



RELATIONSHIP BETWEEN ONBOARDING PROCESS AND ORGANIZATIONAL CULTURE IN THE PHARMACEUTICAL INDUSTRY IN NORTH MACEDONIA

Tane Murgoski*

School of Business Economics and Management, University American College,
Skopje, North Macedonia

Abstract:

Using the Voice of the Organizations (Vox) instrument, this paper examines the relationship between the onboarding process and organizational culture in the pharmaceutical industry in North Macedonia, with particular reference to drug manufacturing companies. The four-dimensional Vox model has been extensively utilized and focuses only on the four designated types of organizational culture. A total of 228 responses were collected and analyzed using SPSS software by distributing online questionnaires to employees in drug manufacturing companies in North Macedonia. The results indicate that Entrepreneurial Democracy is the most preferred organizational culture during their onboarding process. Moreover, the analysis investigates the impact of generational differences, work experience, and job categories on perceptions of organizational culture in greater detail. Diverse aspects exhibited significant differences, highlighting the need for organizations to address specific dimensions during the onboarding process to foster a positive work environment. Overall, this study contributes valuable insights into the relationship between the onboarding process and organizational culture in the pharmaceutical industry, laying the groundwork for future research and providing organizations with practical implications.

Article info:

Received: March 03, 2023
Correction: July 13, 2023
Accepted: September 14, 2023

Keywords:

organizational effectiveness,
onboarding,
organizational culture,
pharmaceutical industry

INTRODUCTION

Due to its potential influence on employee integration, engagement, and performance, the relationship between the onboarding process and organizational culture has attracted considerable focus (Bauer *et al.*, 2007; Akkermans *et al.*, 2023). In addition, the onboarding process is an essential tool for transmitting and reinforcing the desired organizational culture. When new employees are exposed to the organization's values, norms, and practices, they are more likely to internalize and embody these cultural elements in their work behaviors (Canning *et al.*, 2019).

*E-mail: murgoskitane@yahoo.com





A robust organizational culture that emphasizes patient safety, scientific rigor, and ethical decision-making is essential in the pharmaceutical industry.

In the pharmaceutical industry of North Macedonia, the relationship between onboarding and organizational culture becomes even more crucial. In recent years, the pharmaceutical industry in North Macedonia has expanded swiftly, fueled by rising investments in research and development, production, and exports. Organizations confront the challenge of attracting and retaining qualified professionals who can contribute to the expansion and success of the industry as it grows. In this context, a successful onboarding process that fosters a positive organizational culture could provide pharmaceutical companies operating in North Macedonia with a competitive advantage.

To date, there needs to be more research examining the relationship between the onboarding process and organizational culture, specifically in North Macedonia's pharmaceutical industry. This relationship becomes especially important in the pharmaceutical industry, where a robust organizational culture is essential for assuring compliance, quality control, and innovation. By reviewing the existing literature on onboarding and organizational culture, this study seeks to fill this research gap and contribute to a deeper understanding of how the onboarding process can influence the organizational culture in the pharmaceutical industry in North Macedonia.

ORIENTATION AND ONBOARDING

Definition of orientation and onboarding

In the past, orientation for new employees was often referred to as "induction" or "organizational socialization." In modern parlance, one may refer to this process as "onboarding" (Dessler, 2013; Becker and Bish, 2021).

According to Arachchige (2014), induction is considered the initial opportunity for the organization to educate new employees about cultural norms, values, and work ethics. On the other hand, Frögéli *et al.* (2023) described organizational socialization as the learning process by which newly hired employees adopt attitudes and behaviors essential to perform as full-fledged company members. New employee orientations are typically conducted during the first few weeks of employment (Raub *et al.*, 2021).

The current body of research offers a plethora of definitions for onboarding, each of which is unique concerning the language used and how sentences are constructed. Despite this, they all communicate the same core idea differently. Sims (2018) describes onboarding as a process that helps employees understand how to be successful in their everyday job. Moreover, he explains that onboarding is a long-term process that helps employees understand how to be successful in their everyday job and how their effort contributes to the general success of the business. Bradt and Vonnegut (2009) employs somewhat more elevated terminology while concentrating on the sequential phases. They characterize the onboarding process as beginning with recruiting new employees, then moving on to accommodate them, integrating them into the work already being done, and finally, speeding up the process.



Importance of orientation and onboarding

The process of employee orientation and onboarding is crucial for the success of a business (Singh, 2019). In addition, Blount (2022) acknowledges that it helps new employees adjust to their new job environment and sets the tone for the rest of their time at the company. Soomro and Shah (2019) discovered that orientation training had a favorable impact on a worker's dedication to a company. By emphasizing job orientation and onboarding, firms can boost employee engagement and contribute to their employees' long-term success. In addition, employees who attended the orientation training showed considerably more significant levels of emotional and organizational commitment than employees who did not attend the orientation.

Bauer *et al.* (2007) employed meta-analytic and path modeling methodologies to assess a theoretical framework concerning the factors influencing new hires' adjustment. The researchers examined a total of 70 unique samples of newly hired individuals to investigate the antecedents and outcomes associated with this process. In a more precise manner, they tested a theory that put forward that the process of adjustment, which includes role clarity, self-efficacy, and social acceptance, acted as a middleman between the effects of organizational socialization tactics and information-seeking on different socialization outcomes, such as job satisfaction, organizational commitment, job performance, intentions to stay, and turnover. On the other side, other viewpoints were presented, and these were in direct opposition to the psychological perspective. Antonacopoulou and Wolfgang Guttel (2010) presented a practical perspective that included a variety of other topics about Human Resource Management (HRM), organizational memory, and organizational routines. They emphasized the significance of investigating the linkages between staff induction, socialization, and organizational recreation by concentrating mainly on learning and information. This allowed them to recognize the value of gaining new skills and information. They emphasized the dynamics of both the induction and socialization of staff members. In their view, a practicing viewpoint recognizes conflicts as an inevitable component of the whole and accepts them as such.

This suggests the ongoing significance of refining and enhancing onboarding processes to ensure a positive and practical experience for new employees, ultimately contributing to their integration into the organization and success in their roles.

ORGANIZATIONAL CULTURE

Concept and definition of organizational culture

Pettigrew first used the phrase organizational culture in 1797 in "Administrative Science Quarterly" (Ilies and Gavrea, 2008). However, over the past four decades, the idea of organizational culture has matured and gained widespread acceptance. This period is distinguished by the publication of a significant number of books, articles, and authors of papers on the subject of organizational culture. The purpose of these works is to shed light on the phenomenon of organizational culture and to recognize the latent causality of its formation, development, and influence on a prosperous business organization. Many descriptions can encompass all aspects of organizational culture and thus define it. However, a single definition of organizational culture does not exist.



All definitions differ depending on the point of view from which one examines this term. This could be in academic fields such as sociology, psychology, or anthropology, or it could be in organizational behavior, the science of management, or organizational communication. However, Schein (2004) defines organizational culture as a set of fundamental underlying assumptions that define what we must pay attention to, what things mean, how to emotionally react to what is occurring, and what actions to take in many circumstances. Furthermore, according to Bojadziev (2019), the concept of organizational culture can be understood as an implicit framework comprising a set of principles and standards that govern the dynamics of interpersonal relationships, conduct, the formulation of choices, and operational procedures within corporate entities.

Based on this discussion, the conclusion is that organizational culture is the primary distinguishing feature of every company. This culture may be defined as the norms and standards by which things are managed inside an organization. How people think, feel, and behave in a company is all influenced by its culture. Culture is the most valuable asset, and it is this asset that needs to contribute more than anything else.

Importance of organizational culture

Bojadziev and Krliu (2007) explain that the values of the founder or leader are the primary source of organizational culture. Organizations attempt to fit employees into their organizational culture through the selection process. The optional nature of integrating newcomers into the community, which encompasses establishing a process for their integration and implementing a dress code as a community component, is a pertinent consideration. The situation with work conditions and turnover areas do not prioritize addressing these issues in their culture.

Bradt and Vonnegut (2009) describe some of the most effective strategies for introducing new workers to organizational culture, conventions, and techniques to make it feasible for newcomers to start contributing to the company as soon as possible. Inadequately orienting new hires might make them feel unsatisfied on the job, but it can also be detrimental to the business. Furthermore, they explain the Total Onboarding Program, which advises on rapidly and effectively training new hires, eventually resulting in organizational success.

In a study by Coff and Kryscynski (2011), they explain from a human resource viewpoint, the extent to which new hires can be taught company's explicit knowledge, comprehend the culture, and identify other distinctive aspects of the company, the faster and the far-reaching extent to which they can play a part to the success story and competitive advantage of the company.

Pavlova (2023) highlighted the pandemic-induced significant shifts in organizational culture within higher education institutions in North Macedonia, underscoring the pivotal role of adaptable attitudes and balanced tactics in fostering resilience amidst crises. This suggests that organizational culture is not only a reflection of the institution's values and norms but also a key determinant of its ability to navigate and adapt to challenging circumstances, ultimately shaping its capacity for long-term sustainability and success.

Mileva and Hristova (2022) suggest that organizations should use established models developed by reputable authors or internal methodologies to evaluate their organizational cultures. Additionally, they emphasize the importance of maintaining alignment and consistently pursuing improvement in order to enhance organizational efficiency and ensure long-term sustainability.



As the workforce undergoes a generational transition, its practices, behaviors, values, and beliefs also change. As a result, onboarding has become an essential process in today's businesses. It helps new employees adjust to social and performance norms and introduces them to their new job. This enables them to understand the company's objectives, standards, policies, processes, and organizational culture. Therefore, it is crucial to analyze and identify the importance of effective onboarding and its correlation with a productive organizational culture.

Organizational culture in the onboarding process

The organizational culture plays a crucial part in the onboarding process because it sets the tone for new workers and establishes expectations for their behavior and performance. A strong organizational culture can facilitate the incorporation of new personnel, whereas a desirable culture might result in clarity and satisfaction. Moreover, a healthy business culture can boost employee engagement, job happiness, and overall performance (Robbins and Judge, 2017).

According to Cooper-Thomas *et al.* (2012), effective onboarding programs aim to expedite the process by which new hires acquire the necessary skills to do their jobs effectively. Moreover, they explained that this is accomplished by assisting new workers in identifying their specific roles, responsibilities, and activities.

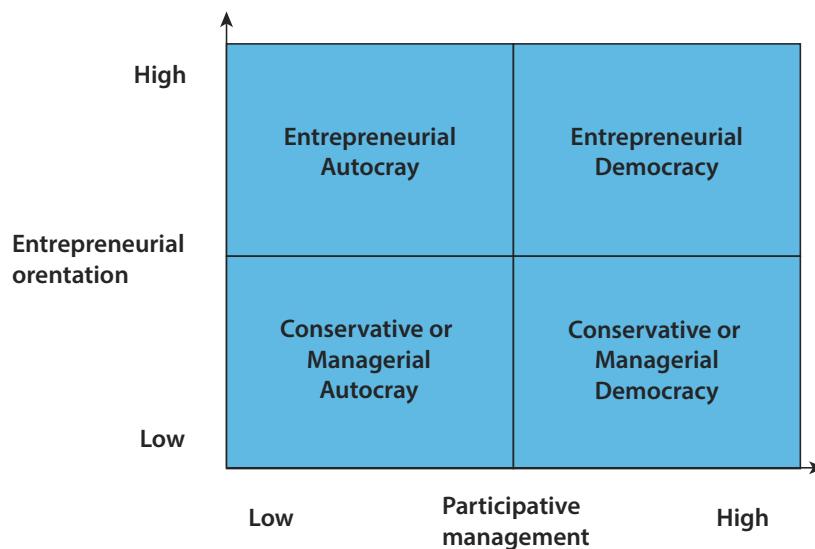
This suggests that organizational culture plays an important part in onboarding because it sets the tone for new workers and establishes expectations for their behavior and performance inside the firm. A healthy and robust organizational culture may boost employee engagement, job satisfaction, and performance as a whole. In addition, a good onboarding process that matches the corporate culture may assist new workers in comprehending and embracing the organization's values, norms, and expectations.

METHODOLOGY

The Vox instrument for organizational culture was first introduced in 2011 to evaluate the degree of alignment within an organization. The etymology of the term can be traced back to its Latin origins, where "Vox" denotes "voice" and "Organizations" signifies "organization." Hence, the term "Vox Organizations" denotes the vocal representation of various entities within an organizational context. Furthermore, the theoretical framework was established based on the congruence between the organizational culture, which encompasses the values held by the members of the company, the leadership style, which reflects the values of the leader, and the organization's formal structure (Bojadziev, 2011).

During its initial conceptualization and subsequent development, the model considered four dimensions instrumental in shaping the organizational culture: Decision Making Style, Work Environment, Organizational Openness, and Entrepreneurial Orientation. This was supported by numerous papers published over the years (Bojadziev *et al.*, 2018; Bojadziev *et al.*, 2017; Bojadziev *et al.*, 2016; Limani *et al.*, 2015).

Despite the complexity and intricacy these four dimensions brought to the table, the Vox model underwent a revamp. A new, more streamlined design was proposed, reducing the four dimensions to two which are Decision Making Style and Entrepreneurial Orientation. This redesigned model introduced a system with just Four Culture Types and Four Leadership Styles (Bojadziev, 2019). For the reason that the focus of this research paper is only on the organizational culture, in the figure below is presented only the four cultural types.

**Figure 1.** Cultural Types Related to Dimensions

Source: Bojadjiev, 2019

The Four Culture Types are:

- ♦ Managerial Autocracy - Low innovativeness, risk-taking, and limited democracy. Decisions are centralized, and the focus is on stability, but adaptability and employee involvement might suffer.
- ♦ Managerial Democracy - High democracy, low innovativeness, and risk-taking. Employee input is valued, but the organization might struggle to innovate due to cautious decision-making.
- ♦ Entrepreneurial Autocracy - High innovativeness, risk-taking, but low democracy. Quick decisions and bold moves are common, but employee participation in decisions might be lacking.
- ♦ Entrepreneurial Democracy - High innovativeness, risk-taking, and democracy. This balanced culture fosters innovation, adaptability, and collaboration among employees.

The Vox model utilizes a methodology that involves a set of questions used to calculate values for both the x-axis and y-axis, forming a matrix. The x-axis comprises the first sixteen statements of the Vox questionnaire, and their means collectively yield the first result. Conversely, the y-axis consists of the last five statements, with their means generating the other result. By calculating and analyzing these values, the Vox model descends the hypotheses for this research. This approach enables researchers to gain valuable insights into how various organizational characteristics and practices interact and impact overall culture, providing a comprehensive understanding of the interplay between onboarding processes and organizational culture in this specific context.

The questionnaire distributed to non-managerial staff and measures the organizational culture and practices consists of 21 questions regarding the culture on a 5-point Likert scale. The questionnaire is presented in Appendix 1.

Moreover, the questionnaire comprises three key variables: generation group, work experience, and job categories. The generation group variable encompasses Generation X (born between 1965 and 1980), Generation Y (born between 1981 and 1996), and Generation Z (born between 1997 and 2012) as they are the most prevalent generations in the current workforce. Work experience is classified into five categories: 0-6 months, 7-12 months, 1-2 years, 3-5 years, and more than five years.



Job categories include Office, Production, Laboratory, Sales, and Other. Combining both parts of the questionnaire, the study aims to comprehensively explore and understand the interplay between generational differences, work experience, job categories, and participants' responses to the Vox model statements, thereby providing valuable insights into the targeted research area.

This quantitative research will collect its primary data through online questionnaires to pharmaceutical industry employees in North Macedonia, focusing on those working in drug manufacturing companies. According to Malmed (n.d.), Alkaloid Skopje, Replek Farm, Bionika Pharmaceuticals, Apimel, Galafarm, Fitofarm, Geoprom, and Aspectus Farm are registered drug manufacturers in North Macedonia. To uphold confidentiality, the survey was exclusively distributed to a select group of employees of companies in the pharmaceutical industry in North Macedonia. Over a month, 228 responses were collected and served as the basis for analysis. The collected survey data were subjected to a thorough analysis using the statistical software SPSS, allowing for a thorough examination of the results, including testing hypotheses and examining variable relationships.

According to Mileva *et al.* (2020), most employees and leaders across various industries in the Republic of North Macedonia consider that organizational culture is based on entrepreneurial democracy, characterized as open and initiator of collaboration within and outside the organization. Therefore, the results section of the paper offers insightful details regarding the findings of the analysis where the following hypothesis is proposed:

- ◆ Entrepreneurial Democracy is the most preferred organizational culture during the onboarding process.

RESULTS AND DISCUSSION

According to the data in Appendix 2, each statement's range of mean values, from 1.88 to 4.21, shows that different aspects of organizational culture elicit different responses from people. The statements with the highest mean scores refer to the organization's investment in learning new things, which shows that most respondents support these organizational characteristics. However, statements about the organization's support for stability as a necessary condition for long-term sustainability, the strategic decision-making process occurring following written rules and procedures, the organization having "clear rules of the game, and the organization not taking risks have relatively lower mean scores. This indicates that the organization is using a tried-and-true approach, demonstrating that respondents are less optimistic about these aspects of the organization. The standard deviation values range from 0.66 to 1.17, with the statement about the organization's support for stability having the lowest standard deviation and the statement about being aware of workplace and working conditions having the highest standard deviation, indicating a higher degree of variability in participant opinions. Statements with low standard deviations (below 1.0) show that the participants have a high consensus or agreement. In the pharmaceutical industry in North Macedonia, for example, the statement "The organization supports stability as a prerequisite for long-term sustainability" has the lowest standard deviation of 0.66307, indicating that respondents generally share a common perspective on the importance of stability for the organization's success and longevity. This high level of agreement might result from good management and communication techniques that value consistency and inspire trust among staff members. Although there is some agreement among participants, there are also differences in their perceptions, according to moderate standard deviation values (between 1.0 and 1.5) of response dispersion. For instance, with a standard deviation of 1.17263, the claim "The organization pays little attention to the workplace and



"working conditions" is the most inconsistent. This demonstrates the diversity of participants' views on the organization's emphasis on workplace conditions, with some considering it a significant issue. Others may not consider it to be a significant issue. The higher standard deviation indicates a need for more agreement on this element of organizational culture within the North Macedonian pharmaceutical industry, necessitating further research and potential changes to account for differing perceptions. In general, the data offer an understanding of the various organizational culture elements that respondents view favorably or unfavorably, as well as the degree of agreement or disagreement among respondents.

The data also shows that Generation Z (3.00) has the highest representation in the dataset, while Generation Y (2.00) is in the middle, and Generation X (1.00) has the lowest. Most participants are from Generation Y, with roughly equal numbers from Generation X and Generation Z, according to the mean value of 1.8289. The low standard deviation of 0.49814, which indicates that the data points are close to the mean, shows that the distribution is not overly skewed. The data also shows that the participants' work histories within the current organization vary considerably. Participants with 0 to 6 months of work experience receive a minimum value of 1.00, while participants with more than five years of work experience receive a maximum value of 5.00. Participants typically have more than four years of experience with their current employer, with a mean value of 4.3114. The standard deviation of 1.03441 indicated that the participants' work experience showed moderate variation. The participants are employed in various occupations, with Office (1.00) having the highest prevalence and Other (5.00) having the lowest. The participants are, on average, evenly distributed across the occupational categories, according to the mean value of 2.0351. The standard deviation of 1.23410 shows a comparatively more significant variation in the representation of job categories, indicating that some categories may have an unreasonably high participation rate.

The means of the first sixteen statements, with an average mean score of 3.53, and the last five statements, with an average mean score of 3.19, were examined to test the hypothesis that entrepreneurial democracy is the most preferred organizational culture during onboarding. Appendix 3 contains the details mentioned above. This result supports the theory that employees prefer entrepreneurial democracy as an organizational culture when they first join the company. Employees can take charge of their work and contribute original ideas thanks to the innovative and empowering nature of the organization. Collaboration and open communication are prioritized, which fosters a sense of community and improves job satisfaction. Additionally, the culture's adaptability ensures a positive and flexible work environment, while the emphasis on learning and development offers new hires opportunities for growth. The organization's Entrepreneurial Democracy program offers a challenging and encouraging environment that enables new hires to make a significant impact and fosters long-term career prospects.

The first ANOVA analysis looks at the relationship between organizational culture statements and generational groups to look at more of the survey results from Appendix 4. The significance value indicates if there is a significant difference between the sample means. Participants' perceptions of the following factors, in particular, varied significantly: the presence of clear rules ($p = .034$), the degree of trust ($p = .005$), shared understanding of appropriate behavior ($p = .045$), professional development opportunities ($p = .005$), fair treatment ($p = .000$), work-life balance ($p = .001$), feedback ($p = .008$), a collaboration between workers in the same industry ($p = .007$), building community relations ($p = .007$). The above-mentioned results show that in order to align perceptions and foster a more positive work environment, organizations must address these specific organizational culture issues during the onboarding process. These findings emphasize the need for organizations to address and improve these particular dimensions based on the observed generational differences.



The second ANOVA analysis in Appendix 5 shows the relationship between work experience and organizational culture statements. There is no statistical significance below 0.05, according to the results in the table. Thus, it is clear that work experience has no bearing on the organizational culture statements that were examined. This shows that employees, regardless of their level of work experience, have similar perceptions of the organizational culture. The lack of apparent differences does not necessarily mean that work experience has no impact on organizational culture. Other variables left out of this analysis could still influence employee perceptions. It is advised to conduct more research to examine other factors and how they affect organizational culture.

The third ANOVA, which represents the average of various organizational culture statements across job categories, is highlighted in Appendix 6. Participants' opinions about working together across industries and within industries ($p = .023$ / $p = .000$), community relations ($p = .007$), and not taking risks ($p = .037$) varied significantly. In order to align perceptions and promote a more positive work environment, these findings highlight the necessity for organizations to address these particular organizational culture aspects during the onboarding process. These results highlight the need for organizations to resolve and improve these dimensions based on the observed job categories.

LIMITATIONS

Several limitations exist in the study examining the relationship between the onboarding process and organizational culture in the pharmaceutical industry in North Macedonia. First, the research is limited to a specific industry and geographic location, limiting the findings' applicability to other industries or regions. The findings may not apply to organizations operating in various contexts or cultures. Moreover, the English proficiency of the participants represents a potential limitation of this study. Some individuals in the pharmaceutical industry in North Macedonia may have limited English proficiency, which may impact the accuracy and interpretation of the collected data and potentially reduce the generalizability of the results.

This paper also relies on self-report measures and employees' subjective perceptions of the onboarding process and organizational culture. This introduces the possibility of response biases, such as social desirability bias and recall bias, which may impact the precision and dependability of the collected data. In addition, the reliance on a single data acquisition method, namely survey questionnaires, is another limitation. Even though surveys are a common research tool, they may not capture the complete complexity and details of the onboarding process and organizational culture. Complementary qualitative methods, such as interviews or observations, might have produced a deeper understanding of the experiences and perceptions of employees.

The paper does not investigate the long-term effects of the onboarding process on organizational culture. The emphasis is predominantly on the initial onboarding experience, ignoring the potential for organizational culture to change or evolve. Examining the long-term effects would provide a more comprehensive picture of how the onboarding process shapes and influences organizational culture.

Even though the study provides valuable insights into the relationship between onboarding and organizational culture in the pharmaceutical industry in North Macedonia, these limitations emphasize the need for additional research to confirm and expand upon these findings.



CONCLUSION

This study employed the Vox model to examine the relationship between onboarding and organizational culture within the pharmaceutical industry. Specifically, the investigation focused on employees working in drug manufacturing companies located in North Macedonia. The findings revealed that Entrepreneurial Democracy emerged as the most preferred organizational culture during onboarding. This culture type allows employees to control their work and contribute valuable contributions to original ideas, fostering a sense of belonging and increasing job satisfaction. Furthermore, the organization places a significant emphasis on learning and development, while the adaptability of the culture ensures a positive and flexible workplace. However, on the other hand, aspects associated with stability, adherence to written rules, clear rules, and risk-taking receive relatively lower mean scores, indicating that respondents are less optimistic about these characteristics, thus suggesting a more conservative and cautious approach.

Furthermore, the study examined the influence of generational disparities, professional backgrounds, and work experience on individuals' perceptions of the organizational culture. Various facets exhibited notable disparities, emphasizing the necessity for organizations to tackle specific elements of organizational culture when facilitating the onboarding procedure to cultivate a favorable work milieu. Nevertheless, the research revealed that work experience did not substantially impact individuals' perceptions of organizational culture. This implies that employees tend to perceive the organizational culture similarly, irrespective of their level of work experience.

This study offers valuable insights into the correlation between onboarding practices and organizational culture within the pharmaceutical sector. The statement highlights the significance of implementing a meticulously designed onboarding procedure that follows the desired organizational culture of Entrepreneurial Democracy. Furthermore, this emphasizes the importance of organizations considering generational disparities when formulating their onboarding procedures. The findings establish a foundation for subsequent research endeavors and offer practical implications for organizations to improve their onboarding procedures and cultivate a favorable organizational culture.

To enhance one's understanding of this particular association, it is imperative to conduct a further investigation that validates and elaborates on the discoveries above while acknowledging the constraints and incorporating supplementary factors. The research presented in this study highlights its novelty, and the subject matter is extensively documented in current literature. This study makes a valuable contribution to the existing body of knowledge by offering a distinct viewpoint on the correlation between onboarding practices and organizational culture within the pharmaceutical sector in North Macedonia.



REFERENCES

- Akkermans, J., Tomlinson, M., & Anderson, V. (2023). Initial employability development: introducing a conceptual model integrating signalling and social exchange mechanisms. *European Journal of Work and Organizational Psychology*, 1-13. <https://doi.org/10.1080/1359432x.2023.2186783>
- Antonacopoulou, E. P., & Wolfgang, H. Güttel. (2010). Staff Induction Practices and Organizational Socialization. *Society and Business Review*, 5(1), 22-47. <https://doi.org/10.1108/17465681011017246>
- Arachchige, B. J. H. (2014). Absence of Induction and Its Impact on the Organization. *The IUP Journal of Management Research*, 13(2), 7-16. <https://ssrn.com/abstract=2508198>
- Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92(3), 707. <http://dx.doi.org/10.1037/0021-9010.92.3.707>
- Becker, K., & Bish, A. (2021). A framework for understanding the role of unlearning in onboarding. *Human Resource Management Review*, 31(1), 100730. <https://doi.org/10.1016/j.hrmr.2019.100730>
- Blount, J. B. (2022). Betting on Talent: Examining the Relationship between Employee Retention and Onboarding Programs. *Engaged Management Review*, 5(3). <https://doi.org/10.28953/2375-8643.1083>
- Bojadziev, M. (2019). Development of Instrument for Measurement of the Organizational Alignment - from Vox Organizationis to "Four Organizational Culture Types and Four Leadership Styles." *Universal Journal of Management*, 7(5), 186-199. <http://dx.doi.org/10.13189/ujm.2019.070504>
- Bojadziev, M., Kostovski, N., Krliu-Handjiski, V., & Shindilovski, D. (2017). Organizational Culture and Strategic Alignment in Fast Moving Consumer Goods Company. *Annual of ISPJR (Institute for Sociological, Political and Jurisdictional Research)*, 41(1), 45-56.
- Bojadziev, M., Tomovska Misoska, A., Mirocevic, B., & Stefanovska-Petkovska, M. (2018). Organizational Culture and the "Voice" of Small Enterprises in the Electrical Engineering Service Sector in the Republic of Macedonia. *Universal Journal of Management*, 6(8), 263-272. <https://doi.org/10.13189/ujm.2018.060801>
- Bojadziev, M., Tomovska Misoska, A., Peshev, A., & Stefanovska-Petkovska, M. (2016). Organizational Alignment in ICT Company in the Republic of Macedonia. *Business and Economic Research. Journal of the Macrothink Institute*, 6(2), 424-439. <https://doi.org/10.5296/ber.v6i2.10258>
- Bojadziev, M., & Krliu, V. (2007). *Organizational culture as a driving force in modern organizations*. Second Annual International Conference on European Integration "Bringing Europe In: Different Mechanisms of Europeanization", Skopje, Severna Makedonija.
- Bojadziev, M., Tomovska Misoska, A., Stefanovska, M., & Nikolovska, Z. (2011). Vox organizationis – theoretical basis and methodological considerations in the development of an instrument for organizational culture. *MPRA Paper 42571*, Munich: University Library of Munich.
- Bradt, G., & Vonnegut, M. (2009). *Onboarding: How to get your new employees up to speed in half the time*. John Wiley & Sons.
- Canning, E. A., Murphy, M. C., Emerson, K. T. U., Chatman, J. A., Dweck, C. S., & Kray, L. J. (2019). Cultures of Genius at Work: Organizational Mindsets Predict Cultural Norms, Trust, and Commitment. *Personality and Social Psychology Bulletin*, 46(4), 626–642. <https://doi.org/10.1177/0146167219872473>
- Coff, R., & Kryscynski, D. (2011). Drilling for micro-foundations of human capital-based competitive advantages. *Journal of Management*, 37(5), 1429–1443. <http://dx.doi.org/10.1177/0149206310397772>
- Cooper-Thomas, H. D., Anderson, N., & Cash, M. (2012). Investigating organizational socialization: A fresh look at newcomer adjustment strategies. *Personnel Review*, 41(1), 41-55. <http://dx.doi.org/10.1108/00483481211189938>
- Dessler, G. (2013). *Human Resource Management*. London: Pearson Education, Inc.
- Frögléi, E., Jenner, B., & Gustavsson, P. (2023). Effectiveness of formal onboarding for facilitating organizational socialization: A systematic review. *PLOS ONE*, 18(2), e0281823. <https://doi.org/10.1371/journal.pone.0281823>



- Iliev, L., & Gavrea, C. (2008). The link between organizational culture and corporate performance – an overview. *The Journal of the Faculty of Economics*, 4(1), 322-325.
- Limani, A., Tomovska-Misoska, A., & Bojadjiev, M. (2015). Organizational alignment as a model for sustainable development in the public sector in the Republic of Macedonia. *Journal of Sustainable Development*, 5(2), 51-68.
- Malmed. (n.d.) Производители на лекови [Pharmaceutical manufacturers]. Retrieved from <https://malmed.gov.mk/%d0%bf%d1%80%d0%be%d0%b8%d0%b7%d0%b2%d0%be%d0%b4%d0%b8%d1%82%d0%b5%d0%bb%d0%b8-%d0%bd%d0%b0-%d0%bb%d0%b5%d0%ba%d0%be%d0%b2%d0%b8/>
- Mileva, I., & Hristova, S. (2022). Organizational culture in SMEs: An investigation of managers vs employees' perceptions. *The European Journal of Applied Economics*, 19(2), 54-70. <https://doi.org/10.5937/ejae19-39110>
- Mileva, I., Bojadjiev, M., Stefanovska-Petkovska, M., & Tomovska-Misoska, A. (2020). Investigation of organizational culture in companies in high rate polluted countries: Review of existing evidence and application of the new VOX Organizationis model. University American College Skopje, Skopje, 14-28. <https://doi.org/10.5281/zenodo.4393515>
- Pavlova, S. (2023). Organizational culture and organizational behavior of higher education institutions during the covid-19 pandemic. *The European Journal of Applied Economics*, 20(1), 52-65. <https://doi.org/10.5937/ejae20-42231>
- Raub, S., Borzillo, S., Perretten, G., & Schmitt, A. (2021). New employee orientation, role-related stressors and conflict at work: Consequences for work attitudes and performance of hospitality employees. *International Journal of Hospitality Management*, 94, 102857. <https://doi.org/10.1016/j.ijhm.2020.102857>
- Robbins, S. P., & Judge, T. A. (2016). *Organizational Behavior* (17th ed.). Pearson Education Limited, Upper Saddle River.
- Schein, E. H. (2004). *Organizational Culture and Leadership* (3rd ed.). San Francisco, CA: Jossey-Bass.
- Sims, G. (2018). Employee onboarding vs. orientation: Why you need both. *Insperity*. Retrieved from: <https://www.insperity.com/blog/employee-onboarding-vs-orientation-need>
- Singh, D. (2019). A Literature Review on Employee Retention with Focus on Recent Trends. *International Journal of Scientific Research in Science, Engineering and Technology*, 425–431. <https://doi.org/10.32628/ijsrst195463>
- Soomro, B. A., & Shah, N. (2019). Determining the impact of entrepreneurial orientation and organizational culture on job satisfaction, organizational commitment, and employee's performance. *South Asian Journal of Business Studies*, 8(3), 266–282. <https://doi.org/10.1108/sajbs-12-2018-0142>
- Voordt, T. V. D., & Jensen, P. A. (2021). The impact of healthy workplaces on employee satisfaction, productivity and costs. *Journal of Corporate Real Estate*, 25(1), 29–49. <https://doi.org/10.1108/jcre-03-2021-0012>



APPENDIX 1: VOX QUESTIONNAIRE - MEASUREMENT OF ORGANIZATIONAL CULTURE

1- Strongly disagree	2-I Disagree	3- Neither Agree Nor Disagree	4-I Agree	5-I Strongly agree
PART I. DEMOCRATIC VERSUS AUTOCRATIC ORGANIZATION				
Decision-Making and Behavior				
1.***	The organization has "clear rules of the game"			
2.	There is an atmosphere of trust in the organization			
3.	When changes are made, decisions are made publicly and timely to the respective parties			
4.	Managers consult with subordinates in the decision-making process			
5.***	Strategic decision-making process takes place in accordance with written rules and procedures			
6.	The organization is confident that employees will work according to accepted organizational norms and standards in cases where there are no written ones			
7.	There is a shared understanding of the appropriate behavior in the organization			
People vs Task Oriented				
8.	The organization provides opportunities for professional development and growth to the employees			
9.	The organization respects its employees and treats them consistently and fairly			
10.	The organization takes care of work-life balance			
11.***	The organization pays little attention to the conditions of the workplace and working conditions			
12	Employees receive timely feedback (formal or informal) about their work			
Open vs. Closed System				
13.	The organization fosters collaboration among employees in the same sector			
14.	The organization encourages cooperation between different sectors			
15.	The organization develops community relations (municipality, chambers and thus like)			
PART II. ENTREPRENEURIAL ORIENTATION				
Innovative vs. Risk Taking				
16.	The organization encourages experimenting and trying out new activities and approaches			
17.	Employees are encouraged to develop new and original ideas and/or products			
18.***	The organization supports stability as a prerequisite for long-term sustainability			
19.***	The organization does not take risks, uses a tried and tested approach			
20.	The organization invests in learning new things			
21.	The organization creates an atmosphere of trust that failure in new projects will not be deemed inappropriate;			

*The items with *** are reversed scored*



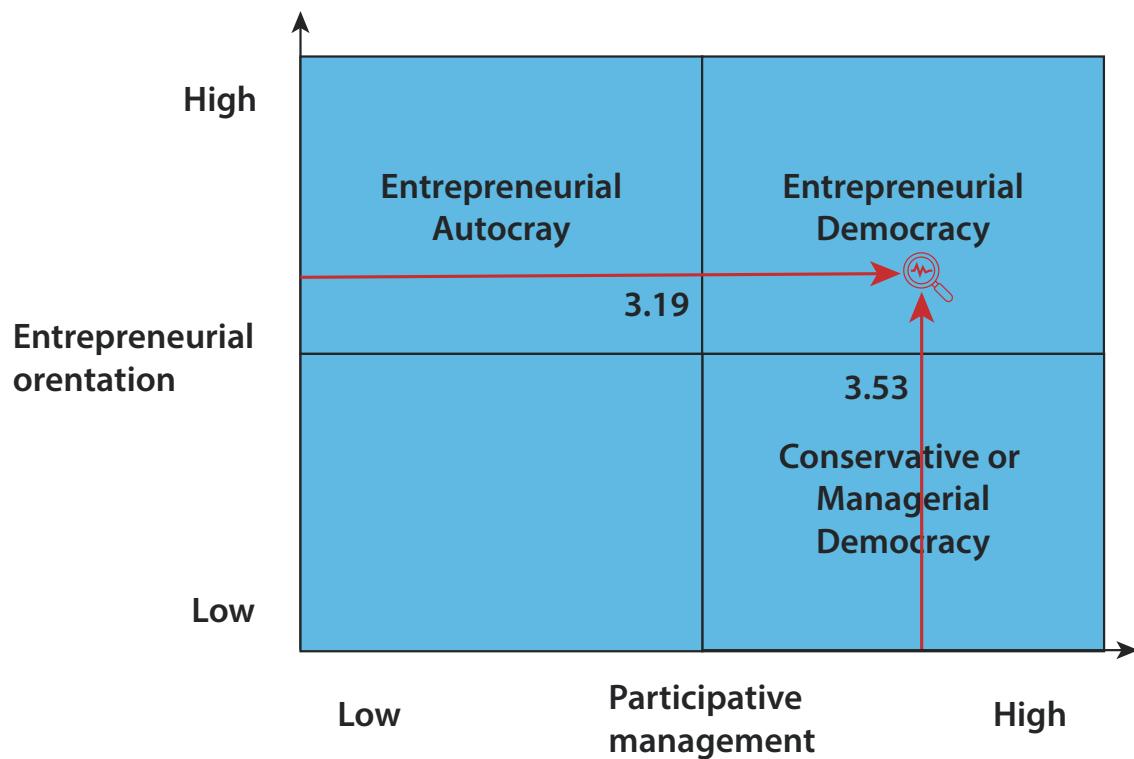
APPENDIX 2: DESCRIPTIVE STATISTICS ANALYSIS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The organization has "clear rules of the game"***	228	1.00	5.00	2.4211	1.03161
There is an atmosphere of trust in the organization	228	1.00	5.00	3.4693	1.02133
When changes are made, decisions are made publicly and timely to the respective parties	228	1.00	5.00	3.4167	.93256
Managers consult with subordinates in the decision-making process	228	1.00	5.00	3.5702	.90002
Strategic decision-making process takes place in accordance with written rules and procedures***	228	1.00	5.00	2.0921	.84756
The organization is confident that employees will work according to accepted organizational norms and standards in cases where there are no written ones	228	1.00	5.00	3.8816	.82313
There is a shared understanding of the appropriate behavior in the organization	228	1.00	5.00	3.8465	.83857
The organization provides opportunities for professional development and growth to the employees	228	1.00	5.00	3.8947	.92320
The organization respects its employees and treats them consistently and fairly	228	1.00	5.00	3.8816	.94753
The organization takes care of work-life balance	228	1.00	5.00	3.7851	1.04622
The organization pays little attention to the conditions of the workplace and working conditions***	228	1.00	5.00	3.4386	1.17263
Employees receive timely feedback (formal or informal) about their work	228	1.00	5.00	3.5263	.94529
The organization fosters collaboration among employees in the same sector	228	1.00	5.00	3.7632	.83220
The organization encourages cooperation between different sectors	228	2.00	5.00	3.9167	.77237
The organization develops community relations (municipality, chambers and thus like)	228	2.00	5.00	3.8904	.78043
The organization encourages experimenting and trying out new activities and approaches	228	1.00	5.00	3.6930	.85130
Employees are encouraged to develop new and original ideas and/or products	228	1.00	5.00	3.8860	.84226
The organization supports stability as a prerequisite for long-term sustainability***	228	1.00	5.00	1.8816	.66307
The organization does not take risks, uses a tried and tested approach***	228	1.00	5.00	2.5307	.89734
The organization invests in learning new things	228	1.00	5.00	4.2061	.83774
The organization creates an atmosphere of trust that failure in new projects will not be deemed inappropriate	228	1.00	5.00	3.4342	.91491
Generation group	228	1.00	3.00	1.8289	0.49814
Work experience group (in the current company)	228	1.00	5.00	4.3114	1.03441
Job category	228	1.00	5.00	2.0351	1.23410
Valid N (listwise)	228				



APPENDIX 3: VOX MODEL - FOUR CULTURE TYPES RESULT



APPENDIX 4: ANOVA ANALYSIS FOR ORGANIZATIONAL CULTURE STATEMENTS AND GENERATION GROUPS

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
The organization has "clear rules of the game"***	Between Groups	7.154	2	3.577	3.433	.034
	Within Groups	234.425	225	1.042		
	Total	241.579	227			
There is an atmosphere of trust in the organization	Between Groups	10.857	2	5.428	5.406	.005
	Within Groups	225.928	225	1.004		
	Total	236.785	227			
When changes are made, decisions are made publicly and timely to the respective parties	Between Groups	7.071	2	3.536	4.179	.017
	Within Groups	190.346	225	.846		
	Total	197.417	227			
Managers consult with subordinates in the decision-making process	Between Groups	3.959	2	1.980	2.476	.086
	Within Groups	179.918	225	.800		
	Total	183.877	227			
Strategic decision-making process takes place in accordance with written rules and procedures**	Between Groups	2.513	2	1.257	1.761	.174
	Within Groups	160.552	225	.714		
	Total	163.066	227			
The organization is confident that employees will work according to accepted organizational norms and standards in cases where there are no written ones	Between Groups	2.751	2	1.376	2.049	.131
	Within Groups	151.051	225	.671		
	Total	153.803	227			
There is a shared understanding of the appropriate behavior in the organization	Between Groups	4.244	2	2.122	3.072	.048
	Within Groups	155.384	225	.691		
	Total	159.627	227			
The organization provides opportunities for professional development and growth to the employees	Between Groups	8.865	2	4.432	5.402	.005
	Within Groups	184.609	225	.820		
	Total	193.474	227			
The organization respects its employees and treats them consistently and fairly	Between Groups	17.760	2	8.880	10.740	.000
	Within Groups	186.043	225	.827		
	Total	203.803	227			
The organization takes care of work-life balance	Between Groups	14.997	2	7.498	7.226	.001
	Within Groups	233.472	225	1.038		
	Total	248.469	227			



The organization pays little attention to the conditions of the workplace and working conditions***	Between Groups	1.117	2	.559	.404	.668
	Within Groups	311.023	225	1.382		
	Total	312.140	227			
Employees receive timely feedback (formal or informal) about their work	Between Groups	8.433	2	4.216	4.880	.008
	Within Groups	194.409	225	.864		
	Total	202.842	227			
The organization fosters collaboration among employees in the same sector	Between Groups	6.770	2	3.385	5.062	.007
	Within Groups	150.441	225	.669		
	Total	157.211	227			
The organization encourages cooperation between different sectors	Between Groups	3.178	2	1.589	2.704	.069
	Within Groups	132.239	225	.588		
	Total	135.417	227			
The organization develops community relations (municipality, chambers and thus like)	Between Groups	6.016	2	3.008	5.118	.007
	Within Groups	132.243	225	.588		
	Total	138.259	227			
The organization encourages experimenting and trying out new activities and approaches	Between Groups	9.413	2	4.707	6.828	.001
	Within Groups	155.096	225	.689		
	Total	164.509	227			
Employees are encouraged to develop new and original ideas and/or products	Between Groups	5.100	2	2.550	3.679	.027
	Within Groups	155.936	225	.693		
	Total	161.035	227			
The organization supports stability as a prerequisite for long-term sustainability***	Between Groups	5.299	2	2.649	6.308	.002
	Within Groups	94.504	225	.420		
	Total	99.803	227			
The organization does not take risks, uses a tried and tested approach***	Between Groups	.429	2	.214	.265	.768
	Within Groups	182.356	225	.810		
	Total	182.785	227			
The organization invests in learning new things	Between Groups	7.357	2	3.679	5.447	.005
	Within Groups	151.954	225	.675		
	Total	159.311	227			
The organization creates an atmosphere of trust that failure in new projects will not be deemed inappropriate	Between Groups	4.184	2	2.092	2.533	.082
	Within Groups	185.829	225	.826		
	Total	190.013	227			

APPENDIX 5: ANOVA ANALYSIS FOR ORGANIZATIONAL CULTURE STATEMENTS AND WORK EXPERIENCE

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
The organization has "clear rules of the game"***	Between Groups	1.591	4	.398	.370	.830
	Within Groups	239.988	223	1.076		
	Total	241.579	227			
There is an atmosphere of trust in the organization	Between Groups	1.451	4	.363	.344	.848
	Within Groups	235.334	223	1.055		
	Total	236.785	227			
When changes are made, decisions are made publicly and timely to the respective parties	Between Groups	1.253	4	.313	.356	.840
	Within Groups	196.164	223	.880		
	Total	197.417	227			
Managers consult with subordinates in the decision-making process	Between Groups	.670	4	.167	.204	.936
	Within Groups	183.208	223	.822		
	Total	183.877	227			
Strategic decision-making process takes place in accordance with written rules and procedures***	Between Groups	1.266	4	.317	.436	.782
	Within Groups	161.799	223	.726		
	Total	163.066	227			
The organization is confident that employees will work according to accepted organizational norms and standards in cases where there are no written ones	Between Groups	2.758	4	.690	1.018	.399
	Within Groups	151.044	223	.677		
	Total	153.803	227			
There is a shared understanding of the appropriate behavior in the organization	Between Groups	2.730	4	.682	.970	.425
	Within Groups	156.897	223	.704		
	Total	159.627	227			
The organization provides opportunities for professional development and growth to the employees	Between Groups	1.742	4	.435	.506	.731
	Within Groups	191.732	223	.860		
	Total	193.474	227			
The organization respects its employees and treats them consistently and fairly	Between Groups	2.651	4	.663	.735	.569
	Within Groups	201.151	223	.902		
	Total	203.803	227			
The organization takes care of work-life balance	Between Groups	4.738	4	1.184	1.084	.365
	Within Groups	243.731	223	1.093		
	Total	248.469	227			



		Sum of Squares	df	Mean Square	F	Sig.
The organization pays little attention to the conditions of the workplace and working conditions***	Between Groups	3.545	4	.886	.640	.634
	Within Groups	308.595	223	1.384		
	Total	312.140	227			
Employees receive timely feedback (formal or informal) about their work	Between Groups	3.719	4	.930	1.041	.387
	Within Groups	199.124	223	.893		
	Total	202.842	227			
The organization fosters collaboration among employees in the same sector	Between Groups	1.735	4	.434	.622	.647
	Within Groups	155.476	223	.697		
	Total	157.211	227			
The organization encourages cooperation between different sectors	Between Groups	1.427	4	.357	.594	.667
	Within Groups	133.989	223	.601		
	Total	135.417	227			
The organization develops community relations (municipality, chambers and thus like)	Between Groups	1.565	4	.391	.638	.636
	Within Groups	136.694	223	.613		
	Total	138.259	227			
The organization encourages experimenting and trying out new activities and approaches	Between Groups	5.563	4	1.391	1.951	.103
	Within Groups	158.945	223	.713		
	Total	164.509	227			
Employees are encouraged to develop new and original ideas and/or products	Between Groups	1.291	4	.323	.450	.772
	Within Groups	159.744	223	.716		
	Total	161.035	227			
The organization supports stability as a prerequisite for long-term sustainability***	Between Groups	.307	4	.077	.172	.953
	Within Groups	99.496	223	.446		
	Total	99.803	227			
The organization does not take risks, uses a tried and tested approach***	Between Groups	2.882	4	.720	.893	.469
	Within Groups	179.903	223	.807		
	Total	182.785	227			
The organization invests in learning new things	Between Groups	3.570	4	.893	1.278	.279
	Within Groups	155.741	223	.698		
	Total	159.311	227			
The organization creates an atmosphere of trust that failure in new projects will not be deemed inappropriate	Between Groups	1.045	4	.261	.308	.872
	Within Groups	188.968	223	.847		
	Total	190.013	227			

APPENDIX 6: ANOVA ANALYSIS FOR ORGANIZATIONAL CULTURE STATEMENTS AND JOB CATEGORY

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
The organization has "clear rules of the game"***	Between Groups	5.875	4	1.469	1.390	.238
	Within Groups	235.704	223	1.057		
	Total	241.579	227			
There is an atmosphere of trust in the organization	Between Groups	4.496	4	1.124	1.079	.368
	Within Groups	232.289	223	1.042		
	Total	236.785	227			
When changes are made, decisions are made publicly and timely to the respective parties	Between Groups	4.190	4	1.047	1.209	.308
	Within Groups	193.227	223	.866		
	Total	197.417	227			
Managers consult with subordinates in the decision-making process	Between Groups	2.235	4	.559	.686	.602
	Within Groups	181.642	223	.815		
	Total	183.877	227			
Strategic decision-making process takes place in accordance with written rules and procedures***	Between Groups	1.911	4	.478	.661	.620
	Within Groups	161.155	223	.723		
	Total	163.066	227			
The organization is confident that employees will work according to accepted organizational norms and standards in cases where there are no written ones	Between Groups	1.596	4	.399	.584	.674
	Within Groups	152.207	223	.683		
	Total	153.803	227			
There is a shared understanding of the appropriate behavior in the organization	Between Groups	2.642	4	.660	.938	.443
	Within Groups	156.985	223	.704		
	Total	159.627	227			
The organization provides opportunities for professional development and growth to the employees	Between Groups	4.471	4	1.118	1.319	.264
	Within Groups	189.002	223	.848		
	Total	193.474	227			
The organization respects its employees and treats them consistently and fairly	Between Groups	7.908	4	1.977	2.250	.065
	Within Groups	195.895	223	.878		
	Total	203.803	227			
The organization takes care of work-life balance	Between Groups	9.188	4	2.297	2.141	.077
	Within Groups	239.281	223	1.073		
	Total	248.469	227			



		Sum of Squares	df	Mean Square	F	Sig.
The organization pays little attention to the conditions of the workplace and working conditions***	Between Groups	7.457	4	1.864	1.364	.247
	Within Groups	304.684	223	1.366		
	Total	312.140	227			
Employees receive timely feedback (formal or informal) about their work	Between Groups	3.113	4	.778	.869	.483
	Within Groups	199.729	223	.896		
	Total	202.842	227			
The organization fosters collaboration among employees in the same sector	Between Groups	7.770	4	1.943	2.899	.023
	Within Groups	149.440	223	.670		
	Total	157.211	227			
The organization encourages cooperation between different sectors	Between Groups	11.993	4	2.998	5.417	.000
	Within Groups	123.424	223	.553		
	Total	135.417	227			
The organization develops community relations (municipality, chambers and thus like)	Between Groups	8.427	4	2.107	3.619	.007
	Within Groups	129.831	223	.582		
	Total	138.259	227			
The organization encourages experimenting and trying out new activities and approaches	Between Groups	3.196	4	.799	1.104	.355
	Within Groups	161.313	223	.723		
	Total	164.509	227			
Employees are encouraged to develop new and original ideas and/or products	Between Groups	4.132	4	1.033	1.468	.213
	Within Groups	156.903	223	.704		
	Total	161.035	227			
The organization supports stability as a prerequisite for long-term sustainability***	Between Groups	3.194	4	.799	1.843	.121
	Within Groups	96.608	223	.433		
	Total	99.803	227			
The organization does not take risks, uses a tried and tested approach***	Between Groups	8.171	4	2.043	2.609	.037
	Within Groups	174.614	223	.783		
	Total	182.785	227			
The organization invests in learning new things	Between Groups	3.753	4	.938	1.345	.254
	Within Groups	155.558	223	.698		
	Total	159.311	227			
The organization creates an atmosphere of trust that failure in new projects will not be deemed inappropriate	Between Groups	5.570	4	1.393	1.684	.155
	Within Groups	184.443	223	.827		
	Total	190.013	227			



ODNOS IZMEĐU PROCESA UKLJUČIVANJA ZAPOSLENIH I ORGANIZACIONE KULTURE U FARMACEUTSKOJ INDUSTRIJI U SEVERNOJ MAKEDONIJI

Rezime:

Koristeći instrument Voice of the Organizations (Vox), ovaj rad ispituje odnos između procesa uvođenja novih zaposlenih i organizacione kulture u farmaceutskoj industriji u Severnoj Makedoniji, sa posebnim osvrtom na kompanije za proizvodnju lekova. Četvorodimenzionalni Vox model korišćen je u velikoj meri i fokusira se samo na četiri naznačena tipa organizacione kulture. Ukupno 228 odgovora je prikupljeno i analizirano korišćenjem SPSS softvera distribuiranjem onlajn upitnika zaposlenima u kompanijama za proizvodnju lekova u Severnoj Makedoniji. Rezultati pokazuju da je preduzetnička demokratija najpoželjniji tip organizacione kulture tokom procesa uvođenja novih zaposlenih. Štaviše, analiza detaljnije istražuje uticaj generacijskih razlika, radnog iskustva i kategorija poslova na percepciju organizacione kulture. Različiti aspekti su pokazali značajne razlike, ističući potrebu da se organizacije pozabave specifičnim dimenzijama tokom procesa uvođenja novih zaposlenih kako bi podstakle pozitivno radno okruženje. Sve u svemu, ova studija doprinosi dragocenim uvidima u odnos između procesa uvođenja novih zaposlenih i organizacione kulture u farmaceutskoj industriji, postavljajući temelje za buduća istraživanja i pružajući organizacijama praktične sugestije.

Ključne reči:

organizaciona efikasnost,
uvođenje novih zaposlenih,
organizaciona kultura,
farmaceutska industrija