






# “Soft skills of business students in relation to higher education internships”

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# SOFT SKILLS OF BUSINESS STUDENTS IN RELATION TO HIGHER EDUCATION INTERNSHIPS

## Abstract

University internship is the transition between higher education and the labor market. The study was motivated by the fact that research on the effectiveness of internships is on the rise in many countries but is less widespread in Hungary, especially from the students' perspective. The aim is to determine how students in business education choose a workplace for their internship, whether they consider their own employability or the management aspects of the workplace. The questionnaire was conducted in Budapest, Hungary, covering higher education institutions of economics (7 in total), with 406 participants. The focus is to build a model of the interaction between different variables: the development of students' skills at the university, the specific internship placement, and the desirable work students would like to do during their internship. The results show no correlation between the type of skills students develop during their studies and the type of work they want to do during their internship. Moreover, the correlation between the soft skills they develop at work and those they acquire at university is only coincidental, therefore not supporting their employability. These results can be important for workplace management to effectively lead and inspire their teams, manage conflict, and communicate. The study offers implications for education policy, i.e., recommendations for changes to output requirements, which will also allow for developing training structures that are more responsive to employer needs.

## Keywords

employability, higher education, work experience, soft skills, market fit

## JEL Classification

J24, I23, A23

## INTRODUCTION

Research findings suggest that developing students' soft skills during university professional practice might impact their employability. Although research on university professional practice shows an upward trend in several countries, less applied in Hungary, especially not from the perspective of student skills. Since companies have already automated numerous routine tasks, management might expect a wider range of tasks from employees, such as critical thinking, empathic abilities, or communication skills, as these are the skills that computers cannot simulate. Soft skills support employees to be successful in the labor market and in personal life, contributing to their well-being. On the other hand, education is forced to recognize the usefulness of soft skills. There is increasing pressure on higher education to educate graduates with higher levels of employability. Besides conveying knowledge and occupation-specific skills, universities must also develop qualities applicable to various occupational situations and fields to achieve this goal. Although labor market actors (employers and employees) started to recognize the usefulness of soft skills, more is needed to know about the students' approach.

## 1. LITERATURE REVIEW AND HYPOTHESES

The importance of research related to developing soft skills in higher education has undoubtedly become relevant. A culture of interdisciplinarity in higher education enables and facilitates the satisfaction of students' demand that soft skill development is included in university education to increase employability (Sá & Serpa, 2022). Nevertheless, research conducted among students of five different European universities (Baird & Parayitam, 2019; Pereira et al., 2019) concluded that soft skill development of graduates in higher education is not satisfactory, as bachelor level students enter the labor market while not possessing skills that could significantly contribute to their employability, competitiveness, and career. Researching its reasons, Vera and Tejada (2020) and Tang (2018) showed that curricula developed in higher education institutions do not adequately promote the development of relevant soft skills. As a resolution, problem-based learning (Deep et al., 2019) or game-based learning (Garcia et al., 2020) is proposed to develop soft skills in undergraduate humanities courses and to introduce soft skill development into the curriculum as an additional educational activity (Feraco et al., 2023).

Soft skills – as lifelong learning skills – are not only to be developed in classrooms but also in informal environments (Dagume & Gyekye, 2016; Fakhretdinova et al., 2021; Succi & Wieandt, 2019). Researchers argue that students' initiatives might help bridge the skill gap, having a significant role in acquiring soft skills. This is in line with OECD's Learning Compass 2030 (OECD, 2019), where students are considered as active and decision-making responsible agents, able to exert influence on their life, well-being, and the world by developing skills through multi-level and multi-directional learning, which takes place interactively in communities, including workplaces. However, they need a supportive background from universities, e.g., flexible university timetables providing the opportunity to participate in extracurricular activities that are important in developing soft skills. For the training of future economists, Drobyazko et al. (2019), Logosha et al. (2019), Makedon et al. (2019), and Rubinstein

(2017) state that theoretical knowledge offered to students must be validated and mastered by professional practical testing in companies and institutions. Graduates must be well-informed, agile, and capable of quickly reacting to the changes of their professional fields (Tarman & Chigisheva, 2017). Thus, developing professional competences of economics graduates is possible only during practical training and requires fundamentally novel approaches from teachers in professional education, such as integration of “pedagogical, economic, and entrepreneurial knowledge, skills, and abilities” (Liba et al., 2019, p. 59). Overall, the results of analyses in this area pointed to the following: according to experts, teachers, and scientists, the level of higher education training does not fully meet the needs of the labor market.

Previous Hungarian research on professional practice approaches the topic from the perspective of economic organizations or students. The Hungarian articulation of professional practice does not emphasize working as a primary activity but rather focuses on the utilization of professional knowledge imparted by the educational institution and the workplace learning process. To support this, internship places must be well prepared, and practical training must be conducted according to a properly thought-out program. Following Badinszky et al. (2022), Farkasné Kurucz et al. (2010), and Markos (2012), economic organizations welcome interns since they have long-term HR programs and can develop employees according to their work culture. Other businesses welcome students who already have an elevated level of knowledge, which can be put into work quickly, and do not require high investment in their training. Students consider internship a long-term investment, focusing on its return in the labor market (Kun, 2017). As supported by Szabó-Bálint and Sipos (2021), for career success, it is worth accomplishing professional internship related to the field of study (beyond mandatory professional internship in the field of economy).

International literature emphasizes that professional practice is a tripartite relationship, concluded by three parties: students, higher educational institutions, and employers. Their relationship results from joint efforts, as each strives

to define the expectations toward the internship. Relevant literature is fragmented due to its discipline-specific nature, and perceptions of one or two involved parties were compared rather than the viewpoints of all three. Hora et al. (2020) approached professional practice from students' perspective through a cultural anthropology-originated free-listing method to examine students' data from three American colleges, showing that students expect experience, learning, earning, and connections from the internship. A similar result was reached by Gerken et al. (2012) and Griffin and Coelho (2019): from students' point of view, professional practice provides better career opportunities, relevant work experience, and greater opportunities of building relationships. According to Margaryan et al. (2022), these expectations were fulfilled as German university students who have completed internships at purposefully selected workplaces faced lower unemployment in the first year of their careers, indicating that they could easily enter the labor market. Positive labor market effects of internships were demonstrated (Kapareliotis et al., 2019) on a sample of Greek higher education institutions, where students positively evaluated their professional practice during the internship programs. Being aware of employers' expectations, students could effectively adapt their professional skills to employers' needs and value their satisfaction rather than external rewards. For profit organizations, an internship is a cost-effective opportunity to search for and test future talents (Gerken et al., 2012; Ramsomair & Howey 2004; Rogers et al., 2021) and involve novel knowledge and skills (Degraev et al., 2012). Lysytsia et al. (2019), Yiu and Law (2012), and Sanahuja Vélez and Ribes Giner (2015) evaluated professional practice from both employers' and students' perspectives, highlighting similarities and differences between stakeholder groups. According to both employers and students, an internship is expected to develop job-related and interrelational skills; however, their expectations were not always met. As students expect higher levels of supervision, more challenges and development are in technological skills at work.

Papadimitriou and Mardas (2012), Maelah et al. (2014), Craig and Wikle (2016), and O'Connor and Bodicoat (2017) assess the comparative ad-

vantages of internships among all three stakeholders and how employers and university curriculum might support students' development more efficiently throughout their professional practice. Graduates lack soft skills that employers value. Noah and Aziz (2020) examined graduates' soft skill development from the perspectives of four stakeholders: employers, students, universities, and governments. Collaboration between higher education institutions and public and private sector organizations might support students' labor market employability and lifelong learning; this is emphasized by Davey et al. (2018), who researched 28 EU and five associated countries. The country report highlighted that the major beneficiaries of cooperation in Hungary are businesses, universities, and academics, compared to European countries, where students and universities are considered to benefit more from the relationships, and the cooperation was less developed in the case of Hungarian academics compared to European countries (Orazbayeva et al., 2017).

Overall, there is a need for more advanced cooperation between educational institutions and management of workplaces that provide internships to better support students' development. Also, it is vital to explore the considerations of the three stakeholders regarding professional internships.

Thus, the aim of this study is to determine whether student skills are related to the type of work students want during their internship and the relationship between soft skills that need to be developed at workplaces and those acquired at universities.

In line with the literature review, two hypotheses are tested:

- H1: Students' decisions about the type of work they would like to do in an internship workplace are strongly influenced by the soft skills they have developed during their university studies.*
- H2: Students' expectations about the development of their soft skills during an internship are strongly related to the soft skills they have acquired during their university studies.*

## 2. METHOD

This analysis was conducted in 2022–2023 at seven Hungarian economic higher education institutions, mainly in Budapest, to determine students' thoughts about professional internships at the end of their studies. As part of their education, following the completion of theoretical knowledge acquisition, students must participate in a half-year practical training before preparing their thesis and completing final exams. It has several objectives: utilization of theoretical knowledge at an enterprise, acquiring further knowledge supplemented by practical applicability, and including internship as work experience in CVs. Furthermore, if they are mutually satisfied, an internship might conclude into a job offer.

The study was based on quantitative methods. Students completed an online questionnaire on university and social media platforms. The institutions were chosen as the subject of examination, being immensely popular and teaching economic sciences at a prominent level (two of the examined universities are in the ranking of best universities in Hungary). The largest proportion of responses came from two of Hungary's major universities: Eotvos Lorand University of Sciences and Budapest University of Business and Economics. As a result, the professional practice system has already been operating with a sound and mature

procedure system. As a main rule, students search and find companies themselves for their practical internships; however, universities might help through their company relationships. Willingness to answer could not be measured, as respondents provided answers on social media. Participation was voluntary, anonymous, and in accordance with the ethical regulations of universities. 406 respondents participated in the survey. Of them, 51 had already completed their professional internships; therefore, their answers were excluded from the sample to examine only a group still ahead of the internship to focus on their preferences, skills, and expectations.

The basic elements of the model are the development of students' skills at the university, at the professional workplace, and the desirable work that students would like to do during their professional practice. The influence of these variables on each other has been examined. Furthermore, a question arises as to how the specific characteristics of students and organizations providing internships affect these relationships. Figure 1 shows the research model and the interrelations.

The questionnaire consisted of 15 questions: two open and 13 closed questions. During the investigation, a self-created questionnaire was applied, purposefully not using questions from previous research, due to the uniqueness of the topic.

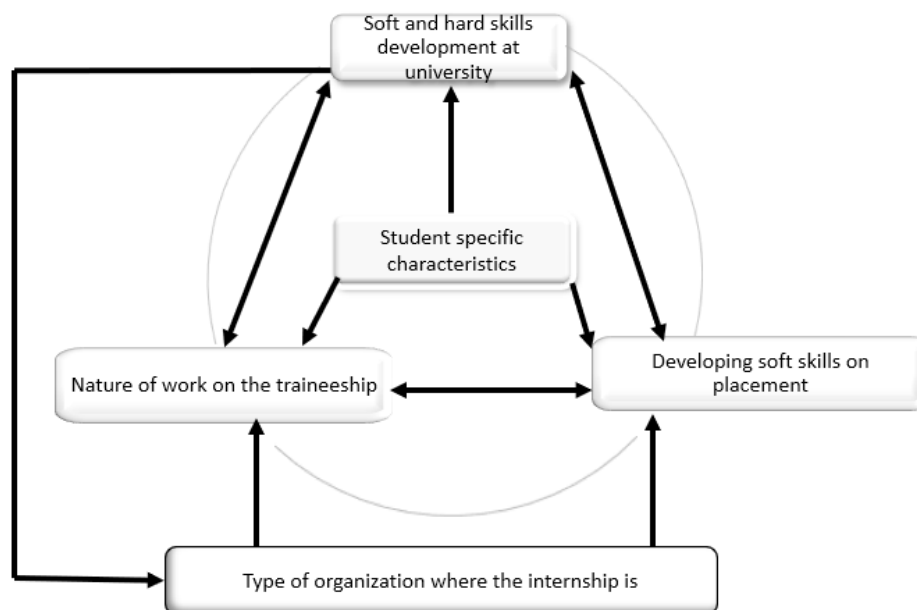


Figure 1. Research model

Questions were made up of metric and categorical variables. Several questions addressed students' soft skills, assessments, and changes. The EU 2020 Skill Match Project and their groups have been applied when creating and classifying the examined skills. Skills are grouped into four categories (Horváth-Csikós et al., 2022). Out of the scales used by Horváth et al. (2022), 35 have been included in the study:

- Self-image and vision of the world: Accountability, patience, self-control, goal orientation, motivation, self-management, resilience, initiative, and tenacity.
- Context and performance-related: Customer focus, diligence, respect for privacy, personal development, positive attitude, reliability, efficiency, respect for the environment, and adaptability.
- Social interaction: Coaching, networking, ethical behavior, negotiation, leadership, motivate others, communication, respect for diversity, and teamwork.
- Methodological, intuitive, and lateral thinking: Conflict resolution, creativity, organization, decision-making, manage quality, strategic thinking, problem-solving, and critical thinking.

Survey questions are divided into several groups. The first group specified students' gender, age, major, and place of residence. The second discussed ideas related to professional practice, revealing the nature of the work, type of host employer, and students' knowledge about the employer. The third group dealt with students' skills, how skills and abilities developed during their university studies, and students' expectations of how these qualities would develop following professional practice. A trial questionnaire was conducted with 10 students at the beginning of the survey. Since they had no interpretability problems, the questionnaire was sent out unchanged. The reliability of the questionnaire was examined by the split-half reliability method. The Spearman-Brown coefficient was 0.782, and the Cronbach's alpha was 0.936 when analyzing reliability, so it is completely acceptable.

During the investigation, univariate and multivariate analysis methods were applied, and the model was analyzed with SPSS 28 and Smart PLS 4 programs. Univariate and multivariate tests were performed, for example, frequency and mean tests, cross-tabulation, ANOVA, and linear regression. The characteristics of the sample are summarized in Table 1. The average age of respondents was 21.43 the standard deviation was 3.271 years. Data in Table 1 show that women were more represented in the sample, and by place of residence, mainly those living in cities answered the questions.

**Table 1.** Characteristics of the sample

| Specifics          | Item                    | Number | Percentage |
|--------------------|-------------------------|--------|------------|
| Gender             | Male                    | 117    | 32.7%      |
|                    | Female                  | 241    | 67.3%      |
| Place of residence | Capital                 | 141    | 39.4%      |
|                    | City with county rights | 40     | 11.2%      |
|                    | City                    | 125    | 34.9%      |
|                    | Village                 | 37     | 10.3%      |
|                    | Small village           | 15     | 4.2%       |

Note: N = 358.

### 3. RESULTS

First, participants had to answer what kind of knowledge and relationship they have with the organization where they would like to spend their professional internship. 58.9% of respondents do not know yet to which organization they would like to go. In comparison, 8.9% are aware where they would like to complete their internship and 14.0% have already worked for the given organization before or working there currently (18.2%). Most students living in the capital (33.7%) do not yet know where they are going to work, while one in five of those living in small villages has already been employed by the given employer or is currently employed there.

60% of male respondents have no idea yet about their professional internship, while this ratio in the case of females is 58%. Respondents wanted to complete their professional practice at various organizations: 19.2% were privately owned small and medium-sized enterprises, 10.4% were privately owned Hungarian large companies, 65.4% were privately owned international companies, 3.4% were state, public administrations, and the remaining 1.7% were other organizations. Respondents answered what kind of work they would like to do, evaluating the given areas on

**Table 2.** Mean and standard deviation of the desired type of work

| Areas     | Types of work within the areas | Work code | Mean | Std. Deviation |
|-----------|--------------------------------|-----------|------|----------------|
| Marketing | Marketing                      | PM1       | 3.40 | 1.266          |
|           | Public relations               | PM2       | 3.15 | 1.305          |
|           | Event organization             | PM3       | 3.29 | 1.439          |
|           | Media (TV, journalism)         | PM4       | 2.58 | 1.356          |
| Finance   | Finance                        | PF1       | 3.12 | 1.407          |
|           | Controlling                    | PF2       | 3.04 | 1.243          |
|           | Bookkeeping                    | PF3       | 2.53 | 1.376          |
| Logistics | Logistics, Supply chain        | PL1       | 3.09 | 1.317          |
| HR        | HR                             | PHR1      | 3.19 | 1.455          |
|           | Labor relations                | PHR2      | 2.59 | 1.164          |

a five-point Likert scale, where one meant 'not at all' and five indicated the 'full extent'. Jobs have been classified in four areas: marketing, finance, logistics, and HR. Table 2 shows the means and standard deviations of the values given by the students.

Data show that marketing is the most attractive field to students (M: 3.40). However, standard deviations are remarkably high (SD: 1.266), meaning that students did not have a unanimous opinion. Using ANOVA, it has been analyzed whether there is any correlation between the company type someone applies to and the kind of work they want to do there. There was no significant relationship in any field of employment. In the case of large Hungarian-owned companies, students were mostly interested in event organization and marketing (M: 3.54, 3.57); similarly, marketing was the leading choice in the case of large international companies (M: 3.41) as well as for state-owned companies (M: 3.75).

Following that, respondents had to rate on a five-point Likert scale how their soft skills developed during university education. Regarding soft skills, the aforementioned EU classification has been applied. 35 skills were examined in four groups: self-image and vision of the world, context and performance-related, social interaction, and methodological, intuitive, and lateral thinking. Skills have been analyzed in two phases: how students' skills developed during their university education, and their expectations for how they will change after the professional practice. Table 3 shows mean and standard deviations of skills during the education and the expected effect after internships.

Table 3 shows that students improved their skills related to context and performance during their university studies. Respondents gave high scores in the case of personal development (M: 4.15), adaptabil-

ity (M: 4.11), and reliability (M: 4.07). In the area of social interactions, they considered to be strong in teamwork (M: 4.08), while leadership (M: 3.36) and negotiation skills (M: 3.39) were given very low values. Methodological, intuitive, and lateral thinking skills, such as creativity (M: 3.44), managing quality (M: 3.38), and strategic thinking (M: 3.75), that are necessary for management have developed less. Respondents' resilience (M: 3.95), self-management (M: 3.94), and goal orientation (M: 3.94) were strongly developed in the field of self-image and vision of the world. However, skills of patience (M: 3.43) and motivation (M: 3.48) still can further improve. Students expected improvement in all skills after professional practice. The average difference is particularly high in the areas of customer focus (diff. M: 0.95), networking (diff. M: 0.84), negotiation (diff. M: 0.63), accountability (diff. M: 0.69), and patience (diff. M: 0.62). At the same time, they see that the least they could improve are the respect for the environment (diff. M: 0.14), diversity (diff. M: 0.09), organization (diff. M: 0.18), and adaptability (diff. M: 0.18).

To support further investigations, a model analyzed the validity of the hypotheses. Structural equation modeling (SEM) was applied for modeling the latent variables, including a variance-based method (PLS path analysis). There are so-called latent variables in the model, which are measured by indicators. Parts of the model are the measurement and the structural models.

First, relationships between latent variable and indicators are analyzed, then relationships between latent variables are examined. Latent variables can be exogenous and endogenous: the exogenous is the independent and the endogenous is the explained variable (Sajtos & Fache, 2019). The PLS-SEM path analysis does not require items to be normally distributed (Hair et al., 2017). The normality of variables has

**Table 3.** Mean and standard deviations of soft skills during university studies and internships

| Skill group                                   | Soft skill              | University |      |                | Professional Practice |      |                | Mean difference |
|---|-------------------------|------------|------|----------------|-----------------------|------|----------------|-----------------|
|   |                         | Skill code | Mean | Std. Deviation | Skill code            | Mean | Std. Deviation |                 |
| Self-image and vision of the world            | Accountability          | SE1        | 3.52 | 0.865          | SE1P                  | 4.21 | 0.845          | 0.69            |
|   | Patience                | SE2        | 3.43 | 1.080          | SE2P                  | 4.05 | 0.938          | 0.62            |
|   | Self-control            | SE3        | 3.75 | 0.924          | SE3P                  | 4.08 | 0.946          | 0.32            |
|   | Goal orientation        | SE4        | 3.94 | 0.958          | SE4P                  | 4.25 | 0.877          | 0.31            |
|   | Motivation              | SE5        | 3.48 | 1.158          | SE5P                  | 4.00 | 0.948          | 0.52            |
|   | Self-management         | SE6        | 3.94 | 0.987          | SE6P                  | 4.26 | 0.836          | 0.31            |
|   | Resilience              | SE7        | 3.95 | 0.948          | SE7P                  | 4.20 | 0.920          | 0.26            |
|   | Initiative              | SE8        | 3.66 | 1.086          | SE8P                  | 4.02 | 0.929          | 0.36            |
|   | Tenacity                | SE9        | 3.92 | 0.997          | SE9P                  | 4.20 | 0.857          | 0.28            |
| Context and performance-related               | Customer focus          | CO1        | 3.09 | 1.075          | CO1P                  | 4.05 | 0.953          | 0.95            |
|   | Diligence               | CO2        | 3.46 | 1.082          | CO2P                  | 3.96 | 0.960          | 0.50            |
|   | Respect privacy         | CO3        | 3.54 | 1.110          | CO3P                  | 3.77 | 1.136          | 0.23            |
|   | Personal development    | CO4        | 4.15 | 0.851          | CO4P                  | 4.27 | 0.869          | 0.12            |
|   | Positive attitude       | CO5        | 3.62 | 1.070          | CO5P                  | 3.89 | 0.950          | 0.27            |
|   | Reliability             | CO6        | 4.07 | 0.936          | CO6P                  | 4.33 | 0.844          | 0.26            |
|   | Efficiency              | CO7        | 3.98 | 0.906          | CO7P                  | 4.38 | 0.748          | 0.40            |
|   | Respect the environment | CO8        | 3.73 | 1.047          | CO8P                  | 3.87 | 1.070          | 0.14            |
|   | Adaptability            | CO9        | 4.11 | 0.890          | CO9P                  | 4.29 | 0.855          | 0.18            |
| Social interaction                            | Coaching                | SO1        | 2.92 | 1.069          | SO1P                  | 3.40 | 1.144          | 0.48            |
|   | Networking              | SO2        | 3.07 | 1.197          | SO2P                  | 3.91 | 1.071          | 0.84            |
|   | Ethical behavior        | SO3        | 3.67 | 0.992          | SO3P                  | 3.96 | 0.972          | 0.29            |
|   | Negotiation             | SO4        | 3.39 | 1.105          | SO4P                  | 4.01 | 0.970          | 0.63            |
|   | Leadership              | SO5        | 3.36 | 1.152          | SO5P                  | 3.63 | 1.134          | 0.26            |
|   | Motivate others         | SO6        | 3.54 | 1.066          | SO6P                  | 3.74 | 1.075          | 0.20            |
|   | Communication           | SO7        | 3.99 | 0.980          | SO7P                  | 4.40 | 0.805          | 0.41            |
|   | Respect for diversity   | SO8        | 3.92 | 1.035          | SO8P                  | 4.00 | 1.007          | 0.09            |
|   | Teamwork                | SO9        | 4.08 | 0.985          | SO9P                  | 4.41 | 0.820          | 0.33            |
| Methodological intuitive and lateral thinking | Conflict resolution     | ME1        | 3.83 | 0.992          | ME1P                  | 4.26 | 0.830          | 0.43            |
|   | Creativity              | ME2        | 3.44 | 1.096          | ME2P                  | 3.79 | 1.022          | 0.35            |
|   | Organization            | ME3        | 3.70 | 1.067          | ME3P                  | 3.88 | 1.040          | 0.18            |
|   | Decision making         | ME4        | 3.80 | 0.989          | ME4P                  | 4.09 | 0.948          | 0.28            |
|   | Manage quality          | ME5        | 3.38 | 0.968          | ME5P                  | 3.82 | 0.994          | 0.44            |
|   | Strategic thinking      | ME6        | 3.75 | 0.989          | ME6P                  | 4.14 | 0.915          | 0.39            |
|   | Problem-solving         | ME7        | 4.04 | 0.906          | ME7P                  | 4.38 | 0.805          | 0.34            |
|   | Critical thinking       | ME8        | 3.79 | 1.012          | ME8P                  | 4.17 | 0.958          | 0.38            |

been checked using the Kolmogorov-Smirnov and Shapiro-Wilk tests, and the significance level for all items was less than 0.01, so they did not show normal distribution.

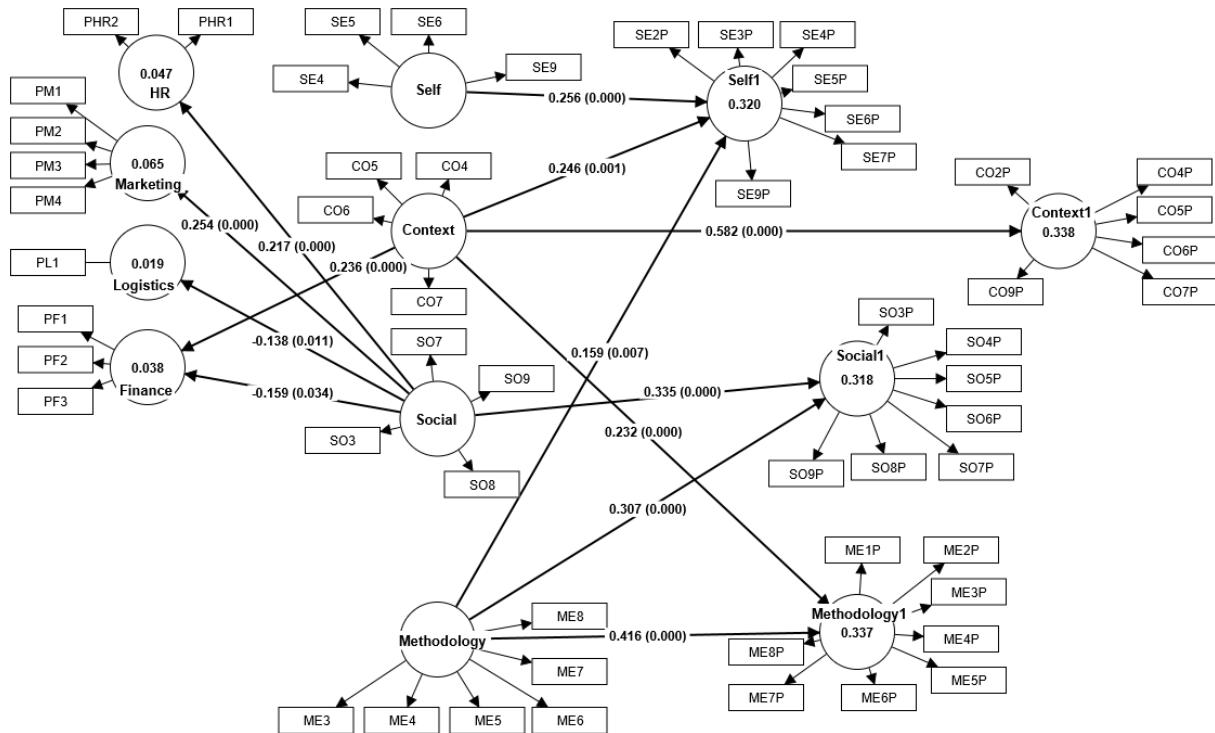
During further examination of variables, the standardized factor weights have been checked. The limit is 0.708 (Hulland, 1999). Items lower than this limit have been removed from the study, so standardized factor weights of the remaining variables corresponded to the limit. The VIF value has been checked to examine multicollinearity, which was below 5 for all items. Following that, the appropriateness of latent variables has been checked. Among others, Cronbach's alpha was applied to test the reliability of latent variables, for which the threshold value is 0.7. It was lower only in the case of one latent variable (HR), but since its value was remarkably close to the limit (0.674), it was kept in the study. CR (composite reliability)

has also been used to check reliability; its value must be above 0.7. This was achieved for all variables. The AVE (average variance extracted) is used to measure convergence validity; its value is good above 0.5. At first, not all constructs corresponded to this value. However, in the case of those variables where the factor weight was relatively low, an item with a lower factor weight was removed from the construct, so the AVE value also increased. Then all latent variables met the AVE condition. To check the discriminant validity, the Fornel and Larcker (1981) test has been applied. In the case of the model, this condition was also fulfilled. The most important indicators of the measurement model, the standardized factor weight, VIF, Cronbach's alpha, CR, and AVE, are presented in Table 4. The Fornel and Larcker results are not published due to space limitations. To mark the items, the letter codes used in Tables 2 and 3 are applied.



**Table 4.** Standardized factor weights, VIF validity, and reliability results

| Latent variable | Item code | Standardized factor weight | VIF   | Cronbach's alpha | CR    | AVE   |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|-----------------|-----------|----------------------------|-------|------------------|-------|-------|-----------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----------|-----|---|---|--|--|--|---------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|------------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|---------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|--------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-------------|-----|-------|-------|-------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|----------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|---------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|--------------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|
| HR              | PHR1      | 0.930                      | 1.349 | 0.674            | 0.853 | 0.744 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PHR2      | 0.790                      | 1.349 |                  |       |       | Marketing | PM1 | 0.828 | 1.527 | 0.792 | 0.860 | 0.607 | PM2 | 0.780 | 1.570 | PM3 | 0.791 | 1.678 | PM4 | 0.713 | 1.653 | Logistics | PL1 | 1 | 1 |  |  |  | Finance | PF1 | 0.872 | 1.768 | 0.754 | 0.856 | 0.666 | PF2 | 0.828 | 1.426 | PF3 | 0.742 | 1.529 | Self-image | SE4 | 0.774 | 1.680 | 0.761 | 0.847 | 0.582 | SE5 | 0.803 | 1.633 | SE6 | 0.715 | 1.332 | SE9 | 0.757 | 1.394 | Context | CO4 | 0.763 | 1.553 | 0.760 | 0.847 | 0.581 | CO5 | 0.761 | 1.446 | CO6 | 0.754 | 1.444 | CO7 | 0.771 | 1.517 | Social | SO3 | 0.749 | 1.396 | 0.755 | 0.844 | 0.575 | SO7 | 0.762 | 1.598 | SO8 | 0.793 | 1.542 | SO9 | 0.728 | 1.520 | Methodology | ME3 | 0.760 | 1.543 | 0.851 | 0.889 | 0.573 | ME4 | 0.741 | 1.675 | ME5 | 0.721 | 1.471 | ME6 | 0.816 | 2.343 | ME8 | 0.723 | 1.670 | Self1 | SE2P | 0.742 | 2.240 | 0.871 | 0.900 | 0.563 | SE3P | 0.799 | 2.579 | SE4P | 0.757 | 1.680 | SE5P | 0.736 | 1.808 | SE6P | 0.740 | 1.728 | SE7P | 0.721 | 1.681 | SE9P | 0.756 | 1.768 | Context1 | CO2P | 0.765 | 1.730 | 0.861 | 0.896 | 0.591 | CO4P | 0.781 | 1.892 | CO5P | 0.732 | 1.822 | CO6P | 0.793 | 1.622 | CO7P | 0.788 | 1.852 | Social1 | CO9P | 0.751 | 1.740 | 0.855 | 0.889 | 0.533 | SO3P | 0.713 | 1.768 | SO4P | 0.749 | 2.075 | SO5P | 0.714 | 2.562 | SO6P | 0.743 | 2.214 | SO7P | 0.701 | 1.642 | Methodology1 | SO8P | 0.769 | 1.815 | 0.903 | 0.922 | 0.595 | SO9P | 0.719 | 1.678 | ME1P | 0.733 | 1.889 | ME2P | 0.716 | 1.849 | ME3P | 0.754 | 1.960 | ME4P | 0.774 | 2.094 | ME5P | 0.769 | 2.036 | ME6P | 0.824 | 2.687 | ME7P | 0.805 | 2.563 | ME8P | 0.791 |
| Marketing       | PM1       | 0.828                      | 1.527 | 0.792            | 0.860 | 0.607 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PM2       | 0.780                      | 1.570 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PM3       | 0.791                      | 1.678 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PM4       | 0.713                      | 1.653 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Logistics       | PL1       | 1                          | 1     |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Finance         | PF1       | 0.872                      | 1.768 | 0.754            | 0.856 | 0.666 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PF2       | 0.828                      | 1.426 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | PF3       | 0.742                      | 1.529 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Self-image      | SE4       | 0.774                      | 1.680 | 0.761            | 0.847 | 0.582 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE5       | 0.803                      | 1.633 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE6       | 0.715                      | 1.332 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE9       | 0.757                      | 1.394 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Context         | CO4       | 0.763                      | 1.553 | 0.760            | 0.847 | 0.581 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO5       | 0.761                      | 1.446 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO6       | 0.754                      | 1.444 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO7       | 0.771                      | 1.517 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Social          | SO3       | 0.749                      | 1.396 | 0.755            | 0.844 | 0.575 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO7       | 0.762                      | 1.598 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO8       | 0.793                      | 1.542 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO9       | 0.728                      | 1.520 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Methodology     | ME3       | 0.760                      | 1.543 | 0.851            | 0.889 | 0.573 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME4       | 0.741                      | 1.675 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME5       | 0.721                      | 1.471 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME6       | 0.816                      | 2.343 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME8       | 0.723                      | 1.670 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Self1           | SE2P      | 0.742                      | 2.240 | 0.871            | 0.900 | 0.563 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE3P      | 0.799                      | 2.579 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE4P      | 0.757                      | 1.680 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE5P      | 0.736                      | 1.808 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE6P      | 0.740                      | 1.728 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE7P      | 0.721                      | 1.681 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SE9P      | 0.756                      | 1.768 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Context1        | CO2P      | 0.765                      | 1.730 | 0.861            | 0.896 | 0.591 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO4P      | 0.781                      | 1.892 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO5P      | 0.732                      | 1.822 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO6P      | 0.793                      | 1.622 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | CO7P      | 0.788                      | 1.852 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Social1         | CO9P      | 0.751                      | 1.740 | 0.855            | 0.889 | 0.533 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO3P      | 0.713                      | 1.768 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO4P      | 0.749                      | 2.075 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO5P      | 0.714                      | 2.562 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO6P      | 0.743                      | 2.214 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO7P      | 0.701                      | 1.642 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| Methodology1    | SO8P      | 0.769                      | 1.815 | 0.903            | 0.922 | 0.595 |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | SO9P      | 0.719                      | 1.678 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME1P      | 0.733                      | 1.889 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME2P      | 0.716                      | 1.849 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME3P      | 0.754                      | 1.960 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME4P      | 0.774                      | 2.094 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME5P      | 0.769                      | 2.036 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
|                 | ME6P      | 0.824                      | 2.687 |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| ME7P            | 0.805     | 2.563                      |       |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |
| ME8P            | 0.791     | 2.259                      |       |                  |       |       |           |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |           |     |   |   |  |  |  |         |     |       |       |       |       |       |     |       |       |     |       |       |            |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |         |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |        |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |             |     |       |       |       |       |       |     |       |       |     |       |       |     |       |       |     |       |       |       |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |          |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |         |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |              |      |       |       |       |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |



**Figure 2.** Professional practice in the light of desirable job opportunities and soft skills

For the analysis of the model, bootstrap sampling has been used to test the significance of the path coefficients. The subsample number was 5,000, and a significance level of 0.05 was used for the p-value. It has been examined whether the independent variables significantly affected the dependent variables. The beta coefficient was utilized to analyze to what extent one variable influences another. Finally, the R-squared values were analyzed, indicating the magnitude of the change in the endogenous variable explained by the exogenous variables (Figure 2).

Twelve latent variables are drawn in Figure 2. The arrows show the relationship between these variables. Only significant correlations are marked. Latent variables were low-level constructs. The model's endogenous variables are the soft skills after various work opportunities and professional practice, while the exogenous variables represent the soft skills strengthened during university studies. There are no mediator variables in the model that mediate between two other latent variables. The model was based on that students consciously consider what kind of work they would undertake in an organization, and this is influenced by which soft skills they feel to be strong, i.e., which skills are developed during their studies. On the other

hand, soft skills, which improved during university years, have an impact on which skills will be strengthened during professional practice. The significant relationships between the individual variables are summarized in Table 5, where beta values, T-statistics (its value is good if above 1.96), and p-values are presented.

**Table 5.** Direct relationships

| Variable relationships     | $\beta$ value | T statistics | P values |
|----------------------------|---------------|--------------|----------|
| Context → Context1         | 0.582         | 12.499       | 0.000    |
| Context → Finance          | 0.236         | 3.703        | 0.000    |
| Context → Methodology1     | 0.232         | 4.423        | 0.000    |
| Context → Self1            | 0.246         | 3.435        | 0.001    |
| Methodology → Methodology1 | 0.416         | 7.561        | 0.000    |
| Methodology → Self1        | 0.159         | 2.714        | 0.007    |
| Methodology → Social1      | 0.307         | 5.373        | 0.000    |
| Self → Self1               | 0.256         | 3.675        | 0.000    |
| Social → Finance           | -0.159        | 2.120        | 0.034    |
| Social → HR                | 0.217         | 4.423        | 0.000    |
| Social → Logistics         | -0.138        | 2.538        | 0.011    |
| Social → Marketing         | 0.254         | 5.303        | 0.000    |
| Social → Social1           | 0.335         | 4.769        | 0.000    |

Thus, most students who developed soft skills related to social interactions, i.e., in communication, respect for diversity, teamwork, ethical behavior, would find work that is important to them, especially in the fields of HR and marketing, where the

development of emotional intelligence, i.e., people-oriented soft skills, is particularly prominent (for HR:  $\beta$ : 0.217 T: 4.423 p: 0.000, for marketing:  $\beta$ : 0.254 T: 5.303 p: 0.000). Those students who felt that they strengthened their soft skills related to the context and performance during their university years, such as efficiency, reliability, positive attitude, and personal development, are attracted to financial jobs, where these soft skills are pronounced ( $\beta$ : 0.236 T: 3.703 p: 0.000). However, the results prove that students do not consider that they should go for professional practice to a field in which they have strong skills. Methodological, intuitive, and lateral thinking, as well as self-image and vision of the world, do not appear as selection criteria, while students felt a strong improvement in these skills earlier, as shown by the mean values in Table 3.

Furthermore, the development of soft skills at university explains only a small percentage of the changes in soft skills in the chosen jobs. This is so small that it is almost negligible. Considering these results, the first hypothesis is rejected, i.e., there is no conscious decision that students choose practical work corresponding to the soft skills developed during their university years, i.e., they do not decide based on the consideration of their skills. At the same time, skills developed at university impact the expectations they have for the further development of skills during professional practice. Skills related to context and performance, including methodological, intuitive, and lateral thinking, have an impact on these developmental expectations. The change in skill development during professional practice is explained in 33% in the case of self-image and vision of the world, in 34% in relation to context and performance, in 32% in the case of social interaction, and in 34% in examining methodological, intuitive, and lateral thinking. As a conclusion, the second hypothesis is accepted, i.e., how students' soft skills develop at university has an impact on how they will develop in professional internships based on their expectations. Based on the results, the following could be concluded.

Hypothesis 1 – students' decision about what kind of work they want to do in a workplace that provides professional practice is greatly influenced by which soft skills they have and how they devel-

oped during their university studies – is rejected. Rejection is based on the research results confirming the thesis that students' decision about what kind of work they want to do in a work placement is not influenced by their soft skills and how they have developed during their university studies.

Hypothesis 2 – students' expectation of how their soft skills develop during professional practice is closely related to which soft skills they have already developed during their university studies – is accepted. This hypothesis is supported by the research results concluding that students' expectation of how their soft skills develop during professional practice is closely related to which soft skills they have already developed during their university studies.

## 4. DISCUSSION

According to the results, professional practice does not fulfill the role that students would go through in professional development helping their prosperity in the labor market. The study found that students were not looking for the relation between their theoretical learning and what they learned in their professional internship, consequently making the skill transfer difficult.

The results showed that students do not have sufficient self-reflection and self-awareness to analyze which of their skills have developed during their university education. Accordingly, they did not consciously choose a professional practice place where they can further develop these skills to be successful in the labor market, even though a positive impact of professional practice on the labor market has been emphasized (Kapareliotis et al., 2019; Margaryan et al., 2022; Szabó-Bálint & Sipos, 2021). Selection of internship is done ad-hoc, involving the possibility that neither employers nor students may not be satisfied with each other; their expectations may not be met (Yiu & Law, 2012; Sanahuja Vélez & Ribes Giner, 2015; Zehr & Korte, 2020). Although students expect that during professional practice their skills strengthened in education will further develop (Gerken et al., 2012; Griffin & Coelho, 2019), since they do not consciously choose a professional practice place and activity, it will not happen or the chances are ran-

dom. This will result in disappointment, as neither students nor the employers will be satisfied with the effectiveness of the internship.

To improve current situation, it is recommended – in accordance with Craig and Wikle (2016), Maelah et al. (2014), O'Connor and Bodicoat (2017), and Papadimitriou and Mardas (2012) – that effective intervention of higher education institutions is necessary. Emphasizing parties' cooperation (employer – higher education institution – student), universities must build professional relationships with internship places by applying the same skills that higher education develops. It is necessary to assess which student skills are strong in university education and need to be further developed during internships. Since higher education institutions are mostly characterized by theoretical education, which is difficult for students to apply in practice, more emphasis should be placed on soft skill development, and students must have opportunities to achieve higher self-awareness (Fakhretdinova et

al., 2021; Feraco et al., 2023; Vera & Tejada, 2020; Tang, 2018). It is recommended to have mentors at internships to promote workplace learning (Zagir & Dorner, 2022). For students, an internship might be the first occasion when professional skills and expert expectations become evident. To become professionals, students also need role models (Choice & Thomas, 2023). Currently, there is no commonly accepted method for evaluating university-level internships. Individual programs and universities evaluate experiences according to various aspects. Previously published research on the evaluation of professional internships shows that students found their internships supported both interpersonal and professional knowledge and skills, making them recommend it to other students. The results also show that students who were satisfied with their internships are more likely to acquire a job in their field after graduation than students who were dissatisfied. This result also argues for the continuous evaluation and standardization of internships.

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## CONCLUSION

The purpose of the study was to investigate soft skills developed in university education from the students' perspective and the students' expectations regarding soft skill development during professional practice.

On the one hand, results showed no correlation between the skills students develop during their university education and those during their internship; on the other hand, the correlation between soft skills to be improved in the future workplace and the soft skills acquired at university is only coincidental.

The research results also confirmed that internships are not consistently contributing as they should, i.e., give students a hands-on experience of company operations or test and develop the hard and soft skills they have acquired at university. This would be particularly important to ensure they learn in a real working environment, including professional situations, and acquire management skills that could be utilized at workplaces following graduation. Furthermore, if students find an internship that matches their skills, their employability might increase after graduation. Working in a familiar company culture and organization might positively impact motivation and cooperation with colleagues.

Based on the study findings, it is evident that the perceptions of all stakeholders (university, student, and employer) must be explicitly discussed prior to professional practice to ensure the same expectations from all three parties, making mutual communication and efficient dialogue one of the most crucial factors.

The survey provides recommendations based on results as to how students' skills, developed during university education, can be utilized in professional practice. Practical utilization of the research results will provide a long-term support for graduates of economics by developing a 'soft skill mirror' which soft skills graduates have acquired during university years' curriculum and extracurricular activities.

This study has several limitations. It dealt only with responses of economics students from several higher educational institutions operating in Hungary. Therefore, collected data may not represent students of other educational institutions or courses. However, results complement the literature presenting the skills developed by economics students in university education and in professional internship.

## AUTHOR CONTRIBUTIONS

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Formal analysis: Timea Juhasz.

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