

## WHAT IS WORTH DEVELOPING? EXAMINING THE IMPORTANCE OF DIGITAL, GREEN, AND SOCIAL SKILLS FROM A STAFF PERSPECTIVE

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### ABSTRACT

In 2020, Covid-19 interrupted the unprecedented growth in tourism and hospitality worldwide. Although the restrictions highlighted workforce-related weaknesses, the post-pandemic boom has proven the industry's dependence on human labour despite technological development. Besides grappling with labour intensity, hospitality enterprises might face social, digital, and environmental changes. Tourism businesses must behave more responsibly towards nature, while the rapid globalization of the labour market necessitates the provision of an inclusive service-scape; moreover, they must remain competitive in the increasingly widening digital space. This study aimed to examine what skills hotel restaurant staff members consider to be important now and in the future. The research design is based on the Pack for Next Tourism Generation Skills framework. In 2024, 122 hotel restaurant employees were surveyed in a quantitative study in Hungary. The significant statistical differences in the study show how much more important social skills are for frontline staff and prove that the ability to work effectively in a team and minimize economic loss is a priority for kitchen staff. Respondents unanimously expect the enhancing importance of digital and green skills in the future. Regarding geographical differences, the study provides evidence that digital reservation solutions and treating the diverse dietary needs of guests are more relevant in the capital than in other regions.

*Keywords:* digital skills, green skills, hospitality, skills, social skills

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## MIT ÉRDEMES FEJLESZTENI? A DIGITÁLIS, ZÖLD ÉS SZOCIÁLIS KÉSZSÉGEK FONTOSÁGÁNAK VIZSGÁLATA A SZEMÉLYZET NÉZÖPONTJÁBÓL

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### ABSZTRAKT

2020-ban a Covid-19 a turizmus-vendéglátás példátlan növekedését törte meg világszerte. Bár a korlátozások rávilágítottak a munkaerővel kapcsolatos gyengeségekre, a világjárvány utáni fellendülés bebizonyította az iparág emberi munkaerőnek való kitettségét a technológiai fejlődés ellenére is. A munkaerő-intenzitás kezelése mellett a vállalkozásoknak társadalmi, digitális és környezeti változásokkal is szembe kell nézniük. Felelősségteljesen kell bánniuk a természeti erőforrásokkal, miközben a munkaerőpiac gyors globalizációja egy nyitott és befogadó szolgáltatási környezet biztosítását teszi szükségessé, nem mellesleg versenyképeseknek kell maradniuk az egyre táguló digitális térben. Jelen tanulmány azt vizsgálja, hogy a szállodai éttermek személyzete milyen készségeket tart fontosnak jelenleg és a jövőre nézve. A Pack for Next Tourism Generation Skills-en alapuló kvantitatív kutatás keretein belül 122, szállodai étteremben dolgozó szakembert kérdeztek meg Magyarországon. A kutatás szignifikáns eredményei alátámasztják, hogy jóval fontosabbak a szociális készségek a vendégtérben dolgozók számára, míg a konyhai személyzet esetében inkább a hatékony csapatmunka és a gazdasági veszteség minimalizálása élveznek prioritást. A válaszadók, munkaterülettől függetlenül a digitális és zöld készségek növekvő fontosságára számítanak a jövőben. A földrajzi különbségeket tekintve a tanulmány bizonyítékot szolgáltat arra, hogy a digitális foglalási megoldások és a vendégek változó étkezési igényeinek kezelése relevánsabb a fővárosban, mint más régiókban.

**Kulcsszavak:** digitális készségek, zöld készségek, vendéglátás, készségek, szociális készségek

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## 1. Introduction: A broken growth and a rapid recovery

By 2019, world tourism had grown bigger than ever before. According to Statista (2024a), the contribution of travel and tourism to gross domestic product worldwide was \$ 10 trillion, while the number of tourist arrivals increased to nearly one and a half billion (Statista, 2024b). In 2019, the leisure tourism spending exceeded \$ 4 trillion (Statista, 2023a), while business travellers spent \$ 1.3 trillion (Statista, 2023b). Amid the global flourishing of tourism, studies were conducted on the risks threatening the development of tourism for instance, the impact of natural disasters (Aliperti et al., 2019; Prayag et al., 2019), terrorism and geopolitical risks (Demir et al., 2019), climate change (Steiger et al., 2019), while others highlighted the threat of particular risk factors such as data protection in smart tourism (Masseno & Santos, 2018). Several scholars drew attention to the health risks of global tourism and considered diseases and pathogens as significant risk factors (Hindley & Marmion, 2019; Sönmez et al., 2019), due to the pandemic, the travel and tourism industry (T & T) has suffered a negative impact like no other sector of the overall economy. Even when the first restrictions entered into force, it was clear that recovery would take years. However, global tourism has recovered faster and more intensively than initially predicted. Despite the significant impact of COVID-19, T & T's performance in 2024 bounced back strikingly to 96% of its 2019 numbers. The importance of the sector is shown by the fact that its contribution to GDP has also grown since the crisis, increasing from 7.5% in 2022 to 9.1% in 2023. But T & T is an important segment not only because of its contribution to GDP or the remarkable spending of visitors (US\$ 5.4 trillion in 2024, WTTC, 2023a) but also because it operates an extended value chain. Of the companies that make up the sector, 99% are SMEs (Eurostat, 2023), with the truly small companies (employing 0-9 people) making up 90% of the food and beverage, accommodation, and travel service sector. The number of people employed by T & T-related companies reaches 350 million worldwide (WTTC, 2023b).

Beyond macro values, it is even more important that T & T hires a significant proportion of young people (15-24 years) compared to other sectors. In 2023, the T & T sector directly accounted for 4.3% of global youth employment and 3.6% of female employment, employing 18.7 million young workers – just 1% below 2019 levels – with its overall contribution, including indirect and induced impacts, supporting nearly one in ten youth jobs globally, even though the sector's share of global youth employment was only 0.3 percentage points lower than it had been in 2019. In developed countries, T & T jobs might be regarded as entry-level positions attracting young people, students, or those seeking part-time work. Despite the rapid growth of digitization, automation, and robotization, the tourism and hospitality industry is expected to be more labour-intensive than ever before. WTTC forecasts 110 million new job positions in the sector for 2033, 3.92 million of them in EU countries. It will take almost 12% of the total jobs globally and 13% in the EU (WTTC 2023b). The increasing demand for new joiners and young talents under the shade of the current labour shortage calls into question the sector's capabilities in human workforce supply alongside an aging society. A possible way to tackle the opposite

trajectories of labour demand and supply is that people from other sectors, with other skills, and from other countries and cultures flow into tourism. Looking back to 2019, Eurostat (2022) showed that 13% of employees in T & T were foreign citizens, half of them coming from non-EU countries. This proportion was 20% higher than in other service activities. People with different competencies, skills, national, and cultural backgrounds can weaken the growth prospects of T & T.

Besides social impacts, tourism and hospitality-related jobs became more challenging and stressful after COVID-19. To address this issue, Kwok (2022) advocates a stronger collaboration initiative and the improvement of talent acquisition and retention, as well as learning and development on both the industrial and educational sides. It is vital to clarify what is meant by desirable skills currently and what knowledge can be considered useful for the future. Besides re-conceptualizing necessary skills and knowledge, the redesign of the curriculum to train students and the workforce could be a current objective. A critical discussion by Morosan & Bowen (2022) outlines the strategic role of information technology-based solutions in hospitality business models. Although in most job positions and tasks, human labour cannot be replaced, the integration of digital solutions into business processes can simplify the enterprise operation at several points and help overcome difficulties caused by labour shortages.

## **2. Skills in tourism and hospitality**

The term competence refers to the quality or state of being competent in several ways (Merriam-Webster, 2025) such as: (a) the quality or state of having sufficient knowledge, judgment, skill, or strength, (b) legal authority, ability, or admissibility, (c) the knowledge that enables a person to speak and understand a language or (d) the ability to function or develop in a particular way, such as in embryology or microbiology. In legal, linguistic, and biological-functional terms, the quality of state helps conceptualising the required capabilities in work.

Besides knowledge, skill is the most organic part of competence. Butler (1978) defines skill as the ability to carry out an activity with a purpose and the proficient application of knowledge and process to a task. Baartman & Bruijn (2011) conceptualized the learning process regarding the integration of skills through low-road, high-road, and transformative integration. In this concept, skill can be considered acting in practice while involving motor and cognitive skills as well. Skills can also be distinguished in various ways: *hard* and *soft* skills are a widely used categorization of human abilities. Since the hard skills of each profession are declared by legislation, measurable and defined by educational programs (for instance, cooking techniques, serving dishes), academic studies usually examine and highlight soft skills. Brownell (1994) found listening to be the most, while group leadership the second most important skill for career advancement in the accommodation sector. Okeiyi et al. (1994) shared their empirical results from the field of food service operations. Their findings appear relevant even today since human relations, managerial skills, leadership, communication, and customer relations reached the highest ranks. Weber et

al. (2005) published comprehensive theoretical and exploratory studies about soft skills in hospitality management involving professionals from HR management in the US and investigating seven categories of skills: interpersonal, communication, counterproductive, performance management, political/cultural, leadership, and self-management. They identified five groups of personal traits and characteristics in hospitality management: team developer, coach, destroyer, problem handler, and influencer. Similarly, Sisson & Adams (2013) carried out a comprehensive literature review to detect essential competencies for entry-level managers in the field of lodging, food service, and event management. Skills were found to have the highest priority: developing positive customer relations, using computers effectively, working effectively with peers, professional behaviour and appearance, leadership abilities, written communication, critically using information for decision making, customer service problem resolution, managing personal stress, using ethics in decision making, delegation of tasks, facilitating teams and teamwork, knowledge of and compliance with legal and regulatory requirements and presentation skills.

Magalhães et al. (2022) conceptualised hard and soft skills through a wide range of academic literature. Despite the diversity of disciplines, hard skills have several common features: cognitive nature, the implication of previously gained knowledge, and are complemented by soft skills, which are behavioural characteristics influencing the application of hard skills into practice. Hard skills are often learned and developed through educational programs and qualification (Dixon et al., 2010), such as the tasks done by a cook, a waiter, or a receptionist. Hard skills are usually measurable and easy to compare, whereas soft skills can be compared only in an experiential way. Magalhães et al. (2022) also examined the perceived need to improve hard and soft skills among hospitality workers after the first lockdown of COVID-19. The research design involved linguistic and digital skills as hard skills, whereas communication, interpersonal relationship, flexibility and adaptability, conflict management, and teamwork as soft skills.

Skills differ vertically at different levels of responsibility in the hospitality industry. The spectrum ranges from the operative board, including un-skilled or semi-skilled positions, to top or middle-level leadership, including supervisory or managerial positions (Riley, 1996). At an operative level, technical and human skills are required and improved through routine tasks, while at a managerial level conceptual skills come to the fore (Katz, 1974). Conceptual skill may involve seeing the organization as a whole and recognizing the dependency of internal and external stakeholders. Brownell (1994) found communication and task delegation the most important skills for operative managers, while listening and information gathering proved to be essential for general managers.

In addition to knowledge and skill, the third element of competency is attitude. According to Butler (1978), attitude is a mindset or a disposition to react or act for a specified purpose. While knowledge frames *what* (declarative) and *how* (procedural) should be known, skills help to implement knowledge into practice, and attitude serves to carry out the task *well* and *properly*. The combination of knowledge, skills, and attitude

provides the competence required in a certain job position or for a particular task (McClelland, 1973).

The skills required to operate effectively can also be significantly influenced by the geographic location of the business. Dixon & Jovanovska (2022) focused on the frontline employees at a tourism business in a rural area in the US. Rural tourism development is critically important for business in areas far from bigger cities and clusters. They are facing a decreasing population, while the quality and skills of frontline employees are a major contributor to guest satisfaction. Dixon & Jovanovska (2022) applied the ‘developing a curriculum’ method involving frontline staff in a qualitative study. They identified some task-specific knowledge, such as knowledge of a product/service, food sanitation, safety or facility equipment. Based on their findings, we can distinguish some hard skills, such as computer, phone, cleaning, or analytical skills; as well as some soft skills, for instance, communicational, interpersonal, conflict resolute or creative thinking skills. Similarly, Hatz (2024) also highlights the vital role of frontline staff in gathering first-hand information about guest experience. According to Hatz, to increase the competitiveness of tourism and hospitality SMEs, innovation is necessary, which requires innovative behaviour at the managerial and executive levels through the development of skills such as abstract thinking, active listening, environment scanning, information gathering and interpretation, modelling, mental agility, and self-regulation.

Ineta (2015) investigated the necessity of some skills in five countries in Europe, inviting foreign language teachers and hotel managers into a quantitative-qualitative survey. It was found that communication, dialogical, and listening skills show the highest importance for both teachers and managers. Some skills demonstrated discrepancies between the two groups of respondents: managers rated leadership skills with a greater, and presentational, collaborative and intercultural skills with a lower average than did teachers.

Wilks and Hemsworth (2012) asked hotel managers in Portugal about the importance of 27 competences in the field of tourism and hospitality, of which 16 were found to be critically important. Being able to work in a team and having leadership and problem-solving capacity reached the highest mean. The lowest rated competencies were the ability to conduct a market study, IT system management, cooking skills, and environmental protection practices.

### **3. Next generation skills in tourism**

In 2020, the European Commission adopted a new industrial strategy to enhance green and digital transformation in selected industries in the EU. Tourism has been given a prominent role, since it operates a wide value chain, is a major employer, one of the keys to the development of rural areas. The impact of the pandemic on tourism has shown that the development of digital, social, and green skills is indispensable in preserving competitiveness. The Transition Pathways for Tourism guidance (European Commission, 2022) presents the focus areas of the transition through industry statistics, predictions, and conclusions, the focus points conceptualized as 27 topics. Three topics refer to education

and highlight the new skill set of employees: educational organisations to engage in developing and renewing tourism education; pack for skills in tourism; and awareness raising on skills needs for twin transition in tourism. The guidance suggests incorporating new skills profiles in training policy and curricula of vocational and higher education institutions as well.

Next Tourism Generation Alliance is a Europe-wide partnership established to detect and fill skill gaps in tourism and hospitality (NTGA, 2025). It provides a useful technical toolkit and an opportunity to collaborate for employees, job seekers, employers, SMEs, and educational institutions. The alliance is embodied in long-term projects such as Pack for Next Tourism Generation Skills (PANTOUR). PANTOUR (s.a.a) aims to map and define a set of new skills which may help industry actors to provide a competitive service-cape in a rapidly changing business, climate, and social environment. The specialised work areas of tourism can no longer be effective only through having the appropriate hard skills. A new workforce with a diverse social and cultural background, the eco-awareness of visitors, the need for resource efficiency, and state-led initiatives such as ESG compels businesses to continuously adapt and innovate. PANTOUR has identified soft skills to be developed along three focal areas: digital, social, and green competencies (PANTOUR, s.a.b). *Digital competencies* stand for data protection, privacy, netiquette and the appropriate evaluation of data, information and digital content. It also relates to artificial intelligence, virtual and augmented reality and robotics, the aspects of sharing, interacting, engaging and collaborating digitally. *Social competencies* stand for understanding, tolerating and accepting disability, religious, cultural and gender diversity, as well as the permanent change of social environment. It refers to the abilities that foster interpersonal cooperation: oral and written communication, awareness, active listening or ethics and respect. *Green competencies* focus on sustainability, climate change, reduction of food loss and plastic waste, and finally, internal and external communication of green efforts.

Carlisle et al. (2022) examined the digital, social and green skills by asking 1,404 experts from lodging and accommodation, food and beverage service, destination management organizations, tour operators and travel agencies, attractions and trainers. Their aim was to detect gaps between the present and future proficiency of particular skills. In the context of green competencies, the importance of the following skills was reported significantly higher for the future than the present: ability to minimise the use and maximise efficiency of energy and water consumption; ability to manage waste, sewage, recycling and composting; conservation biodiversity; promotion of sustainable forms of transport; promotion of environmentally friendly activities and products, and knowledge of climate change (Carlisle et al., 2022). Respondents considered artificial intelligence (AI) and robotics skills significantly more important for the future than in the present day. While applying digital hardware technologies, data analytics, business intelligence and big data, website development, computer programming, implementing online safety procedures, skills to monitor online reviews, social media skills, desktop publishing, online marketing,

adjustment of digital equipment, sound systems and video projector operations showed the smallest gap between present and future needs.

Regarding social skills, willingness to change, creativity, promoting a positive work environment and problem solving were reported as more important in the future than at present. Showing the same pattern among communication and cultural skills were ability to speak foreign languages, cultural awareness and expression, intercultural host-guest understanding and respect, and active listening (Carlisle et al. 2023).

#### **4. Research objectives**

The aim of the current research was to investigate the importance of skills derived from PANTOUR in the context of hotel restaurant service and from the point of view of the operative staff. In the fall of 2023 and spring 2024, an empirical study was conducted to answer the following research questions:

- RQ1: Which dimension of skills – social, digital, or green – is the most important for hotel restaurant staff members?
- RQ2: What skills show the biggest gap between current and future importance?
- RQ3: Is there any difference between the frontline (FL) and kitchen (K) positions regarding new soft skills?
- RQ4: Is there any difference between hotels located in the capital and outside the capital?

The study took place in Hungary and focused on the hotel restaurant segment because of the reliable definition of service design. According to the legal regulation of Hungary: *a hotel is a type of accommodation established solely for the purpose of providing lodging services, in which, in addition to lodging and breakfast, other services are also provided, and where the number of utilized rooms is at least eleven* (Government Decree No 239/2009).

The primary research gap is the missing comparative analysis of skill importance on a current and future scope; secondary, differing skill needs across distinguished operational roles, and lastly, revealing geographical differences. The research might contribute to assessing the importance of PANTOUR skills from the staff's perspective, which will provide some empirical insight. The current study targeted hotels having an F & B department, with a fully equipped restaurant facility. An F & B department is responsible for providing food and beverage service for hotel residents. Although breakfast is the only obligatory element of lodging activity, F & B departments usually provide a variety of dining services such as lunch, dinner, room service, lobby bar service, banqueting, or all-inclusive settings.

The F & B operation can be divided into two major segments: frontline (FL) and kitchen (K). The responsibility of FL staff typically covers the entire guest journey, from table reservation to personal greeting, taking order, serving to the post-purchase guest relationship. A key feature of the FL team is visibility: they are in constant personal and live contact with the guests, personifying the restaurant, and building a corporate image. The K crew is responsible for menu design, ingredients, food production, kitchen, and

maintaining service quality. K crew members are usually invisible – except for open kitchens and show cooking – rarely having direct personal contact with guests and working in a strongly hierarchical organization. RQ3 looked for significant differences between the skill priorities of the two work areas.

Geographical location was another key feature of research design. The inbound tourism in Hungary is largely Budapest-centred. According to the Hungarian Central Statistical Office (2024) in 2024, 51.8% of tourists spending more than one guest night in the country went to Budapest. The Western-Transdanubia region was the second most visited area with a 14.6% market share, followed by the Balaton region (11.4%). The other seven regions received a total of 22.2% of tourists. Based on these figures, a severe regional effect on tourism demand and supply can be detected. The tourism-business district usually shows better market potential, more promising economic growth, and a greater ability to retain workforce through higher salary. Due to geographical inequality, we assumed that there might be differences between what skills are important for workers in Budapest and outside of Budapest. However, workers far away from the capital must perform more complex and less diversified tasks because their job position might be concentrated due to a lower level of workforce drain. Answers to RQ4 help to confirm or refute this assumption.

## 5. Sampling and methodology

The data collection took place between October 2023 and May 2024 in two waves within the Tourism and Catering BA program at the Budapest University of Economics and Business. Peer groups of undergraduate students visited hotel restaurants to fill out the paper-pencil survey with members of the kitchen crew (cooks, kitchen assistants, dishwashers) and service staff (waiters, barbers, receptionists). The survey consisted of 17 statements for FL and 14 for K members to assess how important digital, social, and green skills are now and how important they will be in the future according to the respondents' rating the questions on a 7-point scale (1=Not important at all; 7=Very important). The questionnaire items are not from a validated measurement scale; therefore, they are unable to describe complex statistical relationships (e.g., structural equation modelling, discriminant analysis). Thus, data analysis is limited to examining only relevant and significant differences.

Table 1. Demographic characteristics of the sample

	Budapest	Non-Budapest	Total	Women	Men	Mean age
FL	27	32	59	31	28	31 years
K	30	33	63	21	42	35 years
Total	57	65	122	52	70	33 years

Source: Own editing.

A total sample of 122 respondents represented 18 hotels, 6 being members of a franchise or group, and 12 independent. The sample was non-representative, and no control variables were applied. As *Table 1* shows, 46% of respondents are employees of a Budapest-located hotel. FL and K departments are nearly equally represented: 48% versus 52%. Typical positions in FL were barman, hostess, receptionist, restaurant director, sales assistant, sommelier, supervisor, waiter or waitress, while the most frequent K positions were breakfast cook, chef de partie, commis chef, head of kitchen, helper, line-, pastry, and prep cook or sous chef. In terms of gender, men are more dominant in K, with a 63% share; whereas there were more women among respondents in FL.

## 6. Results

The research included two versions of the questionnaire, one for FL and another for K. Each version consisted of statements indicating specific green, digital, or social skills based on PANTOUR. In the analysis below, the letter code 'G' stands for green, 'D' for digital, and 'S' for social skills. *Table 2* summarises the survey report of FL in the descending order of current importance of skills: social skills dominate the high priority zone, while G and D skills are less important. Dimensional average reflects the same ranking: the sum of social skills is the most important (mean: 6.385, std. dev: 0.650), followed by green (mean: 5.236, std. dev: 1.017) and digital (mean: 5.028, std. dev: 1.464) dimensions.

*Table 2.* Descriptive statistics of skills in FL

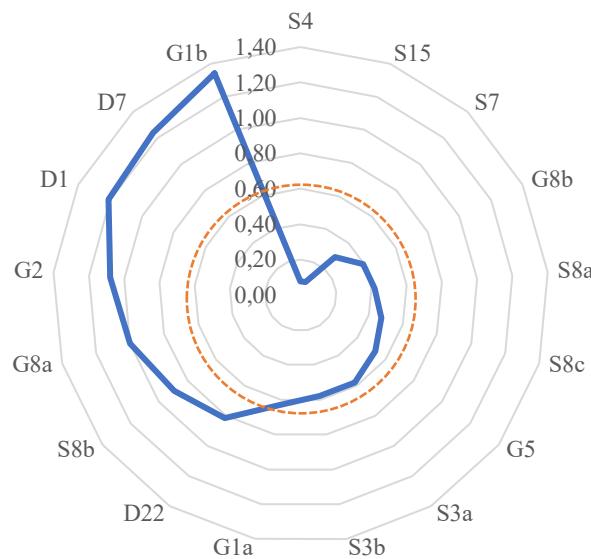
	FL	Mean of current importance (n=59)	Standard deviation	Mean of future importance (n=59)	Standard deviation	Related-samples Wilcoxon signed ranked test
G8b	Ensure team members adhere to hygiene requirements	6.441	1.005	6.763	0.652	< 0.001
S7	Demonstrate patience and be prepared to repeatedly answer similar questions	6.441	.836	6.712	0.617	< 0.001
S8a	Be as efficient as possible during every customer interaction	6.290	1.088	6.711	0.694	0.013
S8c	Work towards minimising the impact of factors that cause a bad experience for your guests	6.290	1.063	6.763	0.590	0.004
S3b	Advise guests of any ingredients that are known to be allergens	6.132	1.455	6.711	0.768	0.008
S3a	Check dietary needs with guests	6.119	1.520	6.560	1.087	< 0.001
G5	Monitor feedback from guests on the quality and availability of local products and services	6.102	1.140	6.576	0.814	< 0.001
G1a	Supervise loss control actions	5.593	1.555	6.203	1.310	< 0.001
D22	Use specialised software for managing bookings and sales effectively and efficiently	5.447	1.688	6.263	1.288	< 0.001

S8b	Provide a personalised service	5.263	1.688	6.158	1.366	< 0.001
G8a	Minimize the usage of water and energy	5.237	1.441	6.237	1.324	< 0.001
D7	Select and use a variety of appropriate digital communication means for a given context	4.949	1.756	5.932	1.363	< 0.001
D1	Find data, information and content through simple and well-defined searches in digital environments	4.898	1.689	5.949	1.345	< 0.001
G2	Skill to manage waste, sewage, recycling and composting	4.797	1.749	5.593	1.630	< 0.001
G1b	Communicate to guests usual energy and water conservation measures	3.085	1.860	4.254	2.022	< 0.001

Source: Own editing.

Besides *Table 2*, the difference between current and future importance is visualised in *Figure 1*. Compared to the average difference between future and current values (0.68) indicated by the dashed orange circle, S4, S15 and S7 show the lowest, while G1b, D7 and D1 show the biggest discrepancy. According to frontline respondents, treating disabilities (S4), non-verbal communication (S15), and patience (S7) will be as important in the future as they are now. On the other hand, communication about sustainability (G1b), digital communication (D7), and data-related skills (D1) will be highly valued in the future.

*Figure 1. Difference between future and current importance of skills in FL*



Source: Own editing.

Since the sample is not representative, a Wilcoxon-test was applied instead of the paired t-test to examine the differences between current and future importance. Overall, every variable is significantly different in *Table 2*.

We conducted the same tests on the K database. Compared to FL, where there is one outstanding skill dimension (social), *Table 3* shows a more alternating ranking for K. Although the means of social, green, and digital skills alternate, statements help to interpret the ranking. Apparently, in the case of FL, the most important skills revealed a strong guest focus, while cooperation within the organization and loss minimization dominate the K area. The means per dimension reflect a similar ranking, with the group of green skills being the most important (mean: 5.603, std. dev: 1.245), followed by social (mean: 5.305, std. dev: 1.096) and digital (mean: 4.921, std. dev: 1.706) skill dimensions.

*Table 3.* Descriptive statistics of skills in K

	K	Mean of current importance (n=63)	Standard deviation	Mean of future importance (n=63)	Standard deviation	Related-samples Wilcoxon signed ranked test
G8	Maintain food waste reduction and recycling	5.794	1.393	6.524	.877	< 0.001
S12	Ask people for feedback	5.794	1.381	6.175	1.040	< 0.001
G1	Minimise the use and maximise efficiency of energy and water consumption	5.778	1.276	6.413	0.816	< 0.001
S18	Demonstrate cultural sensitivity, including knowing that differences exist between cultures	5.444	1.564	6.016	1.264	< 0.001
D25a	Use digital technologies to realise and complete orders	5.270	1.815	5.905	1.467	< 0.001
G5	Getting ready with the availability of environmentally friendly products and services	5.238	1.682	6.032	1.204	< 0.001
D4	Use a variety of appropriate digital communication means for a given context	4.857	1.950	5.508	1.795	< 0.001
D25b	Information gathering with the use of technology in order to improve services provided	4.857	1.908	5.651	1.677	< 0.001
S17	Enhance your understanding of the needs of culturally diverse clients	4.810	1.908	5.270	1.936	< 0.001
D2	Use well-defined and routine appropriate digital technologies to share data, information and digital content	4.698	1.948	5.444	1.604	< 0.001

Source: Own editing.

The future importance of skills is also reported in *Table 3*, while the difference between current and future values is visualised in Figure 2. Compared to the average difference (0,55) indicated by the dashed orange circle, S11, S17, S4 and S16 skills show the lowest, while D25b, D4 and G5 show the biggest discrepancy. According to respondents from K,

maintaining a tidy workstation (S11), understanding cultural differences (S17), supporting people with disabilities (S4), and active listening (S16) will be as important in the future as they are now. On the other hand, use of technology for information gathering (D25b), digital communication (D4), and getting ready with environmentally friendly options (G5) will be valued more than currently.

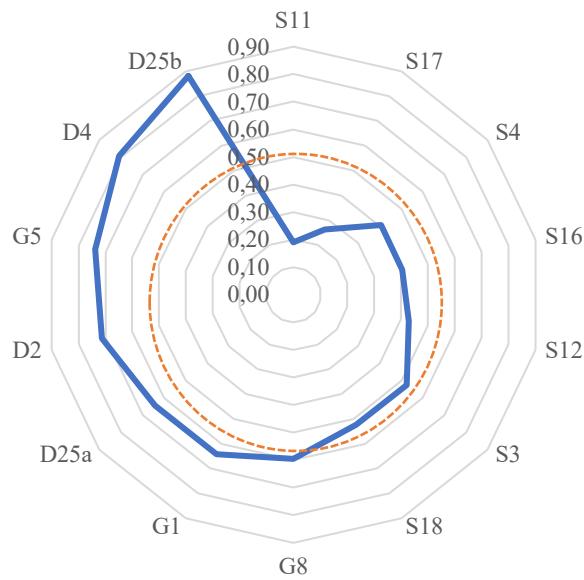


Figure 2. Difference between future and current importance of skills in K

Source: Own editing.

The Wilcoxon-test showed a significant difference between current and future values (Table 3). Therefore, 'D' and 'G' skills are considered more important in the future, while 'S' skills will be as necessary as they are now.

Based on the statistical analysis, the first research question (RQ1) can be answered as the most important social skills for frontline staff are those that help to interact with guests and result in higher service quality. Meanwhile, for kitchen staff, skills for efficient teamwork and minimizing loss are in first place. In both cases, 'D' dimension was ranked lower for the present but will have a significantly greater value in the future. In summary, 'S' and 'G' skills are the most important. Regarding the future (RQ2), 'D' and 'G' skills may show a significantly higher priority.

To investigate whether there is a difference between FL and K areas, we only compared those statements from the two questionnaires that are similar to each other. Therefore, a dataset of 14 statements was created. Table 4 demonstrates its descriptive statistics and ANOVA results.

Table 4. Comparison of FL and K areas

		FL	K	ANOVA F and p-value	$\eta$
G5 G5	Getting ready with the availability of environmentally friendly products and services (K) Monitor feedback from guests on the quality and availability of local products and services (FL)	6.102 (1.140)	5.238 (1.682)	10.871 0.001	0.288
G1 G1b	Minimise the use and maximise efficiency of energy and water consumption (K) Communicate to guests about usual energy and water conservation measures (FL)	3.085 (1.859)	5.778 (1.276)	87.955 < 0.001	0.650
S16 S15	Demonstrate application of active listening through effective body language (K) Make eye contact, smile, use of hands to emphasise speech, appropriate facial expressions (FL)	6.661 (0.685)	5.333 (1.685)	31.713 < 0.001	0.457
S4 S4	Provide accessible information to support the representation of people with disabilities (K) Treat all disabilities with respect and offer appropriate assistance (FL)	6.864 (0.472)	4.746 (1.967)	64.886 < 0.001	0.592
S3 S3a	Check dietary needs with guests (K) Check dietary needs with guests (FL)	6.119 (1.521)	4.683 (2.170)	17.708 < 0.001	0.359

Source: Own editing.

The analysis on work areas revealed that guest communication skills are statistically more important for frontline staff. According to respondents, communication about sustainable menu options, using effective non-verbal communication, respecting and treating inequalities, or asking about dietary needs are more part of the routine of guest areas. Kitchen staff are significantly more interested in implementing efforts to minimize material loss and communicating about environmentally conscious business practices. The answer to the third research question (RQ3) is that K staff is responsible for an economically and environmentally more efficient operation, while FL staff works for an enhanced guest experience.

Table 5 provides some statistically significant results on geographical differences between Budapest and non-Budapest locations (RQ4). In the latter case, compliance with hygiene regulations is more important, while in the former, reservation management and meal requests showed greater importance. In general, 'D' skills show greater importance, while 'S' skills have weaker importance in Budapest. For K staff, every significant relationship shows a higher priority in Budapest; thus, the skills for efficient organisational cooperation and operating with an environmentally conscious offer are more important. Based on statements related to social skills, we can assume that the staff of the capital's hotels work in a more culturally diverse community and that the daily routine is also more influenced by sustainable solutions.

Table 5. Comparison of Budapest and non-Budapest hotels

	FL	Budapest (n=27)	Non- Budapest (n=32)	Sample (n=59)	ANOVA F and p- value	η
G8b	Ensure team members adhere to hygiene requirements	6.148	6.688	6.441	4.473 p=0.039	0.270
D22	Use specialised software for managing bookings and sales effectively and efficiently	5.852	4.455	5.447	6.095 p=0.018	0.381
S3a	Check dietary needs with guests	5.593	4.677	6.119	6.522 p=0.013	0.320
	Digital skills dimension	5.444	4.677	5.028	4.245 p=0.044	0.263
	Social skills dimension	6.187	6.551	6.385	4.892 p=0.031	0.281
	K	Budapest (n=30)	Non- Budapest (n=33)	Sample (n=63)	ANOVA F and p- value	η
G5	Getting ready with the availability of environmentally friendly products and services	5.700	4.818	5.238	4.567 p=0.037	0.264
S17	Enhance your understanding of the needs of culturally diverse clients	5.300	4.364	4.810	3.966 p=0.050	0.247
S16	Demonstrate application of active listening through effective body language	5.800	4.909	5.333	4.653 p=0.035	0.266
S18	Demonstrate cultural sensitivity, including knowing that differences exist between cultures	5.900	5.030	5.444	5.191 p=0.026	0.280

Source: Own editing.

## 7. Conclusion

Despite the shock and uncertainty triggered by Covid-19, the latest statistics on tourism show that after a short recovery period, the industry is more promising than ever before. Although nowadays most business activities look for the challenges of digitization and automation and express concerns about them, companies in tourism and hospitality still have to prepare for labour-intensive service solutions in the long run. Beneficial as this may be for those currently working in the sector, it might be the biggest risk in terms of growth. Professionals, investors, and professional organisations alike predict a drastic increase in the need to travel and relocate, as it has now become an indelible internal need of individuals. All this can only be achieved if properly trained and skilled personnel await visitors. The labour demand of tourism and hospitality for a drastic number of the workforce can only be met by a rapid inflow of people with diverse geographical, social, professional and cultural backgrounds. The integration of inexperienced new recruits, the effective cooperation within the industry, and the unpredictably changing needs of visitors all require the permanent development of soft skills in addition to expected hard skills.

The results of the present study proved that frontline staff is still the most responsible for a satisfactory personal impression. Their social skills influencing guest experience are important now and will continue to be so in the future as well. The results prove that frontline workers recognize the benefits of digital service support and the need to use it in effective service delivery. Digital solutions can make business processes more efficient and also create a more balanced workplace environment. Therefore, incorporating them into the skillset of employees is the current responsibility of both employers and education. Their future appreciation is even more relevant for those working in the kitchen area by making background processes more efficient, more cost-effective, and environmentally sound.

A striking difference is that digital skills are already more important for respondents working in the capital compared to respondents far away from the capital. This can be explained by the fact that the most innovative solutions are typical in economically prosperous areas facing a higher tourist volume, but it can also be a sign that some market participants have not yet exploited the potential of digital devices. The study has several limitations, mainly the fact that the survey was conducted in a specific work area. The reason for the choice was to create the possibility of comparison with other samples from other countries. At the same time, this limitation is also an opportunity to test this method in various forms of tourism and hospitality activity.

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