we could find ways to make sustainability interactive?

Terheijden is a village that is making its way towards complete self-sufficient green energy production. While this is admirable, the energy provider struggles with lack of engagement from the villagers. Looking for ways to invest in the local community, we found that stablecoin could be an interesting way to boost engagement and stimulate the local economy through interactive sustainability.

Stablecoin would serve as a local (regionally bound) payment method, where households receive coins (sustainable dividend) to spend at local and sustainable companies. This modern take on local investment is safe and efficient, built on blockchain technology. Quantoz provides a ready-to-use solution: Stablecoin As A Service. To make stablecoin payments, users will have to install an app. This can form a psychological barrier.

A two-dimensional psychological influence intervention led to the following advice:

- Create emphasis on information that communicates the function and relevance of the stablecoin program and app
- Create emphasis on congruence in app and target group values
- Create positive associations between (1) safety and trustworthiness and (2) the stablecoin service and app
- Increase brand/company familiarity and trust through multiple exposure

Usage of manuals and instruction videos, as well as role models in visual advertisement and multiple exposure are encouraged as means to enhance the above factors when designing a campaign.

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1. Introduction

Enhancing stablecoin (app) usage behaviour

The usage behaviour of products and/or apps is determined by many psychological factors, depending on the nature of the given product. In the current report, these factors are researched for the specific case of stablecoin, followed by an in-depth examination of the autonomy of the drives behind the desired behaviour, using a research-based constructed social psychological intervention model. This intervention model then serves as the base of a campaign, highlighting significant factors to influence stablecoin (app) usage intention. Lastly, advice is generated and elaborated.

Local payment method in Terheijden

Secondly, this report will provide insight in enhancing usage behaviour when applied to a local project. With an eye on exploring further opportunities that stablecoin has to offer, a connection to a local project was made: Quantoz was linked to the Traais Energie Collectief (www.traaiseenergiemaatschappij.nl) in Terheijden, Noord-Brabant. The village of Terheijden is undergoing a complete transition from traditional to local green energy. Naturally, this has an effect on the local collective identity (whether it be local companies or inhabitants). The novelty of this transition, together with the alterations in felt identity, is an opportunity to introduce a new initiative that provides relevant benefits to locals.

Stablecoin (in future text referenced to as: SC) could be used to enhance local solidarity, identity as well as economy wise, and to stimulate sustainable services (e.g. by means of loyalty programmes). The latter is likely to create a brand association of Quantoz with sustainability (branding) and the initiative, as a whole, is likely to induce heightened brand awareness. Similar projects have been established in other countries (a well-known example is the *Sardex* in Sardinia) as well as in the Netherlands (e.g. Utrechtse euro); these initiatives could be examined as cases to gain a deeper understanding of the dynamics that are involved with local currencies.

2. Problem Definition and Analysis

To examine the question of how to increase usage intention of SC and the SC app, a broader question of local implementation is taken under the loop: How to get the local community to use the SC mobile app? This problem namely includes general issues that arise when looking at the main question and additionally includes issues that are specific to local implementation.

How to get the local community to use the SC mobile app?

This broad question is the beginning of the necessary problem definition, hence of the entire intervention. The question can be divided into two segments of importance: *the local community* and *the willingness to use the mobile app*.

The local community is an important part of the problem, for it is the part at which the intervention is aimed directly. Since the local community consists of people, the question in matter can be seen as a social problem. Therefore, the problem consists of various underlying psychological components. To understand what these components are, it is of importance to assess why this is a problem to start with. This is elaborated on further below.

When looking at the second segment of the problem, the willingness to use the SC mobile app, other factors of importance arise. When looking at influences on whether or not people are willing to download an app, perceived usefulness and a positive attitude seem to be the most important factors (Bhattacharjee & Sanford, 2006). In other words, if people are not aware of why the app is beneficial to them and do not have a positive attitude or feeling towards the app, the intention to download the app will likely not occur.

In addition, the fact that people are dealing with a new technological innovation might bring some hinder. SC is a relatively new currency and a crypto currency, of which the underlying mechanics are, to many people, rather mysterious. Complex novel innovations are often misunderstood, and therefore not easily trusted or incorporated into the life(style) of an individual. Money and payment methods are even more sensitive to this effect because they are seen as 'high risk', which makes SC likely a more challenging innovation to trust.

Another risk of a novel product or service is that people might not know anything about it and are therefore unaware of why they would benefit from it. Novelty and in general influences on lifestyle or daily routines also have the psychological disadvantage that people generally do not like change; especially if they might have the idea that they did not have participation in the implementation process or if they feel the change is imposed onto them (Choch & French, 1948).

There are four distinguishable parties that are involved with this problem:

- Local customers (inhabitants)
- Local merchants (companies)
- Local issuer (TEC)
- Quantoz (SC service provider)

The target group that would be most effectively influenced regarding this specific problem, is the local community, which would involve the local customers as well as the local merchants. Subsequently, the intervention will be aimed at the local community.

3. Theory Based Explanations

Divergent phase

Based on the problem definition, it is possible to take a closer look at explanations. When using theory to generate explanations for *the unwillingness to use the Quantoz SC mobile app*, the following arise:

- App relevancy is not clear (lack of information)
- Privacy is a concern, people may be afraid to give up personal information (lack of information, lack of trust)
- Trust with regard to payment information (lack of trust)
- Relevancy of using SC is not clear (lack of information, lack of familiarity)
- Trustworthiness of Quantoz is not clear (lack of familiarity, lack of match between personal and brand values)
- Barrier in effort to download an app (lack of motivation)
- Feeling that product is forced onto them (lack of control)

Convergent phase

After generating these explanations, four main components can be distinguished that taken together, influence the unwillingness to use the Quantoz SC mobile app. These are the following:

1. Lack of trust
 - Regarding privacy, personal information in app. From a broader perspective, this comes down to lack of information
 - Regarding Quantoz as a company. This comes down to lack of familiarity
2. Lack of information
 - Regarding SC service
 - Regarding SC mobile app and why it is useful
 - Regarding privacy and personal information in SC mobile app
3. Lack of familiarity
 - With Quantoz. Familiarity can be built through mere exposure, as well as by matching brand values with personal or social values
4. Lack of motivation
 - To download app. Motivation tends to be higher when rewards or points can be obtained. Motivation is also affected by argument quality and source credibility

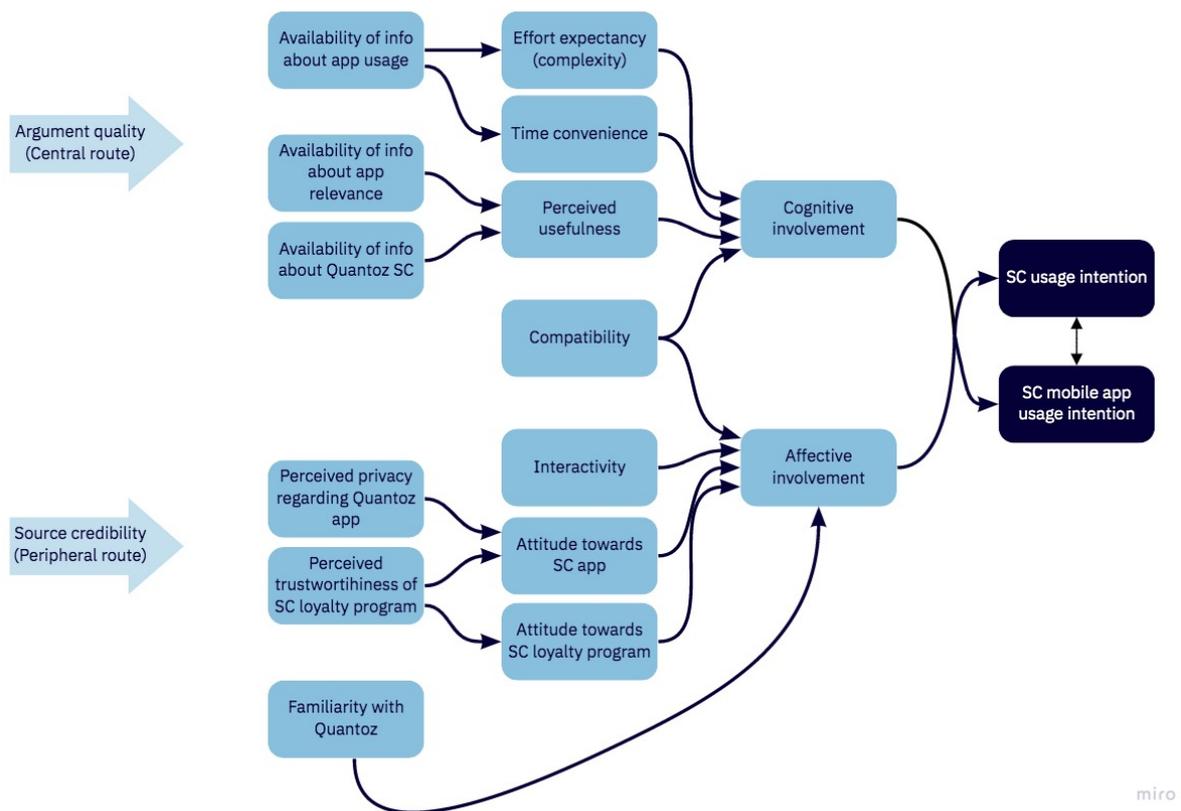
Intervention

Based on the problem definition, the psychological intervention should be aimed at increasing behaviour willingness. Factors that influence this willingness are to be researched. This outcome variable can be divided in two:

- Willingness to use the SC app
- Willingness to use SC as a payment method

4. Intervention Model

When aiming to influence the outcome variables, thus willingness to use stablecoin as payment method as well as willingness to use the QuantoZ SC app, factors that influence those variables should be examined. The willingness to perform behaviour is, based on literature research that examines what most directly influences behaviour, more effectively described as *usage intention* (Kang, Mun, & Johnson, 2015). Subsequently, the following research-based model is composed (references at the end of this report).



Model 1. Flow chart of variables influencing SC (mobile app) usage intention.

The outcome variables SC usage intention and SC mobile app usage intention are two separate behaviours, although closely intertwined. Hence, the model would be able to influence both these factors through the *central*¹ as well as the *peripheral*² cognitive route.

As displayed in the model, multiple factors influence both cognitive involvement as well as affective involvement. Cognitive involvement is influenced by the overarching construct *argument quality*, while affective involvement is influenced by the overarching construct *source credibility*.

Argument credibility and influencing factors

Availability of info about app usage, meaning the degree to which there is information available about the way the app works. This influences the factors effort expectancy, relating to the degree to which users expect having to invest energy in order to use the app, thus app complexity. In addition, availability influences time convenience, meaning the amount of time users expect to save when using the app compared to not using the app (thus, app efficiency).

Availability of info about app relevance, meaning the degree to which there is information available about why the app is relevant and what the benefits of using the app are. This, together with availability of info about the SC service, influences perceived usefulness, which relates to the degree to which the user perceives the app to be useful.

Compatibility relates to the degree to which the user sees the app as fitting with their personal preferences and needs. This, together with effort expectancy, time convenience and perceived usefulness, then influences cognitive involvement, which refers to the degree to which the user is rationally positively involved. This is one of two factors directly influencing SC mobile app usage intention and SC usage intention.

Source credibility and influencing factors

Perceived privacy regarding Quantoz app, meaning the degree to which the user perceives their personal information to be secure, along with perceived trustworthiness of the SC loyalty program, meaning the degree to which the user feels trust and safety associated with the SC loyalty program. These two factors influence attitude towards SC app, which refers to the degree to which the user

¹ The central route of cognitive influence relates to active, aware information processing and is mostly influenced by argument quality.

² The peripheral route of cognitive influence relates to passive, subliminal information processing and is mostly influenced by source credibility

has a positive view when thinking about the SC app. Perceives trustworthiness also influences the factor attitude towards SC loyalty program, which is the degree to which the user has a positive view when thinking about the SC loyalty program.

The factors attitude towards SC app and attitude towards SC loyalty program influence affective involvement, which refers to the degree to which the user is involved in terms of knowledge and information-based judgement. In addition, affective involvement is directly influenced by interactivity and familiarity with Quantoz. Interactivity refers to the degree of communication between the user and the app. Higher interactivity is associated with higher involvement and higher familiarity, influencing affective involvement. Familiarity with SC as a concept or Quantoz as company increases positive associations (due to the mere-exposure effect) as long as the familiarity is not explicitly negative (e.g. due to negative press). This subsequently influences affective involvement.

5. Campaign

Based on the intervention model, an outline for a campaign can be composed. In order to design a campaign, one must take into consideration especially the influential factors shown in the intervention model. Below, each factor will be described in detail, applied to a campaign. Following, a blueprint design of a practical campaign will be illustrated.

Influential factors

Availability of info about app usage

The degree of information about app usage that is available is determined two ways. Firstly, the amount that is physically available. This depends on the amount of information about app usage that exists. For example, constructing a complete manual or the application or by making instruction videos of how to pay with the SC mobile app. Secondly, availability is determined by how accessible this information is to people. If the information is distributed amongst potential users or easy to find (e.g. online on a website where potential users browse frequently), availability increases. Increased availability of info about app usage then influences following factors effort expectancy and time convenience. If the former is decreased and the latter is increased, cognitive involvement will likely be higher. Higher cognitive involvement is positively related to higher usage intention (Kang, Mun, & Johnson, 2015).

Availability of info about app relevance

The degree of availability of information about app relevancy is determined two ways, similar to the degree of availability of information about app usage. Physical availability, thus accessibility, is, for instance, realised in a similar way by means of a manual or instruction video. Through these means, in addition to gaining an understanding of how the SC app operates, the personal benefit of using the app should become more apparent. Awareness of the personal benefit of using the SC app is an important influence to increase perceived usefulness. Heightened perceived usefulness is likely to increase cognitive involvement, which positively related to higher SC (app) usage intention.

Availability of info about stablecoin

The amount of information about SC that is available, influences the understanding of SC and why it is useful. As with availability of information about app usage and app relevance, the information about SC should be broadly available. A good example would be short, informative videos explaining what SC is and how it may be used in practice. Secondly, these videos should be easily accessible.

Thus, before launching a project, potential users would ideally have been in contact with these informative videos. If there is a broader understanding of the usefulness of SC, as a consequence, understanding of the usefulness of SC and possibly of the SC app will increase. Heightened usefulness is positively associated with higher SC (app) usage intention.

Compatibility

The degree to which the app user perceives the app values to be compatible with their personal preferences and needs, relates to the way the app is marketed and possibly the app design. In order to increase compatibility, the preferences and needs of the user population should thus be clear, so the highlighted app benefits and features can correspond accordingly. Alternatively, the app could be designed in such a way that users can personalize it to their own preferences and needs. Nevertheless, the influence of compatibility is likely most effective as a campaign if users perceive the app to be inherently compatible (Torelli, Özsomer, Carvalho, Keh, & Maehle, 2012) because this specifically communicates that the company of service values align with those of the user, increasing brand identification and brand trust, which will positively impact not only cognitive, but also affective involvement. An example of app compatibility would be, if the target group lives in an area where being environmentally sustainable is highly valued, to integrate this value in the app design, such as making an extra feature that enables users to keep track of the carbon footprint of their SC usage, or to stimulate investing in sustainable rather than non-sustainable products using SC.

Perceived privacy regarding (Quantoz) SC app

The degree of perceived privacy relies on the extent to which a potential user associates privacy and safety with the SC app. These associations can be realised through multiple means, one of which being the use of privacy-related words when describing the product. Perceived privacy is generally targeted by means of explaining the logics of why a product is designed with respect regarding the privacy of the user. However, while this is partly effective, privacy is predominantly a sense to users. Consecutively, in addition to ensuring potential users *think* or *believe* the app is safe to use, it is relevant to ensure potential users *feel* safe when they think about using the app. Thus, using words that activate associations with privacy (such as: confidential, secure, private) and safety (such as: secure, guarded, sheltering, protection) whenever describing the app, can be highly beneficial to eventually increase usage intention.

Perceived trustworthiness of SC program

The degree of perceived trustworthiness depends on multiple factors that ensure a feeling of trust towards the SC program/service. One of these factors is association between the SC program/service and feelings of trust.

A way to create positive association between the SC program/service and trust is to expose potential users to information that implies the trustworthiness of SC as a program/service. One effective way in which potential users can perceive this information is through word of mouth, or electronic word of mouth, such as online reviews. Another way to provide this information is through visual cues, such as online advertisements in which feelings of trust are stimulated through visible emotion, for example in which users are shown who visibly feel safe and trusting when using SC. These users then operate as role models. Role models are found to be most effective when they resemble the target audience. Thus, when role models visibly feature similarities in relation to the viewer, may these be socio-cultural, physical and/or geographical; this has a positive effect on feelings of trust of the viewer.

Another way to enhance trust towards the SC program/service is by increasing familiarity with the brand or concept. Brand familiarity is positively associated with brand trust (Ha & Perks, 2005). This means that, generally speaking, more exposure to a concept enhances trust. This means that the described above, thus exposure to trust implying visual information or (electronic) word or mouth, would also contribute to enhancing trust, because these methods naturally increase exposure.

Familiarity with Quantoz (or partner company)

Familiarity with Quantoz as a company (in cases where Quantoz is a visible/present party) or in other cases with the concerning executing company, directly influences affective involvement through subliminal feelings of connection. The effect described above; exposure leading to familiarity also implies when trying to enhance general familiarity, leading to enhanced connection and trust.

Interactivity

Interactivity directly influences affective involvement through subliminal feelings of connection, created by interaction between the app and the user. Thus, if there are more interactive components to the app, such as changeable layout and settings, insight in SC usage, tips and feedback, there will be a stronger sense of communication to the app, which enhances affective involvement.

Campaign Components

Thus, when taking these social-psychological influences into consideration, essential components for a campaign can be generated. Summarizing factors that have overlap and are high in impact, an effective campaign would aim at enabling:

- A high availability of easily accessible information, showing the function and relevance of the SC concept, program/service and app.
- A high congruence in target group and app values.
- Positive associations between (1) safety and trustworthiness and (2) the SC program/service and app.
- Brand/company and product familiarity and trust through multiple exposure.

Which leads to a campaign that ideally includes the following components:

- A(n online) manual and/or instruction video, enforcing cognitive involvement
- Visual stimuli such as role modelling using photo/video advertisement and (e-)WOM, enforcing affective involvement
- Multiple exposure of SC as a product/service and of the Quantoz (or affiliate) company/brand, enforcing affective involvement

Campaign Description

A successful campaign would be two-dimensional. For illustrative purposes, the Terheijden project will be used as campaign environment.

The first dimension would tap into affective involvement, using different means of association to enhance feelings of privacy, trust and familiarity. Using *neighbour* role models that are highly relatable to the local inhabitants of Terheijden is likely to have the strongest effect. Each role model should be relatable to a different group in the population. To name a few roles that are evident in Terheijden, there should be a male middle-aged farmer, a thirty-year old couple with a young kid, an elder retired lady and a teenage young man (preferably with a friend and a scooter). Given that trust is one of rather challenging factors specifically related to the population in Terheijden, the role models should show a high level of trust using SC and the SC app, for example by making a big payment and emphasizing how safe and easy the SC app is to use. Privacy-related words should be used throughout the campaign to stimulate positive association between privacy and using (the) SC (app). For example, a role model could say a phrase like: “My stablecoins are *stored* and *protected* in my online wallet”. In video advertisements, each advertisement should portray a different role model, at recognizable locations throughout Terheijden to enhance relatability. Recurring advertisements enable familiarity through the multiple exposure effect.

Tapping into the values of the target group in Terheijden, cognitive involvement as well as affective involvement is activated. Using the local values of community and familiarity, examples include showing role models paying with SC together while at a bar or at a shop. Specific groups can hold different values. An example of how to apply this, would be as follows. There is a group of working couples (around age 30) with young kids in Terheijden. They are found to hold the values of sustainability and innovation. The role models that represent this specific group in a campaign, would say a phrase like: “The stablecoin app is *innovative*, but very easy to use. It enables us to invest in local *sustainable* companies”. The same way as in potential campaign videos, values could be emphasized in informational videos. However, informational videos are often aimed at the general, and not specific groups. Therefore, general and not group-specific values should be emphasized.

This leads to the other dimension; cognitive involvement. While the contents of the informational manuals or videos all come down to clear explanation of the product or program, with emphasis on *how to* use (the) SC (app) and *why* it is relevant to use it, the distribution is important when implemented locally. Instruction manuals as well as informational videos should be distributed in a way that is easily accessible, such as at the information page of the distributing company (in this specific case: TEC). Online marketing allows for specific local distribution. If using flyers or promotional photos to obtain initial interest of locals, positioning a QR-code could redirect them to learn more about the program or app. Taken altogether, this campaign is an example of how to activate cognitive as well as affective involvement through influential factors as portrayed in the intervention model.

5. Recommendations and Conclusion

The report above illustrates ways to direct potential SC app users or a target audience towards a heightened SC (app) usage intention, for usage intention is the construct most closely related and most influential when looking at the desired outcome behaviour of downloading a mobile app.

Recommendations for local implementation

When looking at local implementation of SC (app) usage, a successful campaign should include local visual stimuli. These stimuli should be presented frequently, so there is opportunity for the multiple exposure effect to take place. Such a stimulus would be a picture of a role model that looks safe and content using the SC app. Subsequently, the role model should resemble the local inhabitants (in-group) as much as possible and be in a familiar local environment. The most effective would be to actually use a local as role model. Nevertheless, this is difficult in practice because the person would have to be completely neutral, as some negative affection towards the role model would have a counteracting effect.

A manual or instruction video would best be made tailored to suit the specific local environment with practical examples, such as one video that shows a role model paying with the SC app at the local bakery and another video that shows a role model paying with the SC app at the local bicycle repair shop. This way, the powerful effect of group norms is naturally included in the campaign.

Recommendations for current marketing environment

When looking at the current environment in which the SC app would be used, it is useful to look at similarities between potential users. When these similarities are apparent, the recommendations featured in the local implementation plan could be applied. Nevertheless, since it might be complex to pin down similarities, seen the divergence of the group of potential users, it is useful to look at more general applicable social psychological approaches of influence. Thus, while multiple exposure stays at core when offering visual stimuli, the role models would be more generalized and therefore more diverse when considering campaign content. In this case, using upward social comparison (Festinger, 1954) would be more effective. Upward social comparison implies that people compare themselves with people that are in some aspect(s) in a better position than them. Using a role model of, for example, higher economical status would in this case be effective because the product context is economical and thus in congruence with the values of the potential user when considering to use the SC app (Malär, Krohmer, Hoyer, & Nyffenegger, 2011). In

addition, it is likely that potential SC users value safety if they consider using SC. Therefore, this value should be prioritized in the campaign, through the role models expressing safety in addition to trust.

Instruction manuals as well as instruction videos are easily distributed and easily accessible in the online context, if they are located wisely (thus, on a frequently visited page on the website, or effectively placed in web and video search algorithms relating to SC and other safe online payment methods). A manual or instruction video should describe precisely how and why SC is used as a payment method, then describing how and why the SC app is used, to emphasize the many possibilities that using SC and the SC app brings. The latter is of high importance, to ensure relevancy to potential users. Again, the values safety and trust should be emphasized in order to match the app values with user values (congruence) in a way that enhances cognitive involvement in addition to (through visual stimuli enhanced) affective involvement.

In conclusion, there is no single factor to influence (app) usage intention. However, taken all influential factors for this specific problem together, some factors are more apparent in the current used strategy than others. When looking at these current methods, there lies opportunity for Quantoz especially in incorporating more factors that influence affective involvement. Especially the use of role models and or in relatable visual stimuli is advised, to build positive associations between SC (app usage) and trust and privacy. Usage of repeated simple visual stimuli is encouraged to enhance perceived familiarity with SC or the concerning brand or company.

References

- Bhattacharjee, A., & Sanford, C. (2006). Influence processes for information technology acceptance: An elaboration likelihood model. *MIS quarterly*, 805-825.
- Coch, L., & French Jr, J. R. (1948). Overcoming resistance to change. *Human relations*, 1(4), 512-532.
- Festinger, L. (1954). A theory of social comparison processes. *Human relations*, 7(2), 117-140.
- Ha, H. Y., & Perks, H. (2005). Effects of consumer perceptions of brand experience on the web: Brand familiarity, satisfaction and brand trust. *Journal of Consumer Behaviour: An International Research Review*, 4(6), 438-452.
- Kang, J. Y. M., Mun, J. M., & Johnson, K. K. (2015). In-store mobile usage: Downloading and usage intention toward mobile location-based retail apps. *Computers in Human Behavior*, 46, 210-217.
- Malär, L., Krohmer, H., Hoyer, W. D., & Nyffenegger, B. (2011). Emotional brand attachment and brand personality: The relative importance of the actual and the ideal self. *Journal of marketing*, 75(4), 35-52.
- Torelli, C. J., Özsomer, A., Carvalho, S. W., Keh, H. T., & Maehle, N. (2012). Brand concepts as representations of human values: do cultural congruity and compatibility between values matter?. *Journal of Marketing*, 76(4), 92-108.