

UDC 378.4:[316.77+070]:616-036.21

DOI: 10.18523/2519-4739.2022.7.1.20-28

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## **DOES CULTURE INFLUENCE ONLINE CUSTOMER ENGAGEMENT OF UNIVERSITY STAKEHOLDERS: PANDEMIC PERSPECTIVE**

*The COVID-19 pandemic has significantly increased the role of social media in the communication policy of educational institutions. Ensuring the effective use of social networks to communicate with target audiences requires universities to understand, among other things, the importance of cultural context for the audience's engagement.*

*We analyzed the engagement rates (ER) in Facebook and Instagram for the most influential universities in the Eastern Partnership (EaP) countries to determine the influence of the country's cultural characteristics.*

*The study examines two hypotheses. H1: Stakeholders in collectivist cultures with a high level of power distance are more likely to increase online engagement when limited in offline communication. H2: High uncertainty avoidance countries with long-term orientation will demonstrate broader social media engagement.*

*The results showed that the dynamics of stakeholder activity in the social networks Facebook and Instagram for the most influential universities in the Eastern Partnership countries do not depend on the country's cultural profile.*

*Thus, we can conclude that universities can expand their presence in the digital communication space while addressing representatives of their target audiences from different countries without differentiating their communication messages. The study results also indicate the prospects for expanding remote students' mobility programs as they will not require different approaches to effective digital communication.*

**Keywords:** COVID-19, customer engagement, social media, students, universities.

**JEL classification:** M30, M39, I20, I29

**Introduction and problem definition.** The coronavirus pandemic in 2020 forced universities to switch all processes into a remote mode in the middle of the academic year. As a result, we now have more than a full academic year of remote learning and management processes: work with enrollees, admission campaigns, passing final qualifying exams, issuing diplomas, and others. In addition, there are currently categories of students who have never attended university. This situation is a challenge for universities, so they must look for new tools to interact with the university community. The authors chose the Eastern Partnership countries for the study because this initiative of the EU countries envisages strengthening cooperation and integration in the region. The authors assumed that the European Union's Eastern Partnership Initiative aims at pursuing an integration policy. Therefore, the central governments should harmonize their decisions in education, health care, and other spheres. At the same time, their implementation may differ. This research study covered the leading universities of six Eastern Partnership countries: Armenia, Azerbaijan,

Georgia, Moldova, Belarus, Ukraine. Most countries (Armenia, Azerbaijan, Georgia, the Republic of Moldova, Ukraine) implemented strict quarantine regimes, including border closings, movement restrictions and the closure of retail and hospitality industries. Likewise, universities delivered their education services in these countries online. In Belarus, quarantine restrictions were less severe, and the educational process was not interrupted. Only several higher education institutions switched to remote learning after students were diagnosed with coronavirus. Therefore, Belarusian universities could make their own decisions on transferring the education process online.

In an online learning context, informal "networking" in the university community disappears, breaking ties and destroying the infrastructure of "idea creation" and innovation, learning atmosphere when students learn from each other while working on a joint project. Moreover, the university's IT infrastructure capacity is not always able to withstand the training and administrative load. Problems that arise in this regard require timely

communication to resolve them. As a result, students detached from campus do not understand the value of university education, which forces universities to look for additional mechanisms for interaction with students and enrollees.

In addition to the transformed communication perspective, cultural perspective also matters more in a post-covid world. Remote learning makes the geography of the university target audience wider geographically and, therefore, culturally. In many cases, students no longer need to relocate to study at the chosen university. This situation opens opportunities for educational institutions but simultaneously creates challenges. Marketing departments should understand whether culture influences the reaction and engagement of prospective and current students in their promotion campaigns. In addition, remote communication makes it more complicated to define an immediate response from the information recipient. At the same time, universities become less protected from the adverse reaction of the audience towards their messages, primarily online.

**Recent research and publications.** Several countries should be considered to determine and analyze the possible cultural differences in the audience's reactions to universities' digital communication. We have chosen the Eastern European Partnership (EaP) countries, as they are geographically close and have a high potential of a further increase in students' mobility, including remote one. At the same time, they have significant cultural differences that could shape digital communication between universities and their stakeholders.

Hofstede's six cultural dimensions model (Minkov et al., 2010) is used as a framework to explore the cultural differences among EaP countries. It is the most widely used framework for cultural cross-country analysis (Ibanez & Sisodia, 2020). Hofstede's model has been previously used in education-related studies by Sikorskaya (2019), Pergelova and Angulo-Ruiz (2017), Dennehy (2015), Eldridge and Cranston (2009), and Tang (2011). Sikorskaya (2019), Sikorska (2017), Manolesku, Prodan, and Arustei (2016) conducted region-specific studies for EaP countries. Research papers devoted to online customer engagement also use Hofstede's approach to culture definition (e.g., Nam & Kannan, 2020; Nguyen, Chang, & Simkin, 2014; Messner, 2020; Hur & Kim, 2017; Pookulangara & Koesler, 2011). A large selection of research papers currently dives into the COVID-19 pandemic consequences (Maaravi et al., 2021; Gokmen, Baskici, & Ercil, 2021; Webster et al., 2021; Wang, 2021) and national

governments' responses to COVID-19 challenges (Wang, 2021; Ibanez & Sisodia, 2020) through the prism of cultural dimensions.

The current research takes into consideration data of the Social Media (SM) activity of the most influential universities in the EaP countries, presented in the InfluenceRanking (Academic Influence, 2021) and continues the series of publications on the influence of the pandemic on universities' SM activity and stakeholders' engagement (Chala et al., 2021; Khrapkina & Pichyk, 2022, pp. 260–270). You can find the full list of the universities in question and their social media pages in Chala et al. (2021).

**Unsolved parts of the problem.** Restrictions related to the pandemic have forced universities to accelerate the digital transformation of the educational process and other business processes. However, in recent years and months the main focus of research and monitoring has been mainly on the transition to the online educational process and its efficacy, ignoring other aspects of university management, including communication processes with internal and external audiences. But we should keep in mind that universities have long lost the opportunity to communicate with stakeholders in the usual way – in classrooms, on campuses, at round tables and conferences, on TV. Under such conditions, social networks could turn from an auxiliary to the primary communication tool to tell university news, opinions on socially important issues, event announcements and deliver other types of content. Recent studies show that only 20 % of young people aged 18–29 (one of the main target groups of universities) learn the news from television (InMind, 2020). The rest use the Internet, and universities need to position themselves in the online media space. Marketing teams need to understand whether and how cultural differences influence stakeholders' online engagement to ensure the effectiveness of such positioning and other digital communication aspects.

**Aim and tasks of the paper.** In this study, we look at how culture shapes social media response to the pandemic of both groups – universities and their stakeholders. The study aims to analyze the transformation of the interaction of universities in the Eastern Partnership countries with their audiences using social media in the context of COVID-19.

We will look at the nature of social connections and the attitude towards the future as cultural parameters of the EaP countries, which, we suppose, may impact the level of social media CE of university stakeholders. We use the Individualism / Collectivism and Power Distance parameters to characterize social connections.

## Main research results

**Cultural Model.** To assess the attitude towards the future, we use Long-term orientation and Uncertainty avoidance indicators. To estimate the difference in the social connections for representatives in different countries we look at the Individualism / Collectivism and Power Distance parameters. Fig. 1 presents the values of these indicators for each EaP country.

We then analyze the level of audience engagement with the universities' social media pages – Facebook and Instagram, as they are the most widely used in the EaP countries (Chala et al., 2021). We use Popsters.com to extract data on Engagement Rate per day (ER day) and Engagement Rate per post (ER post) for two periods:

- pre-COVID-19 – March – September 2019;
- COVID-19 – March – September 2020.

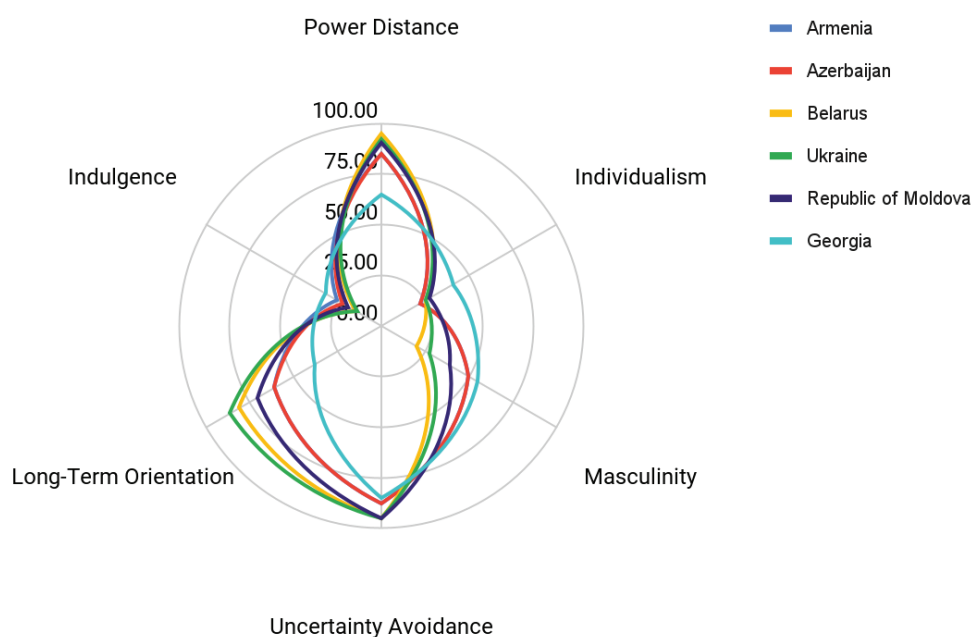
**Audience engagement on Facebook after COVID-19.** Official Facebook pages of the leading universities in EaP countries differ much in the number of followers. The least popular are Yerevan State Medical University (YSMU, Armenia) and Brest State Technical University (BSTU, Belarus). They have about 2 000 fans each. In comparison, most Georgian universities have more than 100 000 fans (see Table 1).

As seen from Table 1, the extent to which universities attract and retain followers on their Facebook pages differs much for analyzed

countries. Half of the universities (all Georgian, 4 Armenian, ADA, and NaUKMA) have a fanbase that several times exceeds their number of students. This means that mentioned universities constantly work on promoting their social media. Another half of the universities have fewer or only slightly more fans than students, and their SM potential is not fully used.

The audience of Universities' social networks demonstrated a willingness to engage with education institutions online via Facebook (see Fig. 2–3) and Instagram (see Fig. 4–5). We excluded Yerevan State Medical University (YSMU, Armenia) from this part of the user engagement analysis. They terminated managing their Facebook page, and user engagement stopped for reasons beyond their control. Excluding the audience of this university, the rest of the university stakeholders increased their level of per day engagement by 0.25 points on average (see Fig. 2) and the level of per post engagement – by 0.18 points on average (see Fig. 3).

Data indicate that most universities' stakeholders are eager to like, comment, and share their social media content more actively after the COVID-19 lockdown and other restrictions applied to the education process. They demonstrate positive emotions towards HEI through likes on Facebook, communicate with universities and other users posting comments, and actively share relevant information with their Facebook contacts.



**Fig. 1.** Hofstede's 6-D cultural model for EaP countries  
Source: Hofstede Insights (2021a, 2021b)

Table 1. Facebook and Instagram followers, 2020

University	Country	Facebook			Instagram		
		Followers	Students	Fans/Students	Followers	Students	Fans/Students
RAU	Armenia	14 039	6500	2,16	2120	6500	0,33
YSMU	Armenia	1 853	7000	0,26			
ASUE	Armenia	27 312	5000	5,46			
AUA	Armenia	54 653	2000	27,33	5882	2000	2,94
ADA	Azerbaijan	48 925	2560	19,11	16036	2560	6,26
BSU	Azerbaijan	23 011	18850	1,22			
ASOIU	Azerbaijan	10 351	10200	1,01			
BelSU	Belarus				7958	25000	0,32
BelSU	Belarus	4 000	25000	0,16	7958	25000	0,32
BSTU	Belarus	1 896	7000	0,27			
BNTU	Belarus	9 928	28000	0,35			
TSU	Georgia	168 901	18000	9,38			
TSMU	Georgia	25 154	10500	2,40	3600	18000	0,20
CU	Georgia	108 426	2000	54,21	5263	2000	2,63
ISU	Georgia	134 489	16650	8,08	4271	16650	0,26
FU	Georgia	132 433	2690	49,23			
MSU	Moldova	2 257	20560	0,11			
KNU	Ukraine	21 796	25000	0,87	6813	25000	0,27
NaUKMA	Ukraine	18 084	4422	4,09	2005	4422	0,45
LNU	Ukraine	17 794	18370	0,97	9033	18370	0,49
KPI	Ukraine	6 523	30000	0,22	9244	30000	0,31
KhNU	Ukraine	17 214	16000	1,08	18118	16000	1,13

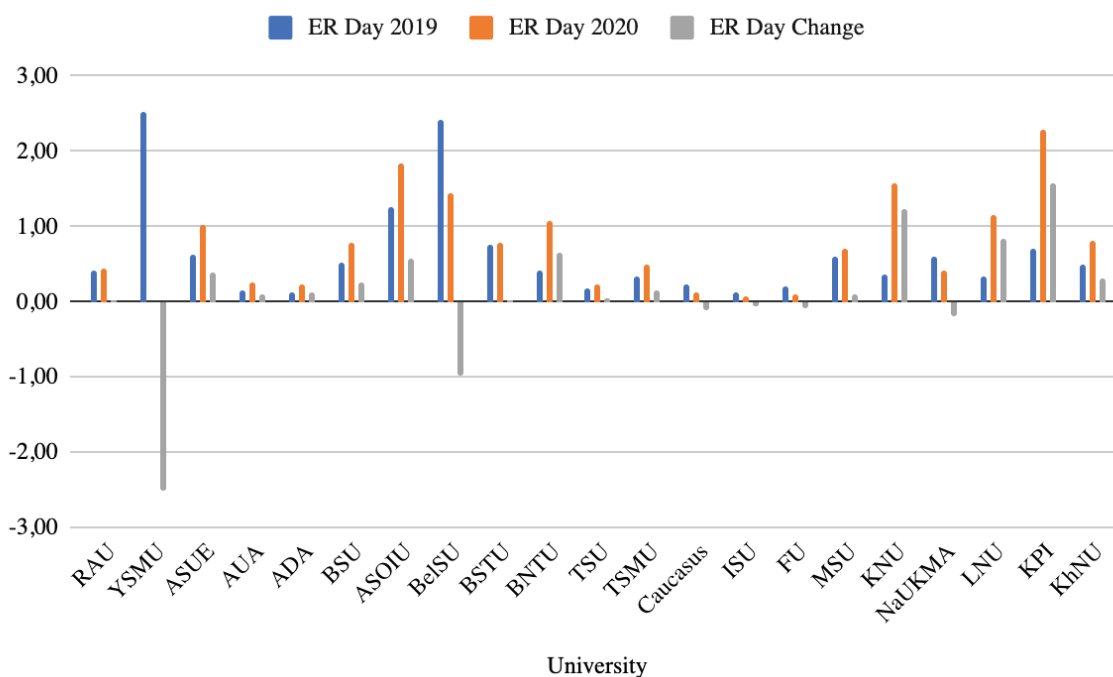


Fig. 2. Audience engagement rate per day dynamics on Facebook, 2019/2020

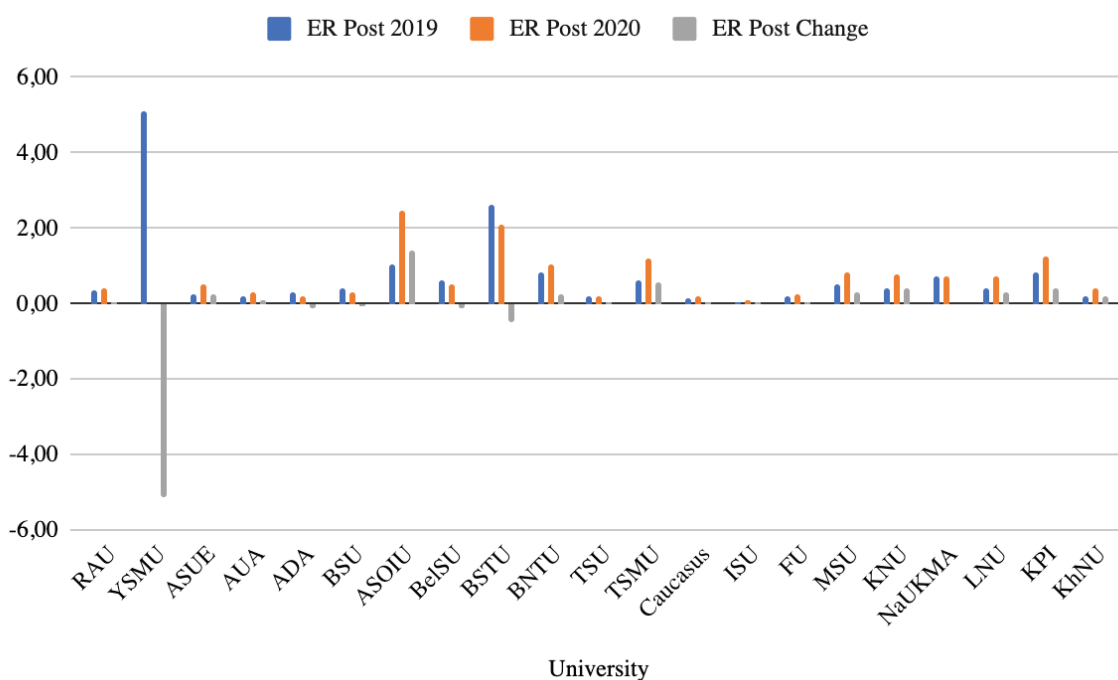


Fig. 3. Audience engagement rate per post dynamics on Facebook, 2019/2020

**Audience engagement on Instagram after COVID-19.** Azerbaijan Diplomatic Academy (ADA, Azerbaijan) and Karazin Kharkiv National University (KhNU, Ukraine) have the most prominent Instagram fan bases – 16036 and 18118 fans. These numbers are two to nine times higher than those for other universities’ Instagram accounts. And they prove the excellent communication and relationship-building potential of this social network. And if Ukrainian universities

understand this potential and all 5 of them manage their official Instagram pages, ADA is the only Azerbaijan university represented on Instagram.

The Fans/Students ratio for Instagram is much lower than for Facebook (see Table 1). Only four universities (AUA (Armenia), ADA (Azerbaijan), Caucasus (Georgia), and KhNU (Ukraine)) have more Instagram followers than students. The rest still need to invite users to their Instagram page more proactively.

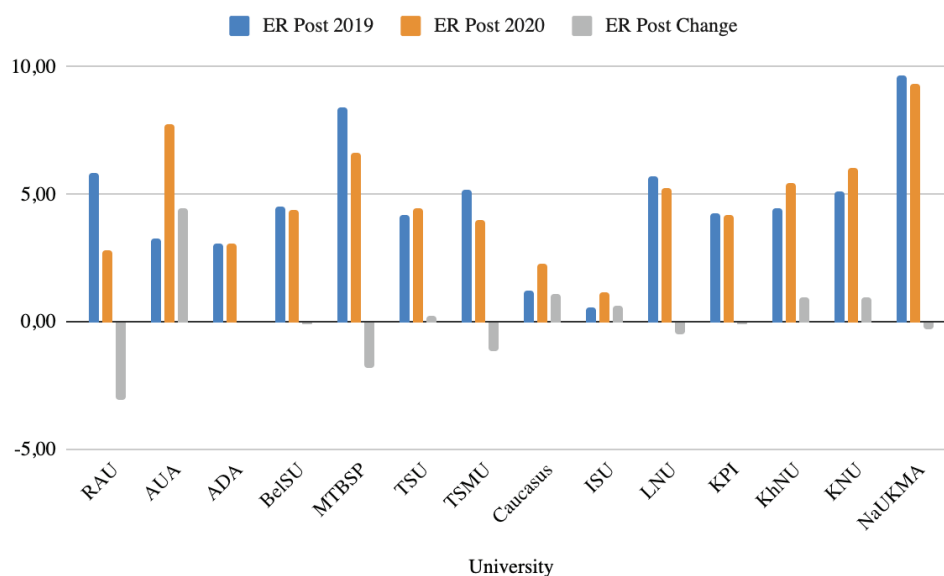


Fig. 4. Audience engagement rate per post dynamics on Instagram, 2019/2020

Comparing the ER per Day and ER per Post dynamics, we can conclude that customer engagement stays relatively stable. The average change of the ER per Day level is 0.1 (see Fig. 4). These levels significantly differ from the average only for Armenian Universities (-3.03 for RAU and 4.47 for AUA).

The average ER per Day dynamics shows a slight decrease of -0.24 (see Fig. 5). BeSU (Belarus) and NaUKMA (Ukraine) demonstrated the worst decline in user engagement after the COVID-19 pandemic started, with ER per Post level decreasing by 2.39 and 5.49 points, respectively. The lower increase of ER per Day compared to ER per Post may mean an ill-conceived post entry schedule.

and staff reluctantly tend to express disagreement, seldom criticize and question lecturers' and administrations' words or actions (Sikorskaya, 2019). In this context, SM can be seen as a way to lower the power distance index. SM platforms are barrier-free places that encourage all actors to express opinions regardless of the formal status and subordination levels. Therefore, we suppose that in countries with higher power distance, the level of SM engagement will be higher, demonstrating stakeholders strive for communication and free opinion expression.

*Individualism.* EaP societies are mostly collectivistic. Group belonging and inter-group

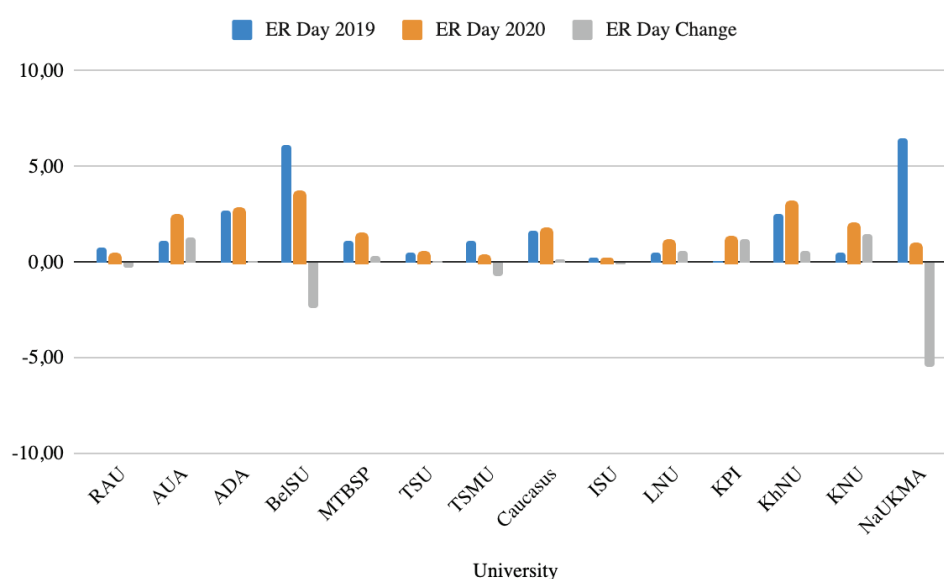


Fig. 5. Audience engagement rate per day dynamics on Instagram, 2019/2020

Now we will use Country ER rank to check whether and how countries' cultural dimensions influence stakeholders' engagement with universities' SM pages. Country ER rank is a sum of average ER ranks for two Social Media networks for all five universities in each country. The university ER rank increases by 1 point if ER for a SM page demonstrates a negative dynamic and by 2 points if it shows a positive dynamic. Methodology for calculating university ER ranks and data for each university are given in Chala et al. (2021).

*H1: Stakeholders in collectivist cultures with a high level of power distance are more likely to increase online engagement when limited in offline communication.*

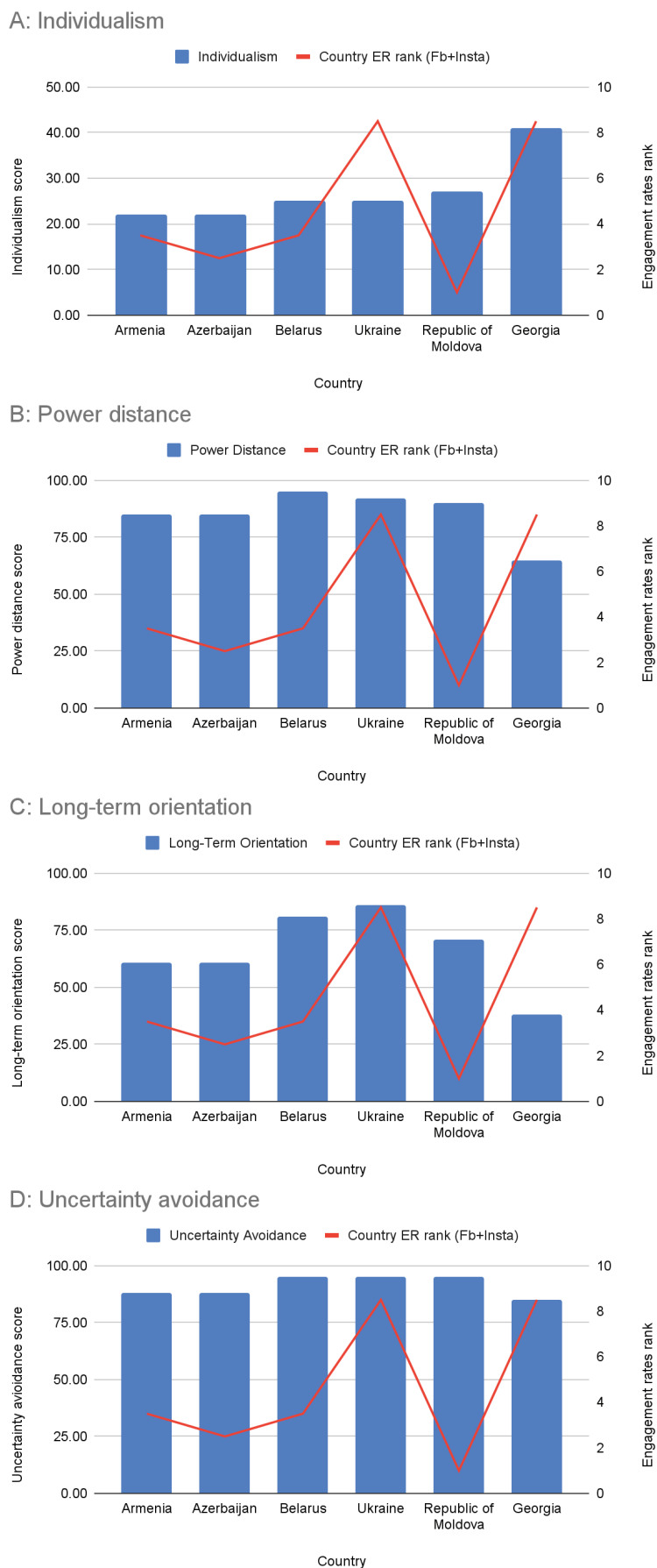
*Power distance.* EaP countries are mainly characterized by the high level of Power Distance Index, which means strongly subordinative management and teaching systems at HEI. Students

communication is vital. But a more significant part of such communication is symbolic and non-verbal. CE in collectivistic countries may demonstrate a herd instinct, where new comments mainly depend on previous ones (Messner, 2020). Therefore, we expected the number of likes and comments to increase with the COVID-19 pandemic and the limited number of instruments to communicate and demonstrate group membership.

*H2: High uncertainty avoidance countries with long-term orientation will demonstrate broader social media engagement.*

*Uncertainty avoidance.* All EaP countries score high on Uncertainty avoidance and tend to minimize the level of uncertainty. Users in these countries are expected to strive for additional information to mitigate the uncertainty level in the COVID-19 pandemic period. Thus, University SM pages could be the source of such information. On the other





**Fig. 6.** Culture as a factor influencing university online customer engagement

hand, such cultures are “intolerant of unorthodox behavior and ideas” (Hofstede Insights, 2021b) and may not be willing to change their communication and info search habits dramatically.

*Long-term orientation.* EaP countries have a greater scatter of values for this indicator. Georgia would have to demonstrate less positive ER dynamics than the rest of the nations as the country with the most normative society. In contrast, more pragmatic countries (with Belarus and Ukraine scoring the highest) would have a significant ER increase.

Fig. 6 shows no significant correlation between cultural dimensions of EaP countries and the dynamics of stakeholders’ activities in social media.

Georgia being twice more individualistic than Ukraine, shows the same level of ER dynamics. SM did not encourage stakeholders’ activities for classically more hierarchical countries – Armenia, Azerbaijan, Belarus and Moldova. We did not find any evidence to prove the H2 hypothesis and an attitude towards the future. Countries stay quite close on an uncertainty avoidance scale but still show very different ER dynamics. At the same time, Georgia, with a more short-term orientation, outstrips all other countries with more future-focused and education-oriented societies (except Ukraine).

**Conclusions and further research.** We have not identified any moderating role of cultural factors in the investigated period. Neither of the cultural dimensions demonstrated an influence on the level of immediate users’ response to universities’ SM

activity in general. But culture may still be a moderator of such actions if we dive deeper into the communication content and goals. Talking about social media as a communication channel for implementing distance mobility projects, will culture play a more significant role in activating such communication than we have seen now?

Similarly, social media is a tool for building and strengthening a brand. The question of how much the cultural peculiarities of a particular country can strengthen or weaken the role of SM in shaping the university brand is still left out of consideration. Nam and Kannan (2020) argue that it is worse to investigate the moderating role of culture in the relationship between SM sentiment and brand perception.

The study showed that investigated cultural aspects do not affect the interaction in social networks. At the same time, we can assume that behavioural models in social networks are international and depend on society’s digitalization and the general Internet penetration in the given country. This conclusion is essential for building a communication strategy of universities in social networks because it means that social networks can be used as a mechanism for internationalization and involvement of foreign stakeholders.

The promotion of research and development of universities on social media (which is currently very scarce) can significantly facilitate the creation of international teams, which is relevant for universities in the Eastern Partnership.

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## ЧИ ВПЛИВАЮТЬ КУЛЬТУРНІ ОСОБЛИВОСТІ НА ОНЛАЙН-ВЗАЄМОДІЮ СТЕЙКХОЛДЕРІВ З УНІВЕРСИТЕТАМИ В КОНТЕКСТІ ПАНДЕМІЇ COVID-19

Зміни умов функціонування університетів і формату надання освітніх послуг, спричинені пандемією COVID-19, значно підвищили роль соціальних медіа в комунікаційній політиці закладів освіти. Нова реальність перетворила їх на один із основних каналів зовнішньої комунікації, через які університети змогли продовжити спілкуватися зі стейкхолдерами, обговорюючи як внутрішні питання функціонування університетів, так і загальносоціальні аспекти. Забезпечення ефективного використання соціальних мереж для комунікації з цільовими аудиторіями вимагає від університетів, зокрема, розуміння важливості та рівня впливу на залученість аудиторії культурного контексту.

У статті проаналізовано рівень використання соціальних мереж «Фейсбук» та «Інстаграм» найвпливовішими закладами вищої освіти країн Східного партнерства для встановлення наявності впливу культурних особливостей країн на залученість аудиторії в соціальних мережах. Дослідження передбачало перевірку таких гіпотез: 1) стейкхолдери в колективістських культурах з вищим рівнем дистанціювання влади будуть більш схильними до підвищення рівня залученості в соціальних мережах за умови обмеженого доступу до офлайн-спілкування; 2) стейкхолдери в країнах, культура яких характеризується високою схильністю до уникнення невизначеності та націленістю на довгострокову перспективу, також демонструватимуть зростання онлайн-залученості.

Перевірка гіпотез базувалась на даних про рівень активності користувачів на сторінках соціальних мереж 5 університетів з кожної з країн Східного партнерства в допандемічний (2019 р.) та пандемічний (2020 р.) періоди. Дані отримано за методологією Popsters.com. Культурні профілі країн побудовано на основі 6-вимірної культурної моделі Хофстеде.

Результати показали, що динаміка активності стейкхолдерів у соцмережах «Фейсбук» та «Інстаграм» для найвпливовіших університетів країн Східного партнерства не залежить від культурного профілю країни. Водночас динаміка користування соціальними мережами підтвердила прагнення стейкхолдерів до спілкування з університетами онлайн. Отже, можна зробити попередній висновок про те, що університети можуть розширювати свою присутність у цифровому комунікаційному просторі, звертаючись одночасно до представників своїх цільових аудиторій з різних країн і не диференціюючи свої комунікаційні звернення. Результати дослідження також вказують на перспективи розширення контингенту за рахунок студентів з інших країн через зростання дистанційної мобільності, адже немає потреби в різних підходах до організації ефективної цифрової комунікації.

**Ключові слова:** COVID-19, залученість користувачів, соціальні медіа, університети, студенти.

Матеріал надійшов 30.05.2022

