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Implementation of Factor Analysis for Identifying Cultural Differences in Personal Selling

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Abstract

This study aims to explore intercultural and gender customer differences in Czechia regarding their perceptions of verbal and nonverbal personality traits of salespeople during personal sales interactions. By examining these differences, the research provides valuable insights for scholars and practitioners into cultural and gender-specific factors critical for designing effective interpersonal sales strategies.

An experimental design was employed. The collected data were analyzed using factor analysis and hypothesis testing. The findings suggest that salesperson authenticity and personal interaction factors significantly influence sales success in Czechia. Additionally, gender-based variations were identified in customer receptivity.

The research primarily focused on automotive retail sales scenarios and it a follow-up of series of previous research in this domain, but the results offer broader applicability to similar market contexts, contributing to the understanding of effective personal sales techniques across cultures and genders.

Key words:

Sales process, authenticity, personal sales factors, factor analysis.

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1. Introduction

This study focuses on the role of personal interaction factors and how they shape salesperson's authenticity perceptions in the Czechia. According to Kernis (2003), authenticity is described as "the unobstructed operation of one's true, or core, self in one's daily enterprise". Such perceptions of authenticity can partly mediate the effectiveness and success of personal interactions. Fundamentally, previous studies have highlighted the positive impact of authentic leadership on employee performance and overall organizational success (Algera and Lips-Wiersma, 2012; Diddams and Chang, 2012; Avolio and Gardner, 2005; Avolio et al., 2004; Neider and Schriesheim, 2011; Rego et al., 2011; Tate, 2009; Walumbwa et al., 2010). Nevertheless, the concept of authenticity in interpersonal contexts, particularly in sales, remains underexplored. To address this gap, the present research investigates authenticity as a crucial element in interpersonal sales interactions.

The paper opens with a review of existing literature on culture and authenticity. Next, it introduces the study's methodological framework, which is followed by a factor analysis and a presentation of the results. Finally, a future research agenda is presented.

2. Literature Review and Hypotheses Development

The section provides an overview of cultural differences between the Czech Republic and other nations, focusing on communication styles and historical influences. Culture, defined as the collective programming of the mind that distinguishes groups, profoundly affects communication and interpersonal interactions. Sociologists and researchers, such as Hofstede (2011) and Hall (1976, 1990), highlight the impact of cultural contexts, emphasizing the distinction between high-context (implicit) and low-context (explicit) cultures. Additionally, cultural variables like individualism, collectivism, and universalism further differentiate interpersonal behaviors across societies.

Czech cultural norms reflect a history of subordination within non-Czech entities, fostering skepticism toward authority and institutions. Improvisation and indirect communication have been key survival strategies, particularly during the socialist era. Contrarily, individualism and mobility play a lesser role in Czech culture, which is more relationship-oriented.

Authenticity in interpersonal interactions, particularly in sales contexts, involves congruence in emotions, body language, and verbal communication. Freud's framework of authenticity as a balance between emotional, physical, and rational aspects forms the basis of this study's approach. The research examines how Czech and other cultural norms influence perceptions of salesperson authenticity through experimental sales scenarios involving diverse emotional and communicative strategies.

The study utilizes video experiments and observations to analyze how emotional expressions, body language, and spoken content impact perceived authenticity. Results are drawn from business students in Czechia, who shed light on cultural and gender-based differences in evaluating authenticity in sales.

The main factors affecting human interactions are: personal authenticity, discomfort toward understanding of authenticity and gender. A large part of modern sales revolves around direct human contact Borg & Freytag, 2012; Hohenschwert & Geiger, 2015). Therefore, understanding those basic concepts can help to enhance techniques of personal sales. As Freud (1938) mention, personal authenticity is based on the following characteristics: physicals, emotional, and rational. Based on scientific works (Algera, 2012; Avolio, 2005; Avolio at al., 2004; Diddamas, 2012; Nieder, 2011; Walumbwa, 2010). As abovementioned authors point out, well-balanced, genuine people promote a sense of inner stability in those around them, which can lead to improved performance outcomes.

Whereas empirical evidence demonstrates that authenticity contributes to enhanced performance outcomes across multiple domains, the specific influence of authenticity within sales remains largely uninvestigated. To study these effects of authenticity in sales context, the former needs to be operationalized. Bauer (2002) proposed that interpersonal interactions and the resulting authenticity perceptions stem from the senses and emotions of two parties. These "emotional" perceptions are precisely determined by analyzing

1) vocal tone, 2) body language, and 3) words (Mehrabian, 1972). As Damásio (2002) argued that physical gestures, mannerisms, and verbal content all contribute to the interplay between the body and consciousness. The present study thus examines three categories of personal interaction factors [connected to vocal tone (emotional), body language (physical), and words (rational)] to identify the factors and cross-cultural differences that shape perceptions of authenticity in personal selling contexts.

The model explored in this study is based on the well-established process through which consumers form attitudes and perceptions of authenticity. It aligns with Solomon's (2003) ABC hierarchy of consumer behavior and integrates Mehrabian's (1972) work on communication perception as well as Petty and Cacioppo's (1986) elaboration likelihood model of persuasion (ELM). The model proposes that consistent messaging from a salesperson—across affect, behavior, and cognition—positively impacts how customers perceive the salesperson's authenticity. Principally, it proposes that a sales professional who effectively balances emotions, actions, and reasoning will be viewed more favorably overall. In contrast, an inconsistent approach is likely to result in negative judgments (see also Bauer, 2002). In essence, the model indicates that the formation of authentic perceptions in personal sales scenarios depends on emotions (affect), body language (behavior), and verbal content (cognition). This research aims to explore whether these critical personal interaction factors differ across cultures and genders. To assess potential cultural and gender variations between the U.S. and the Czechia, the study evaluated the authenticity factor model depicted in Figure 1. This model highlights the three components—emotional expressions (affect), body language (behavior), and spoken words (cognition)—that shape perceptions of a salesperson's authenticity.

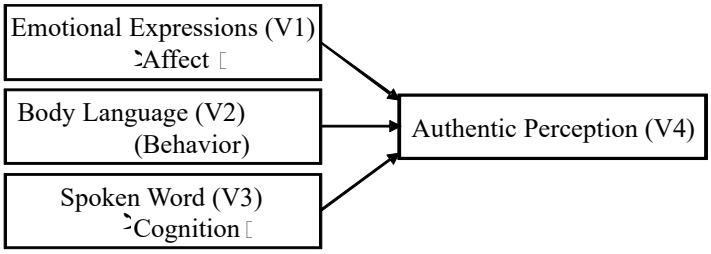


Fig. 1. Authenticity Factor Model
Source: Authors, 2024

3. Methodology

3.1. Methodological Framework

The current study employs exploratory factor analysis (EFA) to examine the populations in the Czechia. Factor analysis is a multivariate statistical method widely used in applied marketing research and is grounded in three primary objectives: data reduction, instrument development, and trait identification (Ivanov, 2018). There are two main types of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Jöreskog, 1969). EFA is heuristic in nature, focusing on the systematic simplification of interrelated measures and exploring potential underlying factor structures within a set of observed variables without imposing any preconceived structure on the results (Child, 1990). In contrast, CFA is used to test pre-established theories or models and falls within the realm of structural equation modeling, utilizing a priori assumptions about the number and nature of factors to validate a proposed framework.

Since this study did not impose prior constraints on the number or nature of the factors to be identified, EFA was the appropriate method. As noted by Huck (2012), researchers conducting EFA typically have limited initial expectations but rely on specific information, such as the instruments used to measure variables, the characteristics of participants, related findings from prior research, and theoretical hypotheses. This study utilized EFA to achieve the following goals:

1. Identify the number of factors underlying a set of variables,
2. Explain the variation among variables using a reduced number of newly created latent variables

or factors (data condensation),

3. Define the meaning or content of the identified factors.

Meloun and Melitky (2006) outline five key steps in conducting EFA:

1. *Descriptive Statistics.*

A comprehensive review of the variables was conducted to assess their appropriateness for inclusion in the analysis. This process emphasized examining central tendencies, such as means, and measures of dispersion, such as SD, to identify potential anomalies or irregularities. Additionally, the communality of each variable was analyzed. Communality is a key metric in factor analysis, reflecting the proportion of a variable's variance that can be explained by the extracted factors. High communality values suggest that a variable is well represented within the factor structure, enhancing the robustness of the analysis. Conversely, variables with low communalities may warrant reconsideration or exclusion to optimize model integrity.

2. *Correlation Matrix.*

The correlation matrix served as a foundational tool to evaluate the interrelationships among variables, providing insight into the overall coherence of the dataset. To determine the suitability of the data for factor analysis, Bartlett's test of sphericity was applied. This statistical test examines whether the correlation matrix significantly differs from an identity matrix, which would indicate no intercorrelation among variables. A significant result ($p < 0.05$) confirms that factor analysis is appropriate. Furthermore, the matrix was reviewed to ensure that the majority of correlations exceeded the threshold of 0.30, as this is a widely accepted criterion for proceeding with the analysis. Correlations below this level may indicate weak relationships, potentially undermining the factor extraction process.

3. *Factor Selection.*

The selection of factors was guided by eigenvalues and cumulative variance percentages. Factors with eigenvalues greater than 1.0 were retained, as per Kaiser's criterion, indicating that each factor explains a variance equal to or greater than that of a single variable. Additionally, the cumulative percentage of explained variance was considered, with a focus on achieving an optimal balance between parsimony and explanatory power. This ensures that the retained factors collectively account for a substantial proportion of the total variance while avoiding overfitting the model.

4. *Factor Weights.*

For each retained factor, loadings were calculated to determine the strength and direction of the relationship between individual variables and their corresponding factors. These loadings provide critical insights into the underlying structure of the data, enabling the identification of variables that contribute most significantly to each factor. Factor weights, derived from these loadings, quantify the relative contribution of each variable to the factor, thereby facilitating a more nuanced and multi-faceted interpretation of the results.

5. *Factor Scores.*

Factor scores were computed for each observation to enable a practical interpretation of the underlying factors. These scores summarize the latent constructs represented by the factors, providing a concise yet comprehensive depiction of the data structure. They serve as a basis for subsequent analyses, such as regression or clustering, where the extracted factors are utilized as composite variables. Factor scores also enable comparisons across observations, highlighting patterns or trends that may be obscured in the raw data.

3.2. Factor analysis

Essentially, the model of factor analysis is motivated by the following argument. Variables are grouped by their correlations. In other words, all variables within a factor are highly correlated among themselves, and are small correlated with variables in another factor (Horn, 1965). X is the random vector has p components, and μ is the mean and $\sum$ is the correlation matrix. The assumption of the factor analysis is, that X is linearly correlated with a few latent variables F1, F2,…Fn, , than p is an additional sources of variation $\varepsilon_1, \varepsilon_2, ...\varepsilon_p$. Based on this, the factor model can be described as:

$$X_1 - \mu_1 = l_{11}F_1 + l_{12}F_2 + ... + l_{1n}F_n + \varepsilon_1$$

$$X_2 - \mu_2 = l_{21}F_1 + l_{22}F_2 + ... + l_{2n}F_n + \varepsilon_2$$
$$X_p - \mu_p = l_{p1}F_1 + l_{p2}F_2 + ... + l_{pn}F_n + \varepsilon_p \quad (1)$$

Than, the matrix notation:

$$\mathbf{X} - \mu = \mathbf{LF} + \varepsilon, \quad (2)$$

where l_{pn} are loadings of the *i*th variable on the *j*th factor, than the matrix **L** is the matrix of the factor loadings. All p deviations are described as $X - \mu$ and expressed in the terms of $F + \varepsilon$. This model has certain covariance relationships. All covariance must be verified (Cattel, 1966).
The covariance verification:

$$E(\mathbf{F}) = 0, Cov(\mathbf{F}) = E\left[\mathbf{FF}'\right] = \mathbf{I} \quad (3)$$

$$E(\varepsilon) = 0, Cov(\varepsilon) = E(\varepsilon\varepsilon') = \boldsymbol{\psi} = \begin{bmatrix} \psi_1 & 0 & ... & 0 \\ 0 & \psi_2 & ... & 0 \\ ... & ... & ... & ... \\ 0 & 0 & ... & \psi_p \end{bmatrix}, \quad (4)$$

Than **F** and ε can be called as independent.
The orthogonal factor model implies a covariance structure is following:

$$(\mathbf{X} - \mu)(\mathbf{X} - \mu)' = (\mathbf{LF} + \varepsilon)(\mathbf{LF} + \varepsilon)' = \mathbf{LF}(\mathbf{LF})' + \varepsilon(\mathbf{LF})' + \mathbf{LF}\varepsilon' + \varepsilon\varepsilon' \quad (5)$$

and, than

$$\sum = Cov(\mathbf{X}) = E(\mathbf{X} - \mu)(\mathbf{X} - \mu)' = \mathbf{LL}' + \boldsymbol{\psi} \quad (6)$$

Than,

$$Cov(\varepsilon, \mathbf{F}) = E(\varepsilon, \mathbf{F}') = 0 \quad (7)$$

Also, can be defied:

$$Cov(\mathbf{X}, \mathbf{F}) = E((\mathbf{X} - \mu)\mathbf{F}') = LE(\mathbf{FF}') + E(\varepsilon\mathbf{F}') = \mathbf{L} \quad (8)$$

Thus, the covariance structure for the factor model can be described as following:

$$Cov(\mathbf{X}) = \mathbf{LL}^t + \boldsymbol{\psi} \quad (9)$$

$$\mathbf{Cov}(X_i, F_j) = l_{ij} \quad (10)$$

The model $\mathbf{X} - \mu = \mathbf{LF} + \varepsilon$ is linearity to the common factors. The second one thing in the factor analysis is communality. The communality can be described as:

$$Var(X_p) = \sigma_{pp} = h_p^2 + \psi_p, \quad (11)$$

and, the communality is:

$$h_p^2 = l_{i1}{}^2 + l_{i2}^2 + ... + l_{iq}^2 \quad (12)$$

3.3. Practical case

Before conducting the factor analysis, were ensured that the sample size was sufficiently large (Hair et al., 1995; Tabachnick and Fidell, 2007) and confirmed the normality of the data distribution (Fabrigar et al., 1999). A correlation matrix was examined to identify correlation coefficients exceeding 0.30 (Tabachnick and Fidell, 2007). Following this evaluation, several variables were excluded from the analysis (Table 1).

Table 1

Excluded variables

Men	Women

Personal Impression	
Stimulated	Stimulated
Excited	Excited
Autonomous	Autonomous
Dominant	Dominant
Influential	Influential
Controlling	Controlling
Agitated	Agitated
Frenzied	Frenzied
Spoken Words	
None	None
Authentic Perception	
He has a high level of self-esteem.	He has a high level of self-esteem. He feels alienated from himself

Source: Authors' Compilation, 2024.

A revised correlation matrix was constructed using only the variables that were retained following the initial evaluation process. This step ensured that the analysis was based solely on variables with significant contributions to the underlying factor structure, enhancing the overall robustness and relevance of the model.

The results of the newly generated matrix are summarized in Tables 2 and 3, which display the pairwise correlations. Importantly, all variables exhibit correlation coefficients exceeding 0.2, indicating meaningful relationships and supporting their inclusion in the subsequent factor analysis. The threshold of 0.2 for correlation coefficients was selected to balance inclusivity with rigor, as values below this level might suggest weak/negligible associations. By focusing on variables with stronger correlations, the revised matrix provides a clearer representation of the interdependence within the dataset and ensures that the retained variables contribute meaningfully to the extracted factors. This refined approach not only validates the quality of the retained variables but also strengthens the interpretability of the results.

Table 2

Correlation Matrix for Men

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17
X1	1.0000	0.2991	0.2516	0.2579	0.3800	0.4197	0.3488	0.4020	0.4823	0.4121	0.4677	0.4422	0.2759	0.4320	0.4491	0.2395	0.2874
X2	0.2991	1.0000	0.6237	0.6313	0.4599	0.3887	0.4276	0.2684	0.2824	0.3488	0.2438	0.2577	0.3214	0.3167	0.2709	0.2402	0.2874
X3	0.2516	0.6237	1.0000	0.6852	0.5638	0.4798	0.4581	0.2487	0.2996	0.3125	0.3010	0.2474	0.3722	0.3448	0.3703	0.2709	0.2874
X4	0.2579	0.6313	0.6852	1.0000	0.5312	0.4907	0.4971	0.2852	0.3082	0.3216	0.2757	0.2480	0.3792	0.4358	0.2625	0.4113	0.2874
X5	0.3800	0.4599	0.5638	0.5312	1.0000	0.4894	0.4765	0.2557	0.2627	0.2998	0.3052	0.3096	0.4763	0.3818	0.3032	0.2769	0.2874
X6	0.4197	0.3887	0.4798	0.4907	0.4894	1.0000	0.4679	0.2849	0.3056	0.3352	0.3523	0.2661	0.3712	0.3837	0.2690	0.3938	0.2874
X7	0.3488	0.4276	0.4581	0.4971	0.4765	0.4679	1.0000	0.3159	0.2816	0.2722	0.2950	0.2523	0.3107	0.3756	0.3215	0.2941	0.2874
X8	0.4020	0.2684	0.2487	0.2852	0.2557	0.2849	0.3159	1.0000	0.5965	0.4690	0.4641	0.4692	0.3799	0.4284	0.3949	0.4057	0.2874
X9	0.4823	0.2824	0.2996	0.3082	0.2627	0.3056	0.2816	0.5965	1.0000	0.5051	0.5050	0.4775	0.3751	0.3802	0.3422	0.4065	0.2874
X10	0.4121	0.3488	0.3125	0.3216	0.2998	0.3352	0.2722	0.4690	0.5051	1.0000	0.5075	0.4479	0.2861	0.3233	0.2232	0.4288	0.2874
X11	0.4677	0.2438	0.3010	0.2757	0.3052	0.3523	0.2950	0.4641	0.5050	0.5075	1.0000	0.4728	0.3150	0.3463	0.2183	0.4227	0.2874
X12	0.4422	0.2577	0.2474	0.2480	0.3096	0.2661	0.2523	0.4692	0.4775	0.4479	0.4728	1.0000	0.4169	0.3389	0.3241	0.3057	0.2874
X13	0.2759	0.3214	0.3722	0.3792	0.4763	0.3712	0.3107	0.3799	0.3751	0.2861	0.3150	0.4169	1.0000	0.3472	0.2779	0.3065	0.2874
X14	0.4320	0.3167	0.3448	0.4358	0.3818	0.3837	0.3756	0.4284	0.3802	0.3233	0.3463	0.3389	0.3472	1.0000	0.2753	0.3288	0.2874
X15	0.4491	0.2709	0.3703	0.2625	0.3032	0.2690	0.3215	0.3949	0.3422	0.2232	0.2183	0.3241	0.2779	0.2753	1.0000	0.3227	0.2874
X16	0.2395	0.2402	0.2709	0.4113	0.2769	0.3938	0.2941	0.4057	0.4065	0.4288	0.4227	0.3057	0.3065	0.3288	0.3227	1.0000	0.2874
X17	0.2874	0.3478	0.2891	0.3554	0.3774	0.3001	0.3800	0.4058	0.4112	0.4114	0.3550	0.3227	0.3222	0.4122	0.4236	0.4412	1.0000

Source: Authors' Compilation, 2024.

Table 3

Correlation Matrix for Women

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16

X1	1.0000	0.3998	0.2331	0.2024	0.2181	0.2089	0.2367	0.2182	0.2164	0.2422	0.2070	0.2727	0.2938	0.2697	0.3476	0.3309
X2	0.3998	1.0000	0.2543	0.2325	0.2654	0.2405	0.2960	0.3808	0.3776	0.3033	0.3318	0.3434	0.3941	0.4120	0.4142	0.4051
X3	0.2331	0.2543	1.0000	0.4165	0.3374	0.9327	0.7289	0.2986	0.7971	0.5234	0.3687	0.8585	0.6906	0.2424	0.5713	0.5957
X4	0.2024	0.2325	0.4165	1.0000	0.5209	0.5829	0.3088	0.5065	0.5707	0.7286	0.7188	0.3611	0.6485	0.4958	0.7666	0.3460
X5	0.2181	0.2654	0.3374	0.5209	1.0000	0.4743	0.2587	0.9575	0.5094	0.5501	0.4953	0.5085	0.4288	0.3239	0.3046	0.4104
X6	0.2089	0.2405	0.9327	0.5829	0.4743	1.0000	0.3790	0.3568	0.7280	0.4849	0.5054	0.4377	0.3227	0.3081	0.3147	0.4084
X7	0.2367	0.2960	0.7289	0.3088	0.2587	0.3790	1.0000	0.2991	0.3516	0.4579	0.2800	0.3197	0.4488	0.3020	0.3482	0.2121
X8	0.2182	0.3808	0.2986	0.5065	0.9575	0.3568	0.2991	1.0000	0.6237	0.6313	0.4599	0.3887	0.4276	0.2684	0.2824	0.3488
X9	0.2164	0.3776	0.7971	0.5707	0.5094	0.7280	0.3516	0.6237	1.0000	0.6852	0.5638	0.4798	0.4581	0.2487	0.2996	0.3125
X10	0.2422	0.3033	0.5234	0.7286	0.5501	0.4849	0.4579	0.6313	0.6852	1.0000	0.5312	0.4907	0.4971	0.2852	0.3082	0.3216
X11	0.2070	0.3318	0.3687	0.7188	0.4953	0.5054	0.2800	0.4599	0.5638	0.5312	1.0000	0.4894	0.4765	0.2557	0.2627	0.2998
X12	0.2727	0.3434	0.8585	0.3611	0.5085	0.4377	0.3197	0.3887	0.4798	0.4907	0.4894	1.0000	0.4679	0.2849	0.3056	0.3352
X13	0.2938	0.3941	0.6906	0.6485	0.4288	0.3227	0.4488	0.4276	0.4581	0.4971	0.4765	0.4679	1.0000	0.3159	0.2816	0.2722
X14	0.2697	0.4120	0.2424	0.4958	0.3239	0.3081	0.3020	0.2684	0.2487	0.2852	0.2557	0.2849	0.3159	1.0000	0.5965	0.4690
X15	0.3476	0.4142	0.5713	0.7666	0.3046	0.3147	0.3482	0.2824	0.2996	0.3082	0.2627	0.3056	0.2816	0.5965	1.0000	0.5051
X16	0.3309	0.4051	0.5957	0.3460	0.4104	0.4084	0.2121	0.3488	0.3125	0.3216	0.2998	0.3352	0.2722	0.4690	0.5051	1.0000

Source: Authors' Compilation, 2024.

The ratio of variable-to-sample within the context of this study was 1:12. According to Kaiser (1970, 1974), the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is typically recommended when the variable-to-sample ratio is less than 1:5. Given the higher ratio of 1:12 in this study, only Bartlett's Test of Sphericity (Bartlett, 1950) was conducted. This test evaluates the null hypothesis that the correlation matrix is an identity matrix, with significance levels below 0.05 indicating suitability for factor analysis. The test was found to be significant (see Table below), confirming that factor analysis is appropriate for the dataset under investigation.

Table 4

Bartlett's test results

Bartlett's test of sphericity for men	App. Chi Square Df Sig.	2101.312 675 0.001
Bartlett's test of sphericity for women	App. Chi Square Df Sig.	1763.987 1434 0.000

Source: Authors' Compilation, 2024.

The goal of data extraction is to reduce a large set of items into a smaller number of factors. To determine these factors, it is advisable to apply multiple decision rules simultaneously (Thompson and Daniel, 1996). Hair et al. (1995) highlight this approach, noting that most factor experts and analysts rely on numerous measures. Commonly used criteria include Kaiser's (Kaiser, 1960) criterion (eigenvalues greater than 1), the Scree test (Cattell, 1966), and the cumulative percentage of variance explained (Horn, 1965). The results are presented below.

Table 5

Eigenvalues for Men

Index	Eigenvalues	Cumulative percentage
1	2.214158	44.88
2	1.798456	84.00
3	1.110230	98.25
4	0.641211	100.00

Source: Authors' Compilation, 2024.

Table 6

Eigenvalues for Women

Index	Eigenvalues	Cumulative percentage
1	4.121011	59.60
2	3.198741	84.72
3	1.100009	98.79
4	0.040474	100.00

Source: Authors' Compilation, 2024.

The analysis of eigenvalues for the datasets labeled "Men" and "Women" revealed that three factors exhibited eigenvalues greater than one. According to Kaiser's criterion, which states that factors with eigenvalues exceeding one should be retained, these results initially suggested the presence of three meaningful factors for each dataset. Additional decision rules were applied to refine the factor retention process.

The cumulative variance explained by the factors was assessed to ensure an adequate representation of the dataset's variability. In this context, it was determined that including a three factor would enhance the explanatory power of the model without introducing excessive complexity. The scree plot was also examined as a supplementary tool, providing visual confirmation of the "elbow" point where the eigenvalues begin to plateau. This analysis supported the retention of four factors for both datasets.

Consequently, it was concluded that the datasets for "Men" and "Women" are best represented by a 3-factor model (Latent Factor 1, 2 & 3). This decision ensures a comprehensive understanding of the underlying constructs while balancing parsimony and interpretability. The inclusion of the three factors (and performing the statistical computations) allows for the capture of additional variance.

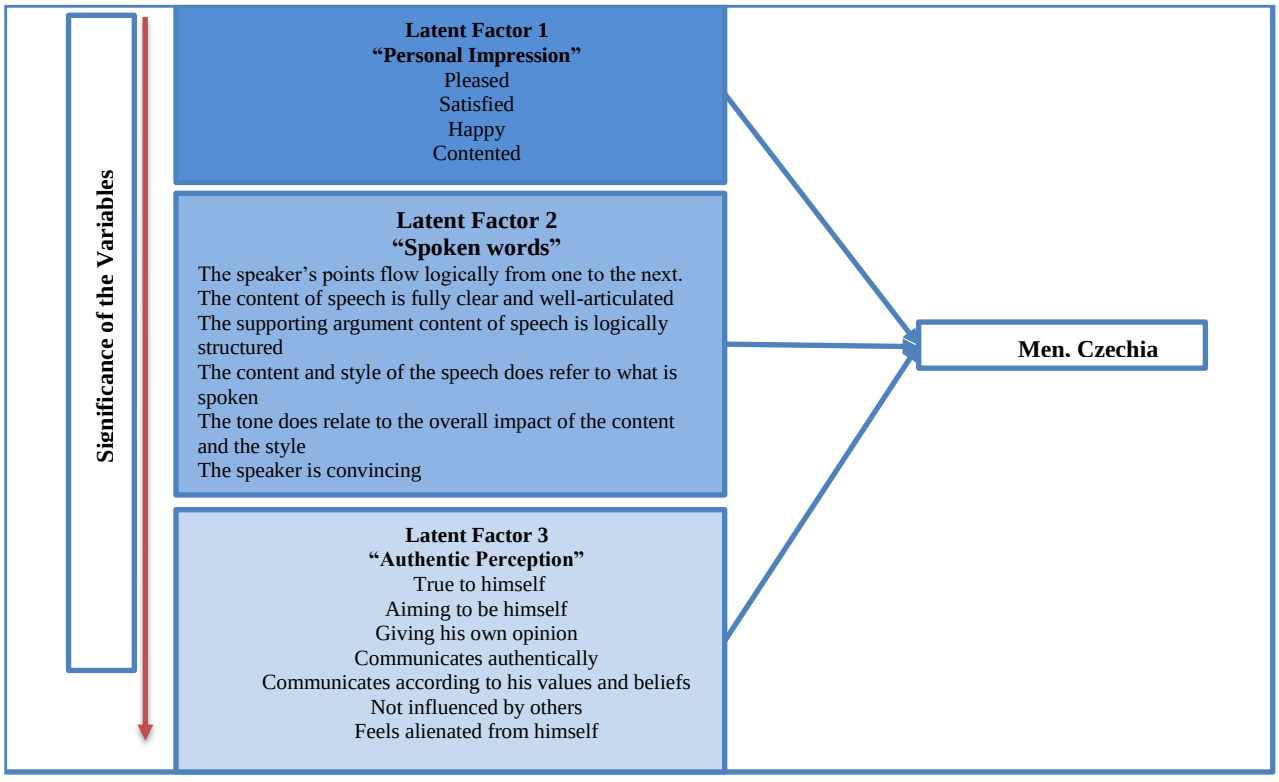


Fig. 2. Results of the Factor Analysis for Men

Source: Authors, 2024

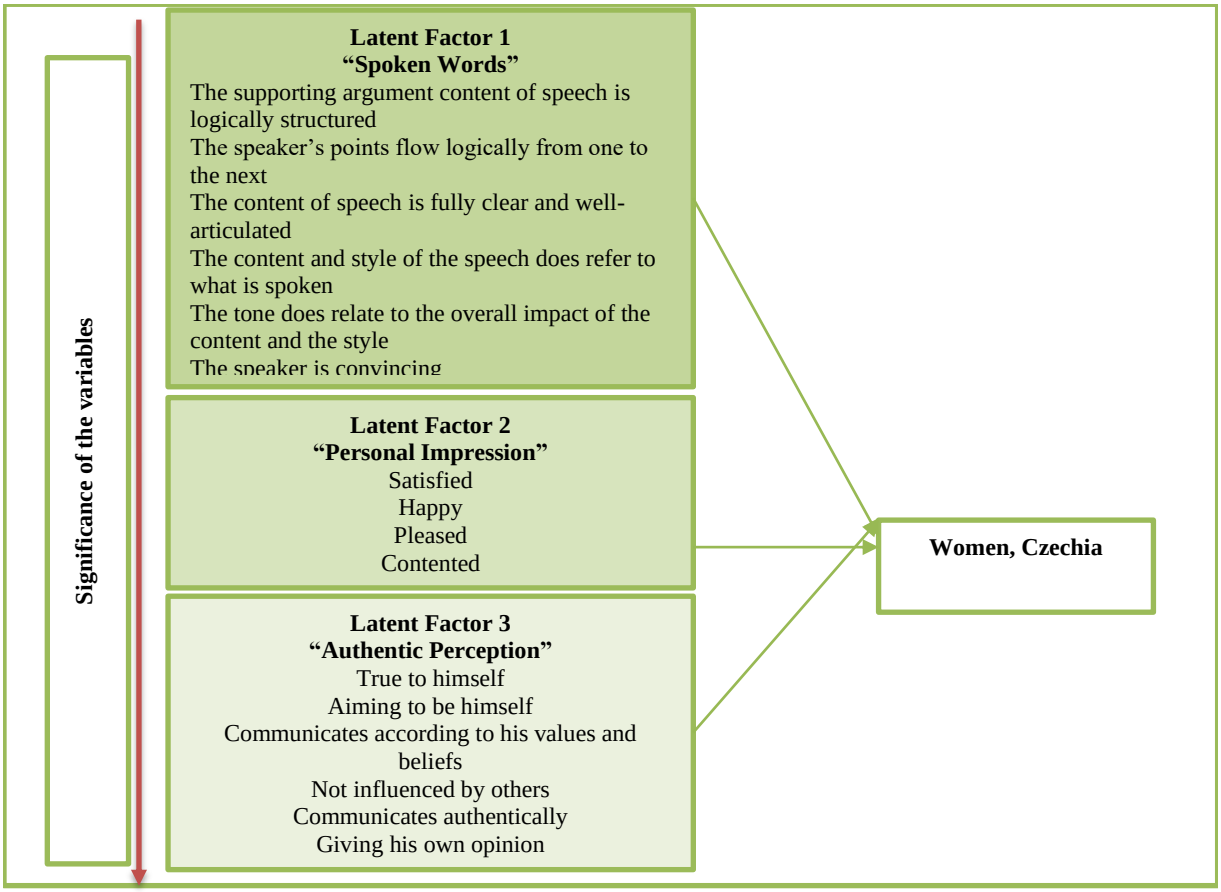


Fig. 3. Results of the Factor Analysis for Women

Source: Authors, 2024

The dataset was segmented by gender, creating two distinct groups: "Men" and "Women." Each group was subjected to factor analysis with the primary objective of identifying latent factors that explain the relationships among the observed variables. This method enabled a deeper understanding of the underlying constructs influencing perceptions in personal selling situations.

The analysis revealed three latent factors for both datasets:

Positive Impressions:

• For the "Men" group, this was identified as the most significant factor influencing positive perceptions in personal selling interactions. It underscores the importance of the overall impression created by the salesperson, encompassing elements such as demeanor, approachability, and confidence.

Spoken Words:

• This factor was prominent for both groups, though it held greater importance for the "Women" group. Key variables contributing to this factor included:

• The logical flow of the speaker's points.

• Clarity and articulation of speech.

• The logical structure of supporting arguments.

• Relevance of tone to the content and style of communication.

• The speaker's overall ability to deliver a convincing message.

• For women, the emphasis on structured, clear, and stylistically coherent verbal communication emerged as the most critical determinant of positive impressions.

Authentic Perception:

• This factor was notably significant for the "Men" group, highlighting the value placed on authenticity in personal selling contexts. Key aspects included:

- Being true to oneself.
- Expressing personal opinions genuinely.
- Communicating in alignment with personal values and beliefs.
- Resisting external influences.
- These elements reflect the importance of a salesperson's perceived sincerity and alignment with their own principles in shaping customer perceptions.

The findings reveal distinct gender-specific preferences in personal selling interactions. For men, authenticity plays a crucial role in forming positive impressions, suggesting that male customers are more attuned to the salesperson's perceived genuineness and self-expression. In contrast, women place greater emphasis on the clarity, structure, and logical delivery of verbal communication, prioritizing these aspects as key determinants of their evaluation.

These results underscore the influence of both cultural and gender-specific factors in shaping customer perceptions and preferences in sales contexts. They suggest that sales strategies could be optimized by tailoring communication styles and approaches to align with the distinct preferences of male and female customers. This has important implications for training sales professionals and designing customer engagement strategies in gender-diverse markets.

4. Conclusions

Based on the findings, several practical conclusions can guide marketing professionals operating in Czechia. These conclusions provide insights to enhance the effectiveness of strategies tailored to the local context: (1) The cultural tendency toward cautious and indirect communication (a strong communication context) in Czechia amplifies the importance of authenticity (Nový and Schroll-Machl, 2005). Prior research has also highlighted the significance of authenticity in fostering trust and positive outcomes (Walumbwa et al., 2010); (2) Both personal impressions and the structure of the sales conversation are essential to success. This aligns with the findings of Ambady et al. (1993, 2006), which emphasize the importance of first impressions in sales interactions. To succeed in Czechia, a salesperson demonstrating high product competence is likely to achieve better results. Training and hiring processes should focus on finding individuals with strong technical knowledge and ability to build authentic connections with customers.

Future studies should expand on the following:

- Investigate the impact of marketing factors such as product attributes, pricing strategies, distribution methods, and promotional activities on customer behavior in the Czech market.
- Compare findings across different sectors / geographic regions to better understand cultural nuances.
- Explore additional variables, such as digital communication styles, which may influence customer perceptions in a rapidly evolving technological landscape.

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