ЦИФРОВЫЕ НАВЫКИ ДЛЯ РАЗВИТИЯ ТЕКСТИЛЬНОЙ, ШВЕЙНОЙ И ОБУВНОЙ ПРОМЫШЛЕННОСТИ

DIGITAL SKILLS FOR TEXTILE, APPAREL AND SHOE INDUSTRY DEVELOPMENT

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РЕФЕРАТ

НАВЫКИ ПЕРСОНАЛА, ОЦЕНКА НАВЫКОВ, НЕСООТВЕТСТВИЕ НАВЫКОВ, РАЗВИТИЕ ПЕРСОНАЛА

В статье навыки персонала рассматриваются как источник конкурентных преимуществ. Установлено, что в условиях цифровизации экономики повышаются требования к навыкам персонала, труд становится гибридным, отсутствие цифровых навыков тормозит процесс цифровой трансформации, которая необходима легкой промышленности для поддержания конкурентоспособности. В статье приведены результаты исследования навыков персонала швейного предприятия, проведенного методом опроса на основе авторской анкеты. В рамках исследования на основе самооценки персонала проведены оценка востребованности навыков на конкретном рабочем месте, оценка недостающих и требующих совершенствования навыков, а также заинтересованности персонала в их освоении и развитии. Методический подход апробирован на примере швейного предприятия и позволяет выявить несоответствия навыков, а также сформировать программы обучения персонала, направленные на снижение несоответствия и обеспечивающие развитие конкурентных преимуществ организации через повышение соответствия навыков требованиям рабочих мест.

ABSTRACT

STAFF SKILLS, SKILL ASSESSMENT, SKILL MISMATCH, STAFF DEVELOPMENT

In the article, staff skills are considered as a source of competitive advantages. It has been determined that in the context of the digitalization of the economy, the requirements for staff skills are increasing, labor becomes hybrid, the lack of digital skills slows down the process of digital transformation, which is necessary for textile, apparel and shoe industry to maintain competitiveness. The article presents the results of a study of the staff skills at an apparel enterprise, conducted by a survey method based on the author's questionnaire. In the study framework, based on the self-assessment of staff, an assessment of the demand for skills in a particular workplace, an assessment of the mismatch and requiring improvement skills, as well as the interest of the staff in skills development have been done. The methodological approach has been tested on the example of an apparel company and allows to identify mismatches of skills, as well as to create staff training programs aimed at reducing the mismatch and ensuring the development of the organization's competitive advantages by increasing the matching of skills to the requirements of jobs.

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Introduction

The textile, apparel and shoe industry of Belarus occupies 3 % in the structure of the manufacturing industry and has good growth potential. However, it requires the formation of new competitive advantages, non-standard solutions and breakthrough innovations for its development and expansion. The most urgent tasks for the enterprises of the textile, apparel and shoe industry in Belarus are to ensure the intensification of the production of intensively updated goods and the reduction in the cost of products made to order, which can be solved by transforming to a digital model of the factory. One of the factors threatening the digital transformation of enterprises and the economy as a whole is the lack of digital skills among staff.

Staff skills as a source of new competitive advantages. Skill mismatch

One of the key factors of competitive advantages of a new type are the relevant skills of the staff. The results of a survey conducted by the International Recruiting Company HAYS in 2020 among 5,153 respondents (286 employers, 68 % of which are international companies, and 4,867 professionals) showed that the most important skills that affect competitiveness are strategic thinking, persuasion skills, working with people and working in a team. According to the results of the "Competence Foresight 2030" study, conducted in 2014 by the Moscow School of Management SKOLKOVO and the Agency for Strategic Initiatives, when preparing specialists for the future labor market, one should rely on skills and competencies that are in demand in the future, and not on professions, because due to high dynamics of the labor market many professions of the future does not exist yet.

The recent studies analysis has shown that nowadays serious attention is paid to the study of existent competencies and skills of staff, which is explained by their continuous development, taking into account the digital transformation of society [1, 2, 3]. Nevertheless, the issues of systematization of the main groups of digital skills require more detailed consideration.

Under the digital transformation, work becomes hybrid, it requires a combination of digital, technical, social and cognitive skills. The acquisition and development of these skills during the period of employment plays an important role in increasing the competitiveness of the enterprise and its employees, is a source of new competitive advantages and a business growth factor. The digital transformation of the economy and the growing demand for hybrid skills are creating a gap between the demand for skills and their supply in the labor market. So, organizations should take the role of the initiator for in-demand skills of the staff development, be ready to identify gaps (mismatches) of skills and invest in the appropriate training programs to eliminate or reduce these gaps.

Researchers note that staff should have skills that are complemented but not displaced by automation: cognitive, social, technical [3, 4]. In conditions when much of specialized professional knowledge quickly becomes obsolete and is replaced by new one (it is easier to teach a person with suitable soft skills from scratch), it is not the possession of this unique knowledge and experience that comes to the fore, but the basic skills that are important for absolutely any field. They are called soft or flexible (logical and critical thinking, creativity, the ability to build relationships with people, adaptability to change, etc.).

Researchers believe that it is becoming increasingly important for businesses and workers to keep skills up to date. Some of the skills that are in demand today did not exist 10 years ago [2, 5]. In recent years, matching skills to jobs has become a policy priority. Some skill mismatch is by the nature of things, as the labor market involves complex decisions by employers and workers, and also depends on many external factors. But high and persistent skills mismatch is costly for employers, workers and society at large. Behind it, there may be a shortage of skills, as well as obsolescence of skills or work not in the specialty - and these types of mismatch have different causes and ways of measuring [1].

Differences in the types of skills mismatch are due to significant differentiation in its qualitative interpretation and quantitative assessment. The problem of skills mismatch is widely discussed in OECD countries. The STEP (Skills to Employability and Productivity) Skills Study suggests that even in low-income countries, many workers are over-

skilled for their jobs and fail to make full use of their skills. Quality of education and training is essential, but skills mismatch also has an impact on the overall health of the labor market.

Results of an empirical study of staff skills at an apparel enterprise

The study of skills carried out at an apparel enterprise with a staff of 471 people, in the form of a survey based on the author's questionnaire. The study involved 60 people (10 managers, 17 specialists, 33 workers), which ensures the representativeness of the sample with a confidence interval of 10% and a confidence level of 10 %.

The survey uses one of the classifications accepted in socio-economic studies, according to which skills are divided into professional (hard) and flexible (soft). In turn, soft skills are divided into cognitive, social, personal and managerial (Table 1) [3, 6, 7].

Employees of different categories were asked to assess the demand for each skill on a five-point scale, and to conduct a self-assessment of skill mismatch. It was also possible to supplement the proposed list of skills with their own.

Among managers, the most demanded skills are the ability to make decisions in non-standard situations, the skills of planning, organizing, managing and evaluating work, analytical thinking, the ability to mobilize the abilities of others, labor discipline and communication culture. In general, this corresponds to the profile of managers. The least demanded in this category of respondents are the ability to work productively in a team, the ability to work well under pressure, awareness in related areas of the acquired specialty, the ability to develop new ideas and solutions (Figure 1). This indicates the firm's reluctance to new ideas and low innovation activity.

Table 1 – Description of the skills used in the survey

Skill code	Skill type	Skill name
1	Hard skill (professional)	Mastering knowledge in your field / subject area
	Soft skills	
2	Cognitive	Ability to apply knowledge in practice
3	Personal	Ability to improve
4	Cognitive	Ability to develop new ideas and solutions
5	Personal	Ability to adapt to changing conditions
6	Personal	Ability to make decisions in non-standard situations
7	Personal	Analytical thinking
8	Cognitive	Ability to analyze information
9	Managerial	Skills for planning, organizing, managing and evaluating work
10	Personal	Willingness to question your own and others' ideas
11	Managerial	Ability to work effectively to achieve the goal
12	Managerial	Ability to organize your work processes efficiently
13	Personal	Ability to work well under pressure
14	Social	Ability to work productively in a team
15	Social	Ability to mobilize the abilities of others
16	Social	Level of foreign language proficiency
17	Managerial	Labor discipline and communication culture
18	Cognitive	Awareness in related areas of the received specialty
19	Social	Self-presentation skills

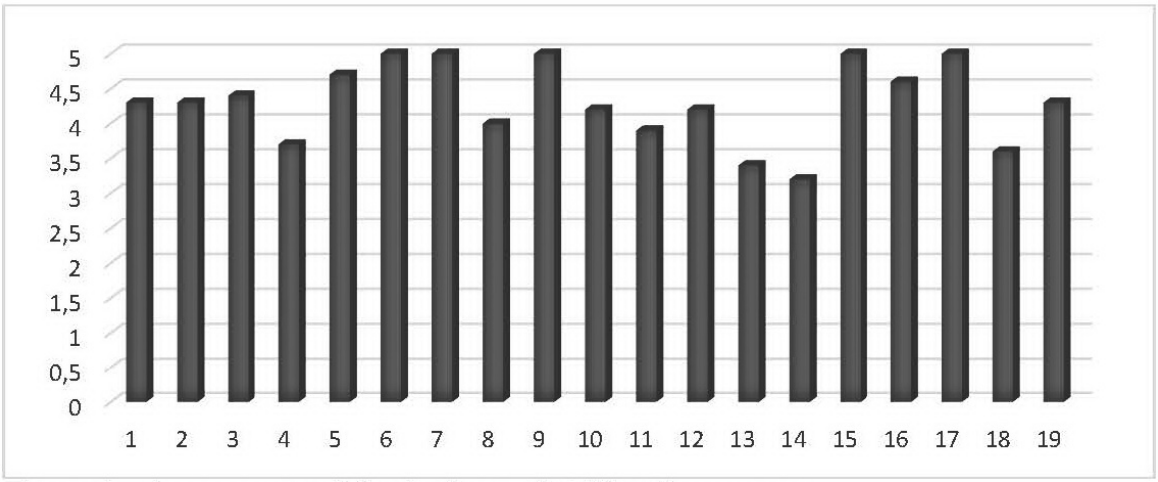

Figure 1 – Assessment of the in-demand skills of managers

Source: survey results.

Among the skills mismatched among managers, according to the results of their self-assessment, are the ability to develop new ideas and solutions, the ability to work productively in a team, the ability to work well under pressure, and awareness in related areas of the acquired specialty (Figure 2).

These are exactly the skills that, according to this category of workers, are the least in demand in their workplaces.

Economists, engineers, technologists, cutters and others were interviewed among specialists in the clothing industry. The work experience

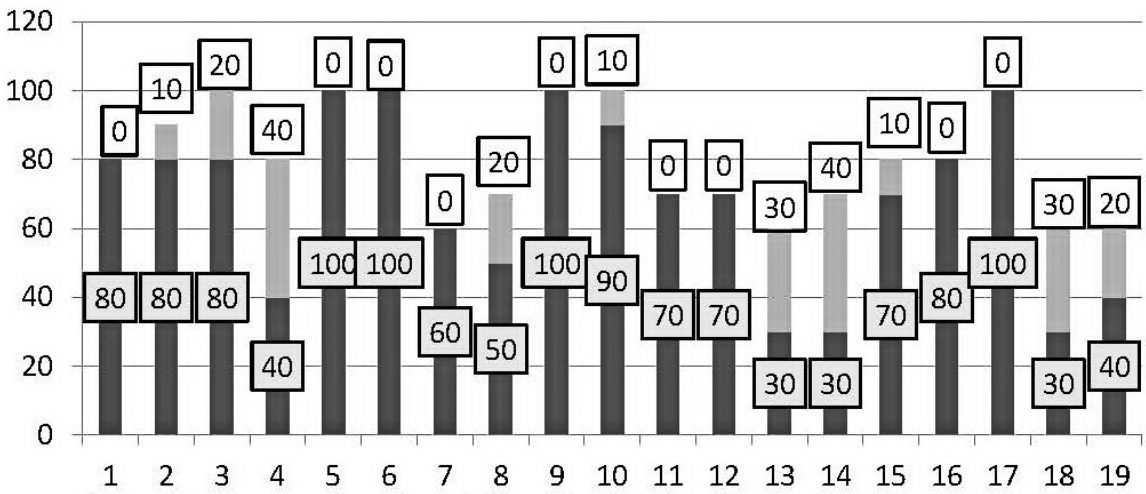

Figure 2 – Assessing the skills mismatch of managers

Source: survey results.

of personnel in this group is from 1 to 10 years, mostly up to 5 years. Employees claim that they are satisfied with their work and have the opportunity for career growth. 70 % of the respondents answered that they have a very high degree of use of the skills and knowledge gained in the learning process, but 30 % say that their knowledge and skills are not used at all. As the most demanded skills among specialists, the ability to apply knowledge in practice, labor discipline and a culture of communication, mastery of knowledge in their subject area, the ability to work effectively to achieve a goal were noted. The least significant skills turned out to be: the ability to develop new ideas and solutions, the willingness to question one's own and others' ideas, the ability to make decisions in non-standard situations (Figure 3). And this despite the fact that technologists responsible for the development of new ideas for making clothes were interviewed among specialists, and technologists were interviewed among specialists whose duties include developing new ideas for making clothes.

The skills mismatched among specialists are the following: the ability to develop new ideas and solutions; the ability to adapt to changing conditions; the ability to mobilize the abilities of others; awareness in related areas of the acquired specialty (Figure 4).

In the block with skills that are not in the questionnaire, but are necessary for the positions held, specialists indicated the creation of sketches and designs of new products, the manufacture of patterns, the selection of materials and accessories, market monitoring, searching for new customers, the preparation of documentation. Skills that are necessary, but not available for the interviewed specialist, were the level of foreign language proficiency, modeling the form of clothing, developing the concept of the collection and individual products, awareness in related areas of the received specialty.

Among the workers, sewers of different age categories were mainly interviewed, most of them have secondary specialized education. Young workers noted that they were not satisfied with their work and there was no opportunity for career growth. Skills analysis showed that the knowledge and skills acquired in the study are partially used. But there are also answers with a very high degree of use. The most demanded in this segment were knowledge in the subject area, the

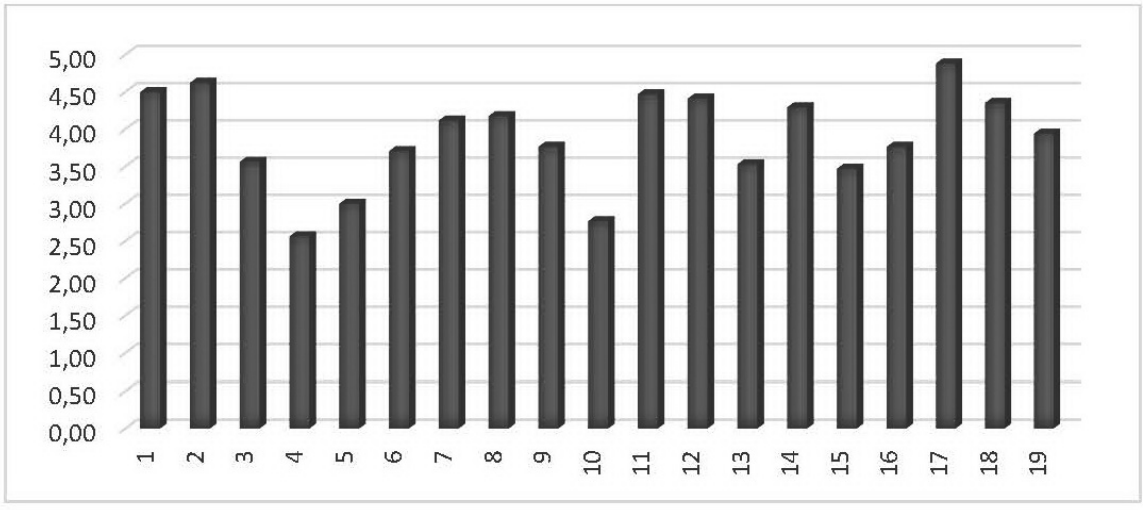

Figure 3 – Assessment of the in-demand skills of specialists

Source: survey results.

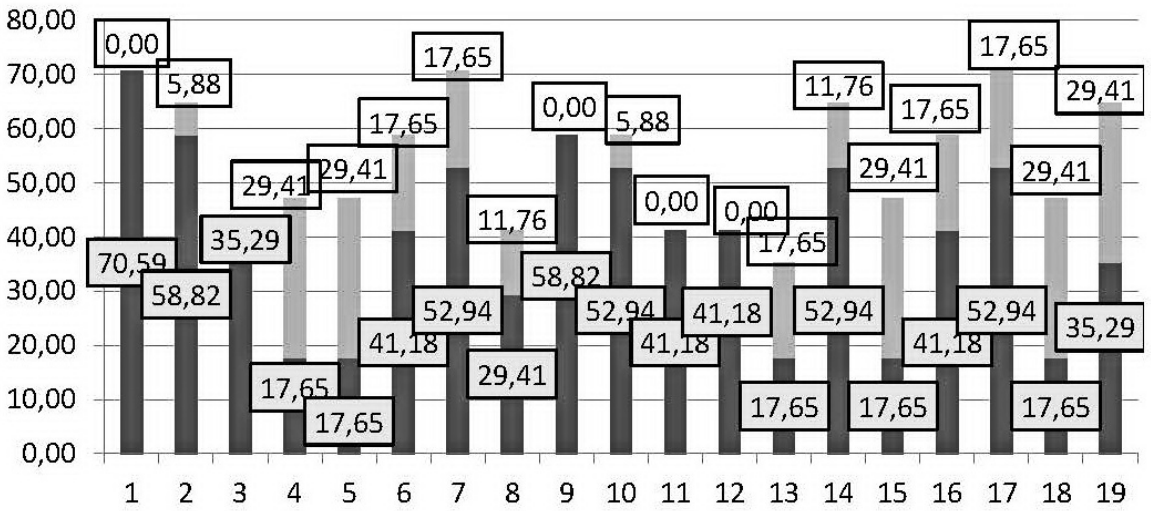

Figure 4 – Assessing the skills mismatch of specialists

Source: survey results.

ability to organize their work processes effectively, the ability to apply knowledge in practice. The following were the least demanded skills: self-presentation skills; the level of foreign language proficiency; the ability to analyze information; the willingness to question one's own and other people's ideas (Figure 5).

Among the skills that workers lacked the most part constitutes: the ability to constantly improve; the ability to analyze information; the skills of

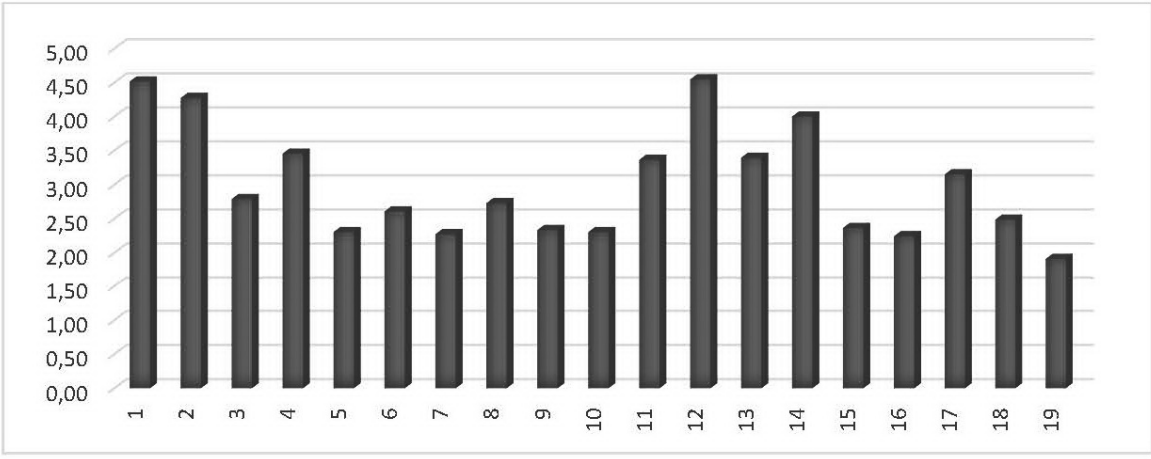

Figure 5 – Assessment of the in-demand skills of workers

Source: survey results.

planning, organizing, managing and evaluating work; self-presentation skills (Figure 6). It should be noted that in the category of workers, the largest mismatch is also observed in the least demanded skills.

In the block with skills that are not in the questionnaire, but are necessary for workers, there were indicated cutting fabrics, setting up sewing techniques; tailoring, fitting and finishing clothes, knowledge of the characteristics of different types of fabrics, the ability to use sewing equipment, attentiveness and a good eye, accuracy, patience. Skills that are necessary but not available for workers are as follows: the ability to make decisions in non-standard situations; awareness in related areas of the acquired specialty; the ability to work productively in a team; the ability to use a computer; the ability to select the appropriate material and accessories.

The results of the survey also show that the staff of the organization have a desire to develop and acquire new skills and knowledge. Interest in improving skills and professional growth was expressed by 67 % of respondents; the remaining 33 % are mainly people at the age over 55 years old.

In general, it should be noted that the demand for soft skills among workers is much lower than among managers and specialists, which confirms the opinion of most specialists.

The results of the study can be used in the development of training programs for staff, and can also be used for career management. When evaluating staff skills and skills mismatch, in addition to self-assessment, the opinion of the manager can also be taken into account.

Development of digital skills for the transition to a digital enterprise model

From the standpoint of the new competitive advantages development, such challenges of the digital economy as a radical technological revolution, new ways of interacting with consumers, new opportunities for the value chains development, the development of communication forms create new sources of competitiveness of enterprises, in particular: the introduction of

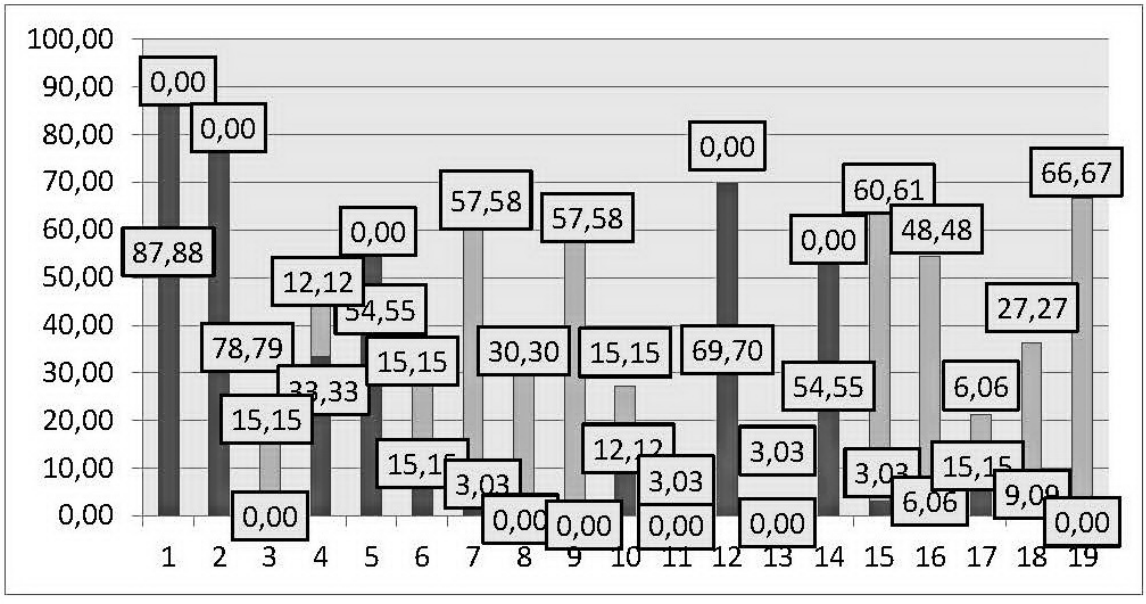

Figure 6 – Assessing the skills mismatch of workers

Source: survey results.

breakthrough technologies in the enterprise's activities; the CRM databases development; digital services; systemic transformation of value chains; complex cross-functional integration in decision-making at all levels [8].

Today, large enterprises in the textile, apparel and shoe industry are accumulating the potential for digital transformation, an important component of which is staffing [9]. Digital transformation requires employees to master new skills and competencies. In this case, an increase in labor costs is possible, since investments in staff training are necessary. To master digital technologies, industry enterprises need to integrate with educational competence centers for digital transformation and light industry. For this, the experience of European countries in creating training centers for training industrial staff in digital skills and competencies can be useful. An example of such cooperation is the Digital Opportunity Center (DCC) and the ITA Academy in Aachen, Germany, which combined the competencies of light industry specialists and IT companies to strengthen the potential of digitalization.

Digital skills can be defined as acquired literacy, including personal, technical and intellectual habits that are necessary for adaptation in a digital society [10].

It should be noted that in the study conducted, not a single survey participant indicated the demand for digital skills in work. Most likely, this can be explained by the fact that the studied enterprise has not yet begun the process of digital transformation, and its leaders have little idea of all the advantages and possibilities of this transition.

Modern studies [7, 11] note that the lack of digital skills of staff is a key factor threating the process of digital transformation of enterprises and industries. Digital skills are most developed in the field of IT, while their penetration into other industries is complicated by the need to apply them in a specific area along with professional skills. This gap can only be bridged through the mutual exchange of knowledge and skills between industry and IT.

The main skills for an effective digital transformation identified via online survey [11] were artificial intelligence, nanotechnology, robotization, internet of things, augmented reality, digitalization; and the main digital learning contexts were mobile technologies, tablets, and smartphone applications — which are becoming more and more popular among the employees. This study will help organizations to rethink their strategies according to skills development to respond to the challenges of digital transformation.

Taking into account current trends in socio-economic development and the digital transformation of society, the changing nature of work and the emergence of new forms of employment, the requirements for the level of professional competencies of employees are constantly increasing and becoming more complex. That requires the development and application of new forms, methods of training and development of staff, as well as combining efforts of industrial and IT specialists.

Conclusions

The development of professional competencies and skills of staff is one of the most important factors that is necessary to increase the level of competitiveness of the domestic economy. Staff skills are becoming a key factor in the competitiveness of an organization, skills upgrowth requires the development of special training programs for staff, as well as investments in HR for their implementation. The lack of digital skills of the staff is a key factor holding back the process of digital transformation of enterprises and industries. To master digital technologies, industry enterprises need to integrate with educational competence centers for digital transformation in the textile, apparel and shoe industry.

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