**Assessment of privacy by the meaning structure method in Mashhad social housing, Iran**

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**Abstract**

While providing the means for measuring the Privacy Regulation, this article tries to find out its processual and functional aspects in a dialectical investigation. 180 samples were selected by random sampling from mothers of families in Mashhad, Iran. In this study "meaning structure" method has been applied. Samples participated in Laddering Interview. Analyzing these were set in Content-Goal Table. Based on this table, the initial questionnaire was designed, and after being finalized was implemented. 8 factors were obtained by factor analysis in data. Considering the compression variance, in the intended population houses, these factors account for 87 percent of the hidden regulation of meaning structure in the privacy achievement and function processes. In general, we can conclude that these means have proper validity and reliability, and they can be properly used for studying "privacy" in the intended society housing. It is suggested to analyze the relationships among the privacy factors in order to present the regulation model of privacy aspects.

Key words: achievement process; function of privacy; housing; meaning structure; privacy regulation

**1- Introduction**

Privacy is thought to be among the concepts related to the scope of interpersonal relations that is under great attention and emphasis in providing the safety and comfort. Social norms stated very clearly that one's privacy is one's Own right and no one should intervene in it without one's permission (Rahim, 2014; Belk and Sobh, 2011). privacy is the most comprehensive of rights, and the right most valued by civilized men (Gallagher, 2015) In most definitions, privacy has been referred to as a dialectal process of arranging the relationships with others, and it is thought to have a multi-dimension nature (e.g. Simmel, 1971; Witte, 2003; Lang, 2011; Rapoport, 1977; Murray, 1976; Proshansky, 1970; Bosch et al., 2016; Motamed, 2016). Altman (2003) has known this dialectal process as the creator of balance between two opposite forces, that is, being available for others and simultaneously being far from them. He states that at any time the intensity of these forces is different. Hence, privacy is not only being far from the others but also achieving more interactions with others (Witte, 2003). Therefore we should consider this dialectal, multidimensional nature in studying and measuring this concept.

There have been plenty of researches in this field which can be grouped into two categories: investigating the privacy achievement process and investigating its function. Studies on privacy achieving process have been done in two fields: in the 1st field, achieving the privacy is surveyed via environmental processes (e.g. Brower S. & Taylor R.B, 1985; Weigel-Garrey et al., 1998; Georgiou, 2006; Greenwood, 2004; Othman et al., 2014). By considering this hypothesis that environment can be supplier of privacy, in a research about privacy of disabled children, Weigel-Garrey et al. (1998) investigated the concepts related to environment and in fact space boundaries. They found privacy as the only controller of the individuals' physical interactions via boundaries, and they imagined supply of personal independence as the only purpose for it. In this research the method for measuring the privacy is performing the closed interviews. To investigate "privacy" Georgiou (2006) uses a morphological approach, by surveying 6 cases of residential plane, analyzes the spatial configuration of these planes in two phases. In fact, his research is only indicator of privacy in physical boundaries of a house cells. By analyzing the different cells of a house, Greenwood (2004) investigates the possibility of communication control in modern houses, and he sees this communication control related to features of intercellular boundaries. In researches concerning the morphology of planes (e.g. Georgiou, 2006; Greenwood, 2004), Graph Analysis method or investigation of space connection in the form of cells generating the house was noticed. Othman et al. (2014) to investigate privacy of three case studies of Muslim households in a single suburb of Brisbane, in addition to examining the plan's shape and the relationship between spatial cells of the house, arrange a semi-structured face-to-face interviews that asked privacy of one sell as public or private.

Since privacy is a mechanism controlling the relations, we cannot study it separated from the behaviors of individuals; hence in the 2nd field, researchers have paid great heed to individuals' behaviors in the process of privacy achievement. Pedersen (1979) studied privacy as a feature of behavioral mechanism. In this research certain activities in some specific occasions have been depicted for the respondent, and their preference in this regard is asked. Witte (2003) thinks of privacy as a process of adjusting the interpersonal behavioral boundaries, and based on that he introduces the strategies for adjusting the boundaries in a supportive environment of privacy. While pointing to both behavioral and environmental variables in privacy supply, McKinney (1998) has excluded them from his studies by keeping the environmental variables as fixed, and has only surveyed the behavioral variables in privacy.

The 2nd category, researches on functions of privacy can be divided into theoretical and research studies. In theoretical studies, Altman (2003) believes in 3 major functions for privacy: a person's ability in determining the limitations and boundaries around themselves, controlling (surveillance over) the interpersonal action, introspection and personal identity. Schwartz (1968) knows the function of privacy as organizing the position of individuals in interactions. Westin proposes personal independence, reduction of excitement, self-assessment, and limitation/protection of communications as the functions of privacy (Westin, 1968).

In researches on meaning of housing, Privacy itself has been referred to as a function (e.g. Coolen, 2008; Labbéet al., 2017). Rubinstein (1989) grouped the meanings of housing into object-based, society-based, and –individual-based process. He put privacy in the last group. In the study done by Oswald et al. (2005) privacy is related to the affective aspect of housing meaning. Coolen (2006) mentions privacy supply as an explicit function. In these researches privacy has been referred to solely as a functional concept in meaning regulation of housing, and its different aspects were not clarified. The only found research which clearly dealt with studying the functional aspects of privacy, was Pedersen's research (1979). He presents a questionnaire consisted of items providing privacy. These items entirely associate to the individuals' preferences about their residence surrounding. By doing factor analysis over privacy functions, he entitles factors such as: affability, intimacy with friends, seclusion, loneliness, intimacy with family, and anonymity. Being formed as a series of limited and obvious questions, this research visualizes some priorities for an individual; hence, privacy meaning is induced to the individual through them, but these questions are not related to its behavioral aspects.

Although there have been plenty of attempts concerning the aspects of privacy, theoretical findings indicate just a list of privacy concept, and the link among its elements has not been noted. Additionally, research findings either represent the process of achieving the environmental/behavioral privacy, or refer to the exploration of privacy function. However, based on the definitions and theoretical studies, dialectical survey of privacy in housing is undeniable necessity, and it is imperative to investigate the environmental/behavioral achievement process of privacy simultaneously by considering its function.

Therefore, on one hand, shortage of dialectical approaches in studying the aspects of privacy necessitates the investigation of its multi-aspects in the same time. On the other hand, those behavioral/environmental means which have been effective in measuring the privacy process, are inadequate against its functional nature, and the semantic functional means have not dealt with the extension and spread of the meaning of privacy aspects. So it is indispensable to provide adequate means to survey both functional and processual aspects of privacy achievement. Providing the means for measuring the privacy regulation, in this paper we intend to explore its processual/functional aspects in a dialectical survey. To gain these purposes, this research is looking forward to replying the following questions:

\*What are the processual/functional aspects of privacy?

\*How are the means for measuring the privacy regulation made?

\*How do we analyze the items of means?

\*Which are the evidences for the validity and reliability of the means?

**2-Method**

In this research "meaning structure" method was applied. Since in this kind of method the functions of features and consequences of behaviors are realistically checked from the viewpoints of individuals. Meaning rises from features, behaviors, and abilities that form the meaning of housing in a series of relationships together (e.g. Pieters et al. 1999; Zinas & Jusan, 2012; Brito & Formoso, 2014; Miron et al., 2015, Coolen, 2002; Heathcote, 2012; Coolen et al., 2011; nourtaghani et al., 2016; Soilemezi et al., 2017). Considering these features, this method can cover the functional/processual nature of privacy in a multi-lateral investigation.

In this method, the "Means-End" model specifies how individuals select the environmental/behavioral choices. In this model, the selected choices of people are attributed to their basic values and goals. Here, in behavior, it is supposed that values have important role in leading the choice patterns. Behaviors of people have consequences and they learn about the consequence of each action (Gutman 1982, Grunbaum, 2017; Garling & Friman, 2001; Zinas & Jusan, 2012; Coolen 2011.2012.2015). Individuals select the choice containing the desired consequence, and values which were assessed as positive or negative, are linked to consequences of the choices. To achieve the desired consequence, a specific choice should be selected (Coolen & Hoekstra, 2001; Zachariah & Jusan, 2011; Klinger et al., 2013). Therefore, based on the model, privacy achievement will be the consequence of selecting the certain behaviors/features of individuals in housing, and the consequences of this behavior selection or environmental features are the provision of values Razali & Talib (2013) found that social interaction and behavioral norms are important aspects in regulating the privacy in the families (Razali, N. H. M., & Talib, A., 2013). Place features can reduce anxiety, provide consistency, privacy, control and security (Korpela, 2012; Chen, Dwyer, & Firth; 2011; Anton and Lawrence, 2016). Quality aspects in a dwelling refer to the general characteristics that the consumer values in a home, such as roominess, material and artisan quality, amenities, and energy efficiency (Thogersen, 2016). These values are the functions of privacy which are implicit in semantic/meaning level. The analysis shown in figure 1, in fact, is a developed model of semantic structure which can be called privacy regulation model.

Consequence

Features

Value

Having Private Space

Freedom in Personal Behavior

Having Many Rooms

Meaning Structure Model

Explicit Function

Features

Implicit Function

Means-End model

Privacy Achievement Process

Privacy Regulation Model

Privacy Function

Behavior/Features

Fig. 1.

Means-End Model, Meaning Structure Model, and Privacy Regulation Model

In contrast with fixed triple classification of meaning by Rapoport, Coolen's meaning structure model, viewing flexibly, presents the grouping of values and consequence as well as hierarchical structural relations. But simply presenting a hierarchical relation does not account for the goals of this research. To obtain this, after identifying the functional/processual aspects of privacy, it is needed to explore these variables with the help of factor analysis in order to simplify the complicated set of data, to identify the underlying variables, and to extract the network relations among them.

Therefore, this study is a qualitative-quantitative type of research. The necessity of providing the means led the researchers to gather the data from Content Analysis method. Initially, the selected samples responded the Laddering Interview of Means-End and Closed Interview in two stages. Analyzing the interviews was done by content analysis method. Its results were adjusted in content-goal table. Then, based on this table the initial questionnaire was designed and after being finalized was administered, and afterwards the implicit regulation of meaning structure in privacy function and achievement process was extracted with the help of factor analysis.

**2-1- Population, samples, and sampling method**

Statistical population was the residents of Mehr Housing Scheme in Binalood, Mashhad, Iran, and samples were selected randomly from mothers of families. To estimate the sample size, Kline's equation (2005) was used. In this equation, "n" is the number of items in the questionnaire, and "N" is the sample size.

N=2.5\*n

The questionnaire provided by the help of content-goal table has 72 items. So, based on the above equation, the number of the samples is 180. Due to the possible experimental mortality, in this research, 200 subjects were selected as the samples. After administering the interviews, the questionnaires were studied, and finally 183 questionnaires were specified as adequate for analysis.

**2-2- Research means**

In this research the means were: Means-End deep laddering interview, closed interview, self-made questionnaire of privacy meaning structure. The interview and questionnaire making processes are as the following: Adapted from Coolen's meaning structure model (Coolen, 2006 and 2008), 10 chain interviews of Means-End were done. The diagram for the chain is shown in figure 2.

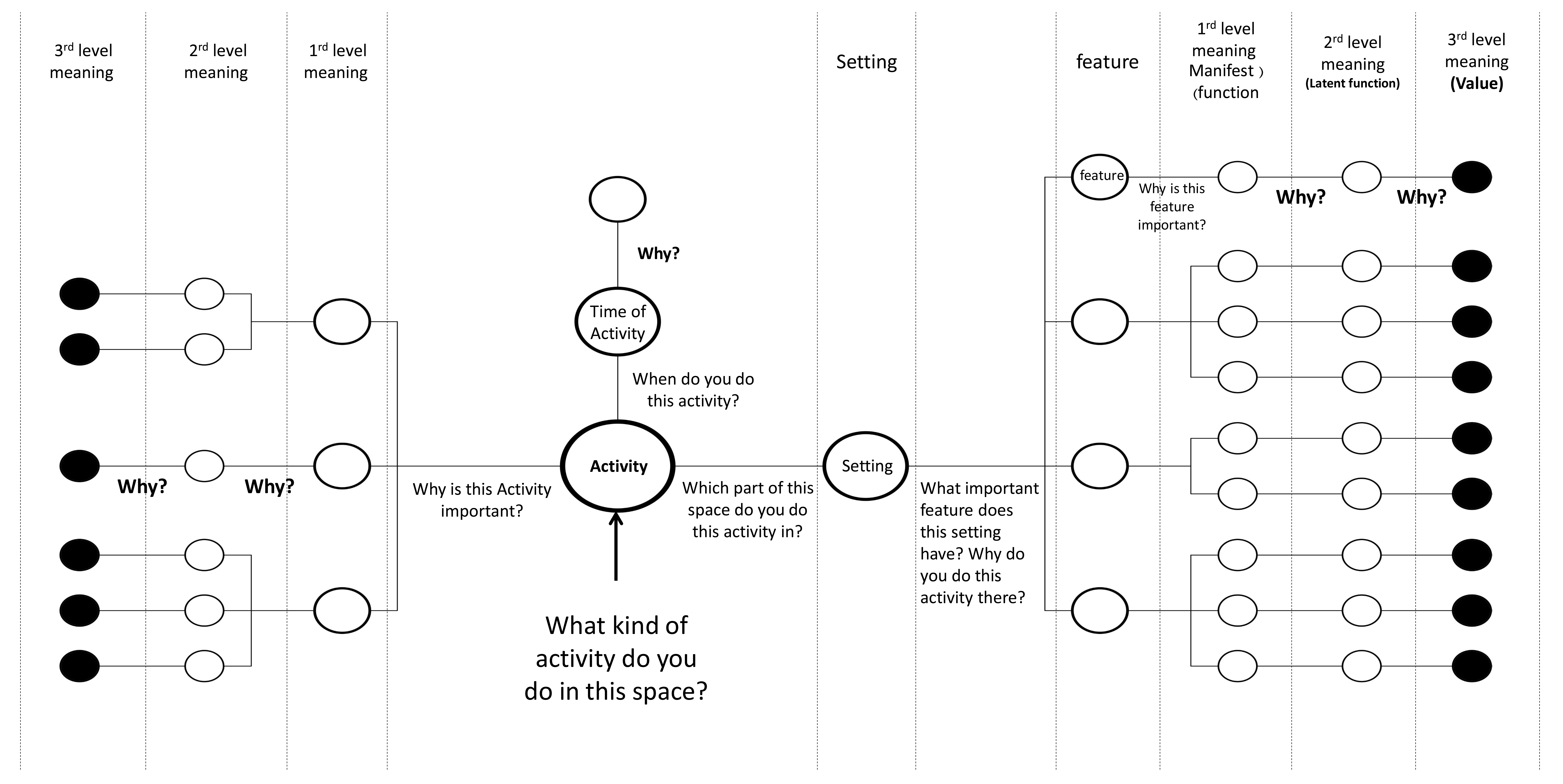


Fig.2.

Process of doing the interview.

The script of performed interviews, which were transcribed from recorded audio files, were encoded (Neuman, 2011). The output of these encodings was providing the content-goal table for each of the 10 interviews. To gain the validity, other 4 experts carried out the operations of encoding and providing the content-goal table separately. In the end, the encodings were compared, and in a meeting attended by all related researchers, the differences were discussed and settled. As it was expected in researches like this (e.g. Coolen 2006), the interviewees could respond the "why questions" in the 2nd level of meaning, that is, implicit functions. Hence, the higher level meanings (values) were not assessed, and this part was completed using the Schwartz's value system table (2006). Finally, not to lose the data and to generalize the information to statistical population, the content-goal tables was integrated into a table without paying attention to frequency.

By investigating the meanings of middle level (implicit functions) in the integrated table and research model of privacy, the meanings associated to privacy were specified. For each identified line of integrated table, its correspondent question was designed. To assess the validity of the questionnaire and to analyze its items, pilot experiment was done for 30 selected samples. Conduction was done in 2 stages of referring: Initially, closed interviews were performed in order to identify activities and features; and in the next referring, considering the activities done in each sample and by providing the certain questionnaire, interviews were performed. Since by doing this the number of questions was decreased, it could increase the precision of replies and decrease the errors.

To increase the precision of the means and to increase the reliability coefficient of questionnaire, the weak questions were modified. This was done by surveying the discrimination index of the items, acceptance constant, and Loop method. After modifying the weak questions, the coefficient of reinsurance in the questions was determined by SPSS.V.22 Software and by specifying the Cronbach α. According to Table 1, the reinsurance coefficient of the remained questions was 0.888. Since the standard Cronbach α in the output is over 0.7, consequently, we can understand the high validity of the questionnaire, and as a result we can introduce the findings obtained from it as acceptable scientific concepts.

Table 1.

Coefficient of reassurance.

|  |  |
| --- | --- |
| Number of Questions | Cronbach α |
| 72 | 0.888 |

The questionnaire was organized in 3 sections. The first section includes questions about demographic features of residents for controlling the family life span, generation gap, and economic differences. The second section has been adjusted in the form of two tables: In the first one, the name of rooms are written based on their names, and the second table which is a list of activities asks for the base in which activities were done. In this section, perception of the house configuration in the eyes of the residents as well as the way these activities are distributed in the frames are defined. The third section of the questionnaire is the major part of the questions that assesses, indeed, the individuals' ideas and insights about the goals and contents of the codified meaning structure. The questions are the closed questions, and based on Likert scale1 (in 4 scales) were adjusted (the middle scale was omitted because of controlling the errors).

**3-Results**

**3-1-Descriptive Analysis of Data**

The majority of questionnaire respondents (family mothers) were housewives (91.5 %). 25 percent of them were uneducated, and altogether, 77 percent of them had finished guidance school or less than that, and only 3 percent had university degree in bachelor level. 40 percent of the mothers were under the age of 50, and 60 percent were over 50. The individuals under the age of 40 were only 14.5% of the subjects. Considering the household aspect, five-people families had the highest frequency (i.e. 37.4%), and those living alone had the lowest frequency. 7.8 percent of the subjects were couples in love, and 91 percent of respondents were active couples. 30 percent of the participants have houses with the area of 75 square meters, 57 percent have 85 square meters houses, 9 percent have 90 square meters houses, and 0.6 percent have 100 square meters houses. In other words, 90 percent of the individuals have houses with the area of 85 square meters or less than that.

**3-2-Data Inferential Analysis**

To determine the adequacy of selected sample size in this study we used KMO test and Kerot Bartlett test, and the results are shown in Table 2. The minimum acceptable value for KMO which is indicating the adequate number of selected sample size is 0.6; hence, the obtained value of 0.676 for KMO shows that sample size is adequate for the analysis.

Table 2.

KMO test and Kerot Bartlett test

|  |  |  |
| --- | --- | --- |
| Criteria for sampling precision | | 0.676 |
| Kerot Bartlett test | Approximate Chi-square | 13582.307 |
| Degree of Freedom | 1378 |
| P-value | P<0.001 |

According to Table 2, in Bartlett test, zero hypothesis is denied at the reliability level of 95 percent, because of the value of chi-square which is 13582/307 and degree of freedom which is 1378. Therefore, the questions of the questionnaire have adequate and meaningful correlation, and we are allowed to use the factor analysis method. To continue the task and determine the factors, we specify the factor loading of the components. According to what we have in Scree Plot, from the factor 19 on, eigenvalues are less than 1. So, as it is clear in Table 3, 19 factors enter the circle of factors. To identify the ultimate effective factors in the research, we have to survey the Scree Plot diagram, too. The diagram indicates that the number of proper factors for spinning is 12, and after spinning, these 12 factors will have steadier factor loading. Therefore, factors 3, 9, 15, 16, 17, 18, 19 were omitted.

Table 3.

Total Specified Variance after/before spinning

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| after spinning | | | before spinning | | | **Factors** | |
| percentage of cumulative variance | percentage of variance | **sum** | percentage of cumulative variance | percentage of variance | **sum** |
| 11.114 | 11.114 | 8.002 | 17.566 | 17.566 | 12.648 | f1 | 1 |
| 21.939 | 10.825 | 7.794 | 28.417 | 10.851 | 7.813 | f2 | 2 |
| 32.617 | 10.678 | 7.688 | 36.460 | 8.043 | 5.791 | f3 | - |
| 38.317 | 5.700 | 4.104 | 43.739 | 7.278 | 5.241 | f4 | 3 |
| 43.970 | 5.653 | 4.070 | 49.517 | 5.778 | 4.160 | f5 | 4 |
| 48.459 | 4.489 | 3.232 | 54.455 | 4.938 | 3.555 | f6 | 5 |
| 52.817 | 4.358 | 3.137 | 58.509 | 4.054 | 2.919 | f7 | 6 |
| 57.115 | 4.298 | 3.095 | 62.335 | 3.826 | 2.755 | f8 | 7 |
| 60.643 | 3.528 | 2.540 | 65.818 | 3.484 | 2.508 | f9 | - |
| 64.103 | 3.460 | 2.491 | 68.955 | 3.137 | 2.258 | f10 | 8 |
| 67.139 | 3.036 | 2.186 | 71.565 | 2.610 | 1.879 | f11 | 9 |
| 70.096 | 2.957 | 2.129 | 74.008 | 2.442 | 1.758 | f12 | 10 |
| 73.050 | 2.954 | 2.127 | 76.308 | 2.300 | 1.656 | f13 | 11 |
| 75.998 | 2.948 | 2.123 | 78.530 | 2.223 | 1.600 | f14 | 12 |
| 78.721 | 2.722 | 1.960 | 80.443 | 1.913 | 1.377 | f15 | - |
| 80.946 | 2.226 | 1.603 | 82.205 | 1.762 | 1.269 | f16 | - |
| 83.114 | 2.168 | 1.561 | 83.900 | 1.695 | 1.220 | f17 | - |
| 85.105 | 1.991 | 1.434 | 85.541 | 1.642 | 1.182 | f18 | - |
| 87.096 | 1.990 | 1.433 | 87.096 | 1.554 | 1.119 | f19 | - |

Factor 11 has two items, and factors 7, 8, 10 were deleted due to not having meaningful relationship among the items. Finally, 8 major factor were identified.

Table 4.

Matrix of 8 derived factors after spinning

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Eighth factor | | Seventh factor | | Sixth factor | | Fifth factor | | Fourth factor | | Third factor | | Second factor | | First factor | |
| Factor loading | Item | Factor loading | Item | Factor loading | Item | Factor loading | Item | Factor loading | Item | Factor loading | **Item** | Factor loading | Item | Factor loading | Item |
| 0.28 | F9 | 0.46 | J2 | 0.45 | U8 | 0.50 | A13 | 0.50 | A16 | -0.72 | C1 | 0.83 | L1 | 0.71 | I1 |
| 0.35 | T24 | 0.49 | J12 | 0.54 | U11 | 0.65 | A22 | 0.50 | A17 | -0.72 | C2 | 0.83 | L4 | 0.71 | I2 |
| 0.39 | T28 | 0.41 | G14 | 0.55 | G15 | 0.65 | A23 | 0.26 | A43 | -0.72 | C3 | 0.83 | L5 | 0.71 | I6 |
| 0.25 | Y12 | 0.44 | G16 |  |  | 0.56 | X16 | -0.42 | K19 |  |  | 0.82 | L6 | 0.72 | I7 |
|  |  |  |  |  |  |  |  | -0.44 | K20 |  |  | 0.83 | L10 | 0.58 | I16 |
|  |  |  |  |  |  |  |  | 0.45 | W11 |  |  | 0.82 | L12 | 0.71 | I20 |
|  |  |  |  |  |  |  |  | 0.49 | W14 |  |  | 0.51 | L17 | 0.70 | I22 |
|  |  |  |  |  |  |  |  | 0.49 | W23 |  |  | 0.81 | L25 | 0.49 | I26 |
|  |  |  |  |  |  |  |  | 0.50 | W24 |  |  |  |  | 0.50 | I28 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.50 | I30 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.66 | X24 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.72 | X25 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.72 | X28 |

**3-3-labeling**

The questions of the questionnaire were designed based on the asked meanings in open interviews. In fact, each question involves one line of the table which is proportionate to privacy concept in bilateral aspects of it as it is seen in figure 3, the questions of privacy meaning structure are divided into two groups of activity meaning and feature meaning.

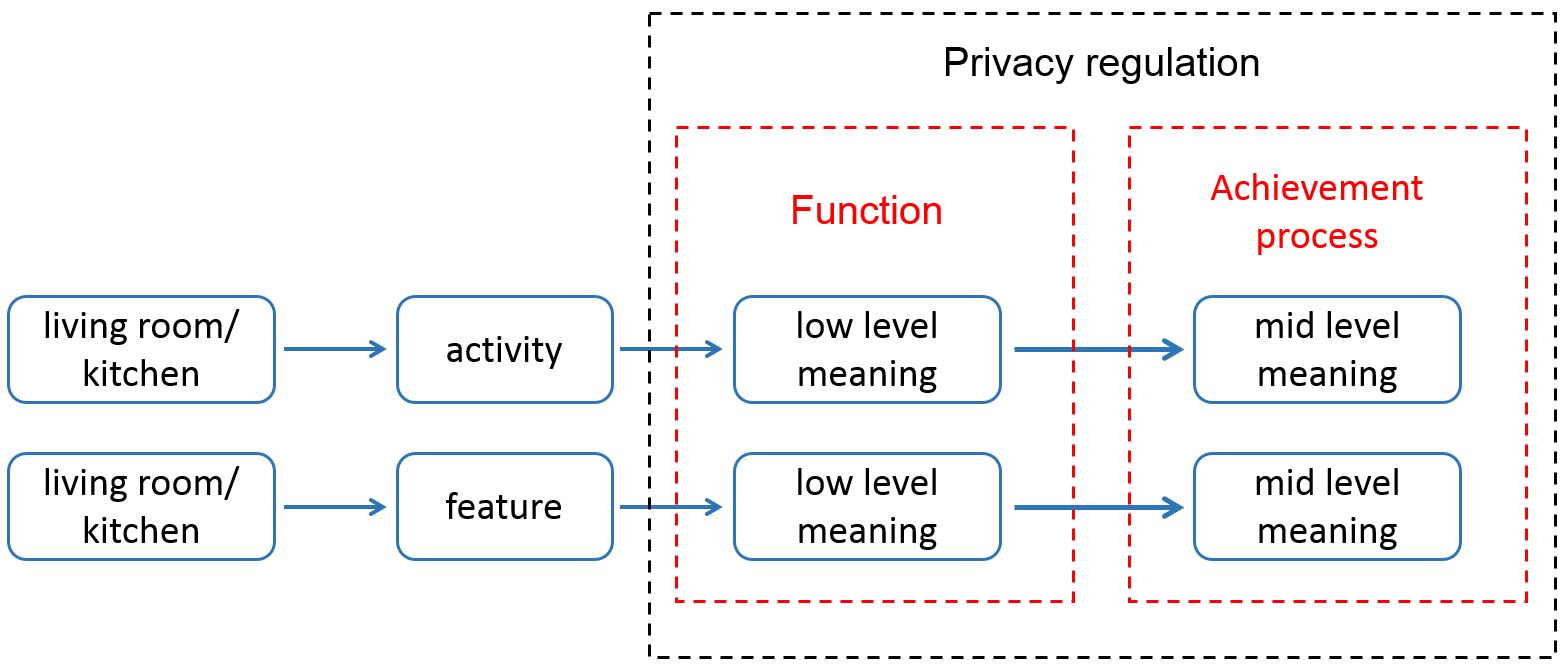


Fig. 3.

The structure of privacy meaning regulation concerning.

By looking at the items in each factor we can offer a definition and title for it. The selection of titles has been done by having the processual/functional aspects of privacy which are shown in figure 3. Moreover, the field studies concerning the privacy have been the theoretical support to define the factors. In order to survey and guarantee the validity of selected titles, they were sent to 3 experts, their ideas and hints were noted, and necessary modifications were implemented. Table 3 presents factors, items, and proposed titles.

Table 5.

List of questions related to the 8 factors, and proposed titles for each.

|  |  |  |
| --- | --- | --- |
|  | | proposed title |
| questions | Q. code |
| Reception of intimate guests makes me talk & interact with them, and this makes me happy | I1 | First factor: success in social interactions |
| Reception of intimate guests makes us get together, and this subject makes me safe and confident | I2 |
| By serving the intimate guests I feel close to them, and this strengthens our friendship | I6 |
| In serving the intimate guests they can help me in my works, and this causes better results | I7 |
| When the place of serving the guests is spacy, all of us can sit close together, and this can strengthens our sincerity | I16 |
| When the place of serving the guests is adjacent to kitchen, I can talk with them and do my works simultaneously, and this makes me glad and pleased | I20 |
| When the place of serving the guests is adjacent to kitchen, my guests can help me, and this can be joyful and fun | I22 |
| When the place of serving the guests is separated from the living room, the guests cannot have direct eye contact with us, and this keeps our privacy | I26 |
| When the place of serving the guests has a visual prevention, we do not have aural/visual contact with other spaces, and this thing keeps our privacy | I28 |
| When the place of serving the guests has a visual prevention, we do not get others into trouble. So, this shows our attention to others' welfare and comfort | I30 |
| When the place of serving the guests is separated from other spaces, voice and vision cannot be transferred to the rooms, and others cannot be bothered | X24 |
| When the place of serving the guests is separated from other spaces, voice and vision cannot be transferred to the rooms, and the privacy in other rooms is kept | X25 |
| When the place of serving the guests is spacy, there will be enough space for all to sit, and this leads to our sincerity | X28 |
| By having a company with my wife, we talk to each other, and this strengthens our relationships and interactions | L1 | Second factor: providing the stability and consistency of family |
| Having a company with my wife is a time for being together, and this creates affection and meaning in our life | L4 |
| Having a company with my wife is an opportunity for fun and joking, and this creates sincerity and friendship between us | L5 |
| By being a company for my wife I feel close together, and this feeling gives me confidence and reliability | L6 |
| When the place of having a company with my wife is adjacent to my workplace, I can be with her, and this creates sense of belonging in me | L10 |
| When the place of having a company with my wife is adjacent to my workplace, she can help me in doing my work, and this strengthens our relationships and interactions | L12 |
| When the place of having a company with my wife is adjacent to the living room, I can have control over my kid, and this causes my confidence and sense of safety | L17 |
| When the place of having a company with my wife is separated from other spaces, we do not have audio contact with rooms, so our privacy is kept | L25 |
| By eating with family, I feel close together, and this causes my sense of belonging to home and family | C1 | Third factor: sense of family belonging |
| Eating with family gets us together, and this creates sincerity and friendship among us | C2 |
| By eating with family, we spend time with each other, and this strengthens the interest and affection among us | C3 |
| When the place for preparing the food is adjacent to living room, it is likely to have audio contact, and this makes me happy | A16 | Fourth factor: Physical Features in family gathering |
| When the place for preparing the food is adjacent to living room, I have control over the living room, and this makes me more confident | A17 |
| When the place for preparing the food overlooks the entrance, I can control the entrance door, and this makes me more confident | A43 |
| When the place for making dessert etc. is not visible, others cannot monitor my works, and I feel more comfortable | K19 |
| When the place for making dessert etc. is not visible, others cannot monitor my works, and my privacy is kept | K20 |
| When the place for eating afternoon snack is adjacent to the kitchen, I can talk and have contact with others in living room from the kitchen | W11 |
| When the place for eating the afternoon snack is adjacent to the TV, all family members watch TV together, and this creates coherence in family | W14 |
| When the place for eating the afternoon snack is spacy, there is space for anybody to sit, and this creates sincerity among us | W23 |
| When the place for eating the afternoon snack is spacy, we can be together, and find the sense of belonging to family | W24 |
| When the place for preparing the food is not visible from the living room, nobody can see me, and I have more freedom | A13 | Fifth factor: Freedom in personal behaviors |
| When the place for preparing the food is separate from other spaces, others cannot control my works, and this creates my freedom and independence | A22 |
| When the place for preparing the food is separate from other spaces, in the parties the guests cannot control what I do, and this keeps my privacy | A23 |
| When the place of serving the guests is not visible from the kitchen, the guests cannot see the kitchen directly, so our privacy is kept | X16 |
| when the study room is adjacent to the kitchen, the kids can have contact with me, and this causes their peace and trust | U8 | Sixth factor: personal satisfaction |
| when study room is adjacent to living space, the kids can study and at the same time they are with the family, and this creates sense of belonging in them | U11 |
| - When the place for keeping the vases is adjacent to workplaces of the kitchen, dad can be next to me, and this creates interaction and sincerity among us | G15 |
| Sitting and having tea in the kitchen is an opportunity to think of my own affairs and to be satisfied with me | J2 | Seventh factor: self-assessment |
| When the place for having tea is adjacent to the living space, I can have control over my kid's playing, and this causes protection of his/her safety, and my own confidence | J12 |
| When the place for keeping the vases is adjacent to workplaces of kitchen, my dad can be next to me, and this creates our sincerity and interaction | G14 |
| When the place for keeping the vases is separated from other spaces of the house, I do not have aural/visual contact with other spaces, and so I can think and make decisions | G16 |
| When my father's workplace is adjacent to my workplace, it is possible for us to talk and consult, and this causes our senses of belonging to family | F9 | Eighth factor: family safety |
| When the place for watching TV has proper furniture, we can lie down, and this makes us comfortable and convenient | T24 |
| When the place of watching TV is adjacent to the entrance, I can control any exit and enter. This makes me safe and confident | T28 |
| When the place for sewing and knitting is adjacent to the living room, I can be in the family and interact with my family members | Y12 |

**4-Discussion**

The aim of this work was to provide the means for measuring the Privacy Regulation, and also tried to find out its processual and functional aspects in a dialectical investigation. Factors of privacy meaning structure are derived from the link in activities and the features of bases and their meanings for the residents. To explore these factors, factor analysis was used. The results of factor analysis (table 3) showed that after spinning the cumulative variance is 87 percent. Here the point is that by the help of self-made means we can specify 87 percent of the variance related to privacy meaning structure which is in the housing of the desired society, and by the help of the 8 obtained factors, 46.64 percent of it can be specified. These privacy meaning factors are explained.

*Success in social interactions*: this factor has had the highest variance, and 11.1 percent of privacy meaning structure variance is specified with this factor. As it is clear from Table 4, this factor has the highest number in the number of the effective items. This point indicates that in understanding the factor, the respondents had the highest level of unanimity. This factor has been dealt with serving place and serving the guests. By referring to privacy aspects, we can specify the position of this meaning structure in the matrix of figure 2. In behavioral aspect, it is referred by terms such as "starting the interaction and talk", "being together", and "talking". It is a verbal relation type, and considering the environmental aspect, it is a type of an adjacency privacy.

While being semantically structured, this factor includes a set of activities concerning the relationship with the guests and serving them. This indicates the social aspect of family and their interactions. If we look at what we know under the title of "guests' privacy" by referring to Schwartz meaning system, we will reach a concept like Hedonism. This concept can directly show itself in the connotative meanings of words such as "mirth", "confidence", "strengthening the relationships and friendship", and "sincerity increase".

Additionally, there are other items that act in line with achieving hedonism. Concepts like "respect to privacy of others", and "attention to comfort and convenience of others" are the elements of hedonism meaning structure for other people. In fact, the objectives specified for privacy, and the functions that individuals have unanimity in their fulfillment, are all the concepts in line with the achievement of success in life. Therefore, this title has been selected for this factor.

*Providing the family consistency and stability*: Variance of this factor is 0.11. 11 percent of variance in housing privacy meaning structure is specified by this factor. Paying enough heed to the content of the items in this factor, we find out that the important point about these items is the relationship of parents with each other. It is the concept that has been referred to as company and talking with a spouse, adjacent to the workplaces in the kitchen. The important point here is that the base of these activities is in the kitchen. Hence, in addition to the usual activities imagined for a kitchen, it is a place for fulfilling the meaning of parents' relations, and this can make the family basis stable.

Good relations of parents which is introduced by definitions like "strengthening the relations and interactions", "creation of affection and meaning in life", strengthening the friendship and sincerity among parents", "sense of belonging", cooperation between mother and father", is an issue that in its content, support and stability of parents' relations take place. This matter will lead to stability and consistency of a family. The functional system of privacy has audio/video environmental achieving process. In its behavioral achieving process, considering the definitions of asked items, there are verbal/non-verbal behavioral relations.

*Sense of family belonging*: This factor has the variance of 0.57, and 5.7 percent of housing meaning structure variance is specified by this factor. Items of this factor contain meanings such as "being together", "getting together", sense of belonging", "sense of sincerity and friendship", "support of affection and interest" for the action of eating food. This activity is an opportunity for family gatherings which is creator of sense of family belonging. This activity happens in the kitchen space, and is fulfilling the thing that is referred to as family privacy. Being together and getting together are considered as non-verbal relation which is formed by being next to each other and being environmentally adjacent to family members.

*Physical features in the family gatherings*: This factor has the variance of 0.056, and specifies 5.6 percent of privacy meaning structure variance. More than any other issues, this factor points to the relations of different behavioral bases in supplying the privacy. Items of this factor have connotative meanings of features which include descriptions like "audio relation ability", "dominance", "ability of door control", "not controlling by others", "getting together by all members of family", and focus on this meaning that the features of bases are effective when family members are together. This factor is resulted from a set of activities like preparing the food, desserts, and candies in the kitchen as well as eating afternoon snack and watching TV in the living room. The result of the activity in the feature performed is achieving both possibility of relation and avoiding it, and this is introduced with visual obstacle and inability in seeing. The goal of this process is creation of desired relation among family members that provide a proper ground for collective actions of family members by keeping the privacy of individuals. Behavioral aspects of this meaning structure include non-verbal relations such as seeing and having control. Concerning the environmental aspect of privacy, since it deals with the meaning of physical features of bases, it includes all environmental, audio, visual, and adjacent aspects in itself.

*Freedom in personal behaviors*: This factor has the variance of 0.049, and specifies 4.9 percent of privacy meaning structure variance. It is introduced in activities of preparing the food and serving the guests. Compared to other factors, this one focuses mostly on lack of relation. It is a theme that manifests in expressions like "having visual obstacle", "separated from other spaces", "not having a direct view". Its ultimate goal is: providing freedom and personal independence with keeping the privacy of individuals. The result of fulfilling this meaning system is supporting the personal freedom in doing the activities without any bother from unwanted relations. Beside the semantic aspect of freedom in personal behaviors, there is an environmental aspect of the controlling factor of non-verbal relations, and its environmental aspect is represented in visual controls.

Personal satisfaction: this factor has the variance of 0.03, and specifies 3 percent of privacy meaning structure variance. In the items of this factor there are activities all of which are carried out by a person other than the mother of family. In fact, activities have been presented such that by doing them connected to others, a function of privacy is fulfilled. An activity like children's studying in a place adjacent to mother or to family members, will have an accomplishment such as peace, confidence, and sense of belonging for them. Hence, the meaning obtained from all activities of this factor can be considered as personal satisfaction. It is an issue that is presented as a basic meaning of non-verbal behaviors and adjacency from environmental aspects of privacy.

*Self-assessment*: This factor has the variance of 0.03, and specifies 3 percent of privacy meaning structure variance. Self-assessment is also used in Westin's functional system (1968) for privacy. This function is one of most important objectives of privacy that following the assessment of current situation of a person, provides the grounds for the person to plan for the future to reach the goals of life and to have personal flourishing. This factor is formed by set of personal activities like sitting, having tea in the kitchen, or checking the vases, and all things that need spending time for the person. In fact, the above-mentioned activities for this factor, are representations of being alone, and thinking alone. The next goal which can be said about these behavioral representations is the possibility of thinking deeply about ourselves and making decisions. The final goal of this structured meaning is the possibility of planning for future proportionate to abilities obtained from self-assessment, in line with reaching self-flourishing and personal capability. Items of self-assessment meaning factor consist of non-verbal behaviors which happen in environmental surroundings.

*Family safety*: The 8th factor which has the variance of 0.03 specifies 3 percent of privacy meaning structure variance. Items of this factor, more than other concepts, points to the issue of safety and being relaxed. This meaning set consists of activities that show the possibility of talking, consulting, and physical controls in their contents. The ultimate goal of these meanings or the higher level of meaning can be known as family safety. This meaning set contains verbal relation aspect in adjacency environmental aspect. This factor consists of set of family activities ranging from talking and consulting among parents to activities occurring in certain bases with the need to control the entrance. Parents' consultations pave the way for them to plan the general issues of the family in long term periods, and after that family success, achieving higher social positions, and thinking about the future of the kids are obtained, and support of future and family safety are resulted. Apart from this higher level meaning of safety, being in a place that monitoring the door and controlling it are provided makes the family more confident and safe.

**5-Conclusion**

The factors resulted from the carried out studies include multi-dimensional nature of privacy. It means that the processual/functional aspects of privacy have been assessed simultaneously. Concerning each factor, behavioral aspects and environmental aspects of privacy which form the achievement process, next to functional aspects, its meaning has been presented. This view toward privacy is in line with the dialectical nature of it.

Being consistent with previous researches (e.g. Witte, 2003; Motamed, 2016; Weigel-Garrey et al. 1998; Bosch et al., 2016; Georgiou, 2006; Greenwood, 2004; Othman et al, 2014), concerning the processual/functional aspects of privacy, the findings of this study identified other factors, too. Considering the presented definitions, factor of *success in social interactions* is equal with factors of Pedersen's *sincerity in friends' relations* (Pedersen, 1997) and Westin's *protection of relations* (Westin, 1968; Kammourieh et al., 2017). Factor of "freedom in action" is consistent with factors of Pedersen's *loneliness* and Westin's *personal independence*. Factor of *personal satisfaction* is consistent with Altman's *introspection* (Altman, 2003). Factor of *self-assessment* is consistent with factors of Altman's *identity* and Westin's *self-examining*. Factor of *sense of family belonging* is consistent with factor of Pedersen's *sincere with family*. Factors of *support of stability and consistency of family*, *physical features in family gathering*, and *family safety* are factors that were identified in this study, and it is needed to survey these aspects in another society and different types of housing.

Altogether, we can conclude that these means have adequate validity and reliability, and they can be used for the study of processual/functional aspects of privacy in a proper way. This study has been done in limited number of housing spaces, and it is needed to be done simultaneously in other spaces. It is proposed that the analysis of relations among privacy factors is done to present a regulation model of privacy aspects.

Note:

1. Likert Scale, a collection of closed questions: a reply with necessary assessment with 5 choices of: *strongly agree*, *agree*, *no idea*, *disagree*, *strongly* *disagree*. In this test because the choice *no idea* does not assess anything, so it was omitted.

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