A confirmatory factor analysis of university students’ high-context and low-context communication

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Abstract

This study aimed to examine the framework of Edward Hall’s high-context and low-context distinction in communication, which is one of the most widely used methods for comparing different cultures in terms of communication styles of individuals who are currently students. Choosing the survey as the data collection method, a questionnaire was prepared and applied to university students. Two hundred and eighteen people participated in the survey and 162 surveys were accepted. In the study, the relationships between communication types and demographic characteristics were also examined. It was found that these characteristics did not create significant differences in the types of communication. First-level confirmatory factor analysis (CFA) was applied to the data obtained through structural equation modelling (SEM). According to the results obtained by confirmatory factor analysis, communication in a high context (Y) factor has eight observed variables. There are seven observed variables of communication in a low context (D) factor.

Keywords: Communication, high-context communication, low-context communication, structural equation modelling (SEM);

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1. Introduction

It is very important how individuals communicate with their managers, whom they encounter in their business lives, and how individuals communicate with their subordinates when they are managers themselves. Hall (1976) examined this issue in communication with a high-context and low-context distinction. A summary of the literature on this topic is given below.

According to the study of Hall (1976), Izgüden and Erdem (2017), while developing the high-context and low-context models, explained the cultural differences and from there went on to explain the high-context and low-context distinction. Hall (1976) stated in his study that, in cultures that he defined as high-context, the message was not given directly and explicitly and that it was expected to be provided by making inferences from what the other person said. In cultures that he defined as low-context, he stated that all the information that was to be transmitted was in the message and that the message was direct and clear.

According to Erdem (2006), in a Turkish society with a high socialistic tendency, a high-context type of communication is more preferred than a low-context type of communication. Some of the proverbs that are indicative of the tendency to give indirect messages in communication belonging to Turkish culture are as follows: the age you say is skin, it goes wherever you pull; the word is silver, the silence is gold; my daughter I’m telling you, my daughter-in-law you understand (Erdem & Günlü, 2006).

Studies by Izgüden and Erdem (2017) and Kim, Pan, and Park (1998) revealed that high-context communication is more common in China and Korea, and low-context communication is more common in America. In a study conducted by Nishimura, Nevgi, and Tella (2008), it was emphasised that Japan and Finland are closer to the high-context communication type and India is closer to the low-context communication type, although they have some high-context characteristics. Hall (1976) noted that China, Japan, and other Far Eastern countries are examples of the high-context type of communication, and America is one of the examples of a low-context type of communication. Proceeding from this, it can be said that the cultural structures of countries are reflected in their communication, which can lead to differences.

According to Owen, Hodgson, and Gazzard (2011), one of the most important elements of developing leadership is communication, and in this context, freely developing participation at all levels by eliminating all obstacles to communication is important. Literal communication, including formal groups, informal groups, from team to team, from section to section, between teams, between departments, the institution and from the employee to the correct realisation of the institution, ensures effective communication with boundaries and constant equal participation by hanging (Ercan & Ozer, 2020).

In Ökeli’s (2014) study, according to Hall (1990), the person who leads a group may also reflect status differences by the tone of voice. However, in public life, it should be noted that status and hierarchy (officer–petty officer–private, employer–employee relationships or respect for people older than themselves) are possible to observe as to how it is reflected in behaviour patterns in subordinate–parent relationship.

1.1. Literature review

1.1.1. Types of communication

In the literature, there are a lot of definitions related to communication and its types. Himstreet and Baty (1969), Eren (2000) and Erdoğan (2000) have mentioned that communication is a transfer process in their studies. This process is where information, ideas, feelings and thoughts are transmitted between
individuals with the help of symbols and technical means that provide the possibility of receiving oral or written news.

According to Munter (1987), some features indicate the complexity of this process and its multidimensionality. They are as follows:

- Conscious–unconscious state;
- The ability of the recipient and the source to give different meanings;
- Incorporating body language;
- Aimed at the sense organs;
- Bidirectional;
- Environmental impact.

Communication, as defined by Dökmen (2005), is a process that occurs when individuals reveal information and/or various symbols and transfer them to each other, also including the perception and interpretation of this transmitted information and symbols. It is an obligatory tool among people for civility in the life of people who are social beings living in communities. This process may vary from individual to individual, from environment to environment and from culture to culture (Tunçer, 2012). Based on this, Erdem and Günlü (2006) stated in their studies that the ways of communication of individuals in a society can differ in the cultural context.

Dozier, Husted, and McMahon (1998) defined the word context in their study as ‘a concept related to the environment and conditions that cover assumptions about the values of other individuals, the use of intonation and emphasis in expression, the message containing knowledge and experience’. Hall (1990), on the other hand, expressed the concept of context as ‘the meaning of an event and the knowledge covering that event’.

Göktaş (2015), in his thesis, stated that one of the most commonly used methods when comparing different cultures in the study of types of communication is Hall and Hall’s (1987) high-context and low-context distinction. In terms of types of communication, cultures are considered as two sides of a linear plane, one of which is the high context and the other is the low context (Erdem & Günlü, 2006; Göktaş, 2015; Hall & Hall, 1987).

Hall (1976) and Dozier et al.’s (1998) studies revealed that there may be differences in the communication of individuals in different cultures. Thus, the cultural structure of society discussed the effect of communication types on high-context and low-context communication and described a model. Hall (1976), Kim et al. (1998) and Börü (2007), in their studies, on the type of high-context communication, regarding what the individual wants to say, the feelings and thoughts of the other person, the circumstances etc., considering their impact, stated that they expressed it indirectly and implicitly, while in the low-context type of communication, the individual preferred to be direct and clear.

Hall (1976), in his study, stated that freedom of expression has been adopted in the United States, based on the fact that a culture is established in which an individual has a high freedom of expression. An individual in the United States, under the influence of culture, prefers to express what he wants to say directly, without thinking about the feelings of others. In Izguden and Erdem’s (2017) study in Turkey, individuals, often in indirect ways of communication, due to the use of allusions and even as a person emphasised, care more about what people think when communicating. In summary, while high-context communication type is common in cultures where socialistic approaches are intense, the low-
context communication type is more preferred in cultures where individualist approaches are intense (Hall, 1976; İzgüden & Erdem, 2017).

However, according to other studies, the communication type in China and Korea is high concurrently, low in America, concurrently high in Japan and Finland, and high and low concurrently in India, with high-context characteristics that is closer to the low-context type of communication.

1.2. Purpose of the study

The study aims to examine the high-context and low-context communication perceptions of the students studying at the university in terms of the managers they will encounter in their work lives or their situation when they are managers themselves.

2. Material and method

2.1. Data collection instrument

Choosing the survey method for data collection, the study prepared questions regarding the type of communication the participants will incorporate into their usual communication and their perception of managers or administrators. For questions about the survey used in communication, a study titled Leadership and Communication Styles Expected from Political Leaders: A Research on Generation Y, and Hall and Hall’s (1987) undeveloped high-context and low-context cultural communication trends in communication measured the scale model rendered in Turkish (Kio-type). Erdem’s (2006) Measuring Communication Tendency with High–Low Context Discrimination: A Turkish Scale Development Study was used to measure low-context discrimination. Based on this, eight questions related to the high-context communication type and seven questions related to the low-context communication type were included in the survey.

2.2. Participants

Two hundred and eighteen people participated in the survey and 162 surveys were accepted. The data in question were obtained from an online survey of students studying in different departments of the Faculty of Economic and Administrative Sciences of Eskişehir Osmangazi University. The demographic characteristics are gender, age, university studied, department studied and income level. The types of communication were high-context and low-context communication.

Of the students who answered the questionnaire, 53.1% were male and 46.9% were female; 53.1% were below the age of 22 and 46.9% were above the age of 23. Of these individuals, 4.3% are studying in the Department of Economics; 10.5% are studying in the Department of Finance, 77.8% are studying in the Department of Business Administration and the remaining 7.4% are studying in other departments.

2.3. Analysis

In the analysis of data, SPSS 21 and Lisrel 8.80 licensed package programmes were used. In the study, structural equation modelling, which is included in the proposed model for testing research hypotheses and is often used to model causal relationships between factors (variables), was used to test the research hypotheses (Barrir, 2019; Yilmaz & Çelik, 2009).

BAIT is a multivariate statistical analysis, the emergence of which dates back to the 1970s. It has been used by most researchers in sociology, psychology, political science, education and marketing research Until the 1960s, factor analysis was the most widely used method in social and behavioural sciences to decipher the relationships between latent variables. But this method is insufficient in terms of explaining the causal relationships. Mutual and causal relationships are possible only by calculating the correlation regressions between variables represented by linear functions. For this purpose, a FEED
has been developed for solving linear functions (Golob, 2003; Semiz & Yilmaz, 2019). Structural equation modelling is a statistical technique used to define causality and relationality between observed and unobserved variables (Gürbüz, 2020; Gürbüz & Yilmaz, 2016).

In the study, before the confirmatory factor analysis, in which the ‘types of communication’ were considered, hypotheses were defined for the demographic characteristics and types of communication of the respondents of the questionnaire.

2.4. The proposed research model and hypotheses for the types of communication

The research model used in the study was developed by Demirgüneş and Avciar (2014) and De Noni, Orsi, and Zanderighi (2014). This is the model proposed by Demirgüneş and Avciar (2014) in their study and is shown in Figure 1.

![Research model for communication types](image)

Figure 1. A research model for communication types

The relationships of the demographic characteristics of the individuals who answered the questionnaire and whose demographic characteristics are indicated by their ideas about the types of communication are examined and summarised with tables.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{11} ): The average of students’ high-context communication differs according to gender.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{21} ): The high-context communication averages of the students differ from each other according to their age groups.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{31} ): Students’ high-context communication averages differ from each other according to the department they are studying in.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{41} ): Students’ high-context communication averages differ from each other according to their income level.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_{12} ): The average of students’ low-context communication differs according to gender.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{22} ): The average low-context communication of the students differs from each other according to their age groups.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{32} ): Students’ low-context communication averages differ from each other according to the department in which they study.</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_{42} ): Students’ low-context communication averages differ from each other according to their income level.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

\[
H_{ij} = \begin{cases} 
1, \text{demographic characteristics; } i = 1 (gender), 2 (age), 3 (department of education), 4 (income level) \\
i, \text{types of communication; } j = 1 (high-context communication), 2 (low-context communication) 
\end{cases}
\]

3. Results
The relationships of the demographic characteristics of the individuals who answered the questionnaire with their ideas about the types of communication were examined and appropriate tests were carried out. $H_{11}$ obtained $t = 1.098$ and $p = 0.274$; $H_{21}$ obtained $F = 0.673$ and $p = 0.413$; $H_{31}$ obtained $F = 0.635$ and $p = 0.594$; $H_{41}$ obtained $F = 0.413$ and $p = 0.662$; $H_{22}$ obtained $t = 1.600$ and $p = 0.111$; $H_{32}$ obtained $F = 1.258$ and $p = 0.664$; $H_{32}$ obtained $F = 0.555$ and $p = 0.645$; and $H_{42}$ obtained $F = 0.803$ and $p = 0.450$. Based on this, since $p > 0.05$ for all hypotheses, all hypotheses are rejected. Accordingly, the average communication types of the individuals who answered the questionnaire did not differ from each other in their demographic characteristics.

In the research model shown in Figure 1, the high-context communication type and the low-context communication type were defined as independent unobserved variables. The relationships between the observed variables of the communication types in the model were investigated with the first-level decfa, and the relationship between the unobserved variables defined as communication and the communication types was investigated with the second-level decfa.

### Table 3. Hypotheses established based on the research model shown in Figure 1

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$:</td>
<td>High-context communication is a decimation of ‘communication’ and there is a meaningful relationship between them.</td>
</tr>
<tr>
<td>$H_2$:</td>
<td>Low-context communication is a decimation of ‘communication’ and there is a significant relationship between them.</td>
</tr>
</tbody>
</table>

### 3.1. Confirmatory factor analysis (CFA)

CFA is a natural extension of explanatory factor analysis (EFA). Deci is a type of structural equation modelling that has an important place in scale adaptation studies, which serves to determine the relationship between observed and unobserved variables. According to Yılmaz and Celik (2009), Doğan (2013) and Ari, Oğuz, and Yılmaz (2019), EFA aims to try to discover the model consisting of the underlying set of variables and the number of undetermined factors, and that of CFA is to statistically test the significance of the model formed by a decidable number of factors. In other words, CFA is used to check whether the data obtained confirm the proposed model. Marsh & Balla (1994), Brown (2006) and Doğan (2013), in common with their studies, tried to reconstruct the observed relationships between indicators with a small number of parameters, estimates and the differences between EFA and decfa, in general, in decfa, in particular. The results obtained in the CFA on the types of communication are summarised and shown in Figures 2 and 3.

Figure 2 shows the model in which all observed variables are connected to hidden variables in high-context ($Y$) and low-context ($D$) communication.
Figure 2. CFA findings – 1

The results in Figure 3 were obtained in the programme that was run by subtracting four observed variables with factor loads lower than 0.50.

Figure 3. CFA findings – 2

The evaluation of the compliance values of the model obtained after the first CFA in terms of the standard compliance criterion, which is widely used in the literature, is included in Table 4 (Çelik & Yılmaz, 2016). Accordingly, ‘$\chi^2/SD$’ is a good fit for the proposed model, and the values of ‘RMSEA’, ‘NFI’, ‘CFI’, ‘GFI’ and ‘AGFI’ are also acceptable fits.

Table 4. The compliance values of the model

<table>
<thead>
<tr>
<th>Compliance measures</th>
<th>Good fit</th>
<th>Acceptable compliance</th>
<th>Model</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>$0 &lt; \text{RMSEA} &lt; 0.05$</td>
<td>$0.05 &lt; \text{RMSEA} &lt; 0.08$</td>
<td>0.079</td>
<td>Acceptable compliance</td>
</tr>
<tr>
<td>$\chi^2/SD$</td>
<td>$0 \leq \chi^2/SD &lt; 2$</td>
<td>$2 \leq \chi^2/SD &lt; 3$</td>
<td>1.9763</td>
<td>Good fit</td>
</tr>
<tr>
<td>CFI</td>
<td>$0.97 &lt; \text{CFI} &lt; 1.00$</td>
<td>$0.95 &lt; \text{CFI} &lt; 0.97$</td>
<td>0.96</td>
<td>Acceptable compliance</td>
</tr>
</tbody>
</table>
The factor loads of the model obtained in Figure 3 are $t$-values and $R^2$ values as in Table 5.

Table 5. DFA analysis values for high-context and low-context communication

<table>
<thead>
<tr>
<th>Factors / Survey questions</th>
<th>Standard loads</th>
<th>$t$-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor Y: High-context communication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YBi3.A: In our society, our people prefer implicit expression rather than direct speech.</td>
<td>0.72</td>
<td>10.02</td>
<td>0.51</td>
</tr>
<tr>
<td>YBi4.A: There is talk about people around us other than their faces and other than their backs.</td>
<td>0.77</td>
<td>11.04</td>
<td>0.59</td>
</tr>
<tr>
<td>YBi5.A: In communication, the method ‘my daughter I'm telling you, my daughter-in-law you understand’ is used.</td>
<td>0.80</td>
<td>11.71</td>
<td>0.64</td>
</tr>
<tr>
<td>YBi6.A: People avoid saying their criticisms directly.</td>
<td>0.71</td>
<td>9.89</td>
<td>0.50</td>
</tr>
<tr>
<td>YBi7.A: Subordinates avoid openly criticising their managers.</td>
<td>0.71</td>
<td>9.97</td>
<td>0.51</td>
</tr>
<tr>
<td>YBi8.A: What people say to their faces and what they hide from them are different.</td>
<td>0.79</td>
<td>11.47</td>
<td>0.62</td>
</tr>
</tbody>
</table>

| **Factor D: Low-Context Communication** | | | |
| DBi1.D: It is always positive to be open when communicating in our society. | 0.61 | 7.91 | 0.37 |
| DBi2.D: Our people use unambiguous statements in their messages. | 0.81 | 11.39 | 0.66 |
| DBi3.D: Instead of talking behind people's backs, everything is said to their faces. | 0.69 | 9.20 | 0.48 |
| DBi4.D: There is no need for other factors other than what people say to understand the message. | 0.59 | 7.50 | 0.34 |
| DBi6.D: Our people express their criticism clearly and directly in every environment. | 0.73 | 9.96 | 0.54 |

Hypotheses

<table>
<thead>
<tr>
<th>Situation</th>
<th>Y</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Contact number Y</td>
<td>Not supported</td>
<td></td>
</tr>
<tr>
<td>H2: Contact information D</td>
<td>Not supported</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 5, while all the $R^2$ values of the data belonging to the high-context communication type are greater than 0.50, it is observed that the disclosure power of the $R^2$ values is less in the low-context communication type. In this case, it seems that the individuals who answered the questionnaire preferred the high-context communication type more. The second level of CFA was applied to carry out the research model shown in Figure 1, but the hypotheses put forward were not supported.

4. Discussion

Based on the values obtained in the study, the ‘communication in a high context (Y)’ factor has eight observed variables, and the highest factor load was ‘YBi5: In communication, the method ‘my daughter I'm telling you, my daughter-in-law you understand is used’, with a value of 0.80. There are seven observed variables for the ‘communication in a low context (D)’ factor. Of these, the highest factor load is ‘DBi2: Our people use unambiguous statements in their messages’, with a value of 0.81.
The findings of this study are similar to the findings of previous research. In the studies of Hall (1976) and Izgüden and Erdem (2017), it has been stated that the type of high-context communication is widespread in cultures where the socialistic approach is intense. According to the results obtained by Tüfekçi and Tüfekçi (2013), as a result of their research, communication processes in universities are oriented toward traditional culture.

5. Conclusion

A high-context type of communication is preferred in universities with high socialistic tendencies. For this reason, instead of openness and direct transmission in communication, it seems that giving indirect and implied messages is culturally encouraged. Students who have chosen the indirect transfer path cannot fully transfer what they think to others. This can cause the message to have different meanings, depending on the people and the environment.

According to the results of this study, the university students who participated in the survey use the high-context communication type more widely. But the formation of clear and direct transmission in communication processes is of great importance from the point of view of communication interaction. Proceeding from this, to adapt from traditional cultures to modern cultures, more effort should be spent by universities on all the influences that make up the traditional culture.

References


