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CONFERENCE PROCEEDINGS

*Advances in Business-Related
Scientific Research
Conference - Abstracts*

*Advances in Business-Related
Scientific Research
Conference - Papers*

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KEYNOTE SPEAKER



Alois Paulin

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Dr. Alois Paulin is Professor of Digital Innovation and Transformation in Public Administration at the HVF Ludwigsburg since 2021. He holds a Doctor of Science degree in Computer Science and Informatics from the University of Maribor, Slovenia. Prior to his appointment to the HVF Ludwigsburg he worked as senior software engineer for Siemens and held teaching or research positions at the TU Vienna, TU Munich, and the Edinburgh Napier University, amongst others. His research interest is in public domain governance, sustainable government information systems, and democratic collaborative decision-making. He is author of Smart City Governance (Elsevier, 2018), co-editor of Beyond Bureaucracy: Towards Sustainable Governance Informatisation (Springer, 2017) and author numerous journals articles published in Advances in Intelligent and Soft Computing, Computers and Security, Journal of the Knowledge Economy, and Journal of Universal Computer Science.

Abstract

Bombing? No, hacking! How Non-Mediated Governance would prevent civil suffering in future wars

Destruction of private property, civil casualties, livelihoods destroyed - the toll of war for civilians has always been gigantic. But why should civilians suffer when regimes aim to enforce their will on each other? What if there was a way for governments to take over each other's business without inflicting suffering on civilians? In this presentation we'll describe Non-Mediated Governance - an emerging approach to public governance that is about fully moving public governance to cyberspace and eliminating human

mediators by and large. We shall describe how Non-Mediated Governance and Liquid Democracy can enable new perspectives on public governance and enable total democracy.”

Key Words

Liquid Democracy, Non-Mediated Governance, cyberspace

FINANCIAL AND NON-FINANCIAL REPORTING IN THE FUNCTION OF SUSTAINABLE DEVELOPMENT

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Abstract

Globalization and internationalization of the market create great pressure on the business of the company, which is reflected in the economic development of the company and society as a whole. Sustainable development is, and thus sustainable management, a global goal, the fulfillment of which requires a long-term strategy of policy coordination for economic, social, and environmentally sustainable development. Orientation of sustainable and quality management ensures process optimization, minimizing resource consumption, and maximizing other benefits associated with the business processes of the organization. Today, the interconnectedness and importance of financial and non-financial reporting are one of the key factors that ensure and contribute to the sustainable growth and development of the organization. Reporting regulations increases transparency and sustainability for all stakeholders and organizations themselves. Although non-financial reporting is currently not a legal obligation of organizations, it is important to accept it and recognize the benefits it has for the organization itself. From the aspect of the importance of the concept of organizational reporting to stakeholders, it is necessary to achieve harmonization and comparability, reliability and relevance of non-financial and financial reporting in the function of sustainable development.

Key Words

sustainable development, financial reporting, non-financial reporting, sustainable management, reporting regulations

OPEN BANKING: IS CENTRAL AND EASTERN EUROPE READY TO ADOPT OPEN BANKING?

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Abstract

The main objective of this study is to analyze the legislative approaches related to open banking, and the second objective is to analyze the challenges and opportunities of open banking in Central and Eastern European countries. Using a comparative analysis, the results show that countries have a variety of legislation. According to the findings of this paper, EU member states have already implemented PSD2, whereas non-EU countries like Albania, the Republic of Kosovo, North Macedonia, and Montenegro have developed long-term strategies to implement PSD2. Serbia and Bosnia and Herzegovina have marked delays in planning the implementation of PSD2. The open banking readiness index 2021 categorizes Poland in the fourth category and Hungary in the fifth category. With open banking, traditional banks see FinTech companies and digital challenger banks as competitors that pose a great risk to them. Also, the issue of personal data misuse will be challenging for all countries, so the implementation of data protection laws must be very rigorous. On the other hand, open banking offers many opportunities for banks and their clients.

Key Words

open banking, APIs, digital Platforms, PSD2, banking

Introduction

Digitalization in banks has been of great importance recently. Financial services in banks could be digitally transformed, but only if these data sources can be shared and the user has given permission. For today's banks, innovation is critical. They are under severe cost pressures, facing tremendous competition, and have high client expectations. They can only meet these difficulties by providing customers with new and differentiated products, services, and experiences. They can do this through open banking. The open banking concept was initially driven by laws, such as PSD2 (Payment Services (PSD 2) - Directive in Europe (EU) 2015/2366), for most financial institutions. Open banking is a process in which banks open up their application programming interfaces (APIs), allowing third parties to access financial data needed to develop new apps and services while also providing account holders with more financial transparency. Furthermore, banks must respond to the need for integrated solutions generated by diverse financial organizations. The ability of banks to enable institutions to access their services via safe APIs is at the heart of this revolution.

Implementation of open banking has challenges and brings challenges for the banking sectors of all countries in Central and Eastern Europe countries (CEE). Along with the many opportunities that open banking brings, there are also many risks, which must be treated well so as not to cause financial instability. The main purpose of this study is to investigate the current state of open banking legislation (PSD2) in CEE countries. Another goal is to explore the opportunities and challenges that open banking offers.

The paper is structured as follows. The theoretical part is followed by the methodology used for this study. The results are included in the findings, followed by the paper's conclusions and implications.

Theory

Open banking is an opportunity that gives third-party financial services providers access to their customers' banking information. The main purpose of open banking is to return control to customers by enabling them to safely use third-party financial products and services that rely on banking data or functionality. The technology that supports this new ecosystem is web APIs (application programming interfaces).

According to Plaitakis and Staschen (2020, p.4), open banking is defined as "the exchange of consumer data between banks and other financial services providers (i.e., data holders), on the basis of customer consent, with other financial services providers and/or third-party providers such as fintechs." Open banking is defined by the Basel Committee on Banking Supervision (BCBS, 2019, p.19) as "the sharing and leveraging of customer-permissioned data by banks with third party developers and firms to build applications and services, such as those that provide real-time payments, greater financial

transparency options for account holders, marketing and cross-selling opportunities". While Arslanian and Fischer (2019) define "open banking" as a "generic term for regulations that oblige financial institutions to provide secure channels for customers to share their financial data with third parties and, in some cases, require the financial institution to provide third parties with the ability to move customer funds." Hallsworth and Robert (2019, p. 1) noted that "open banking" refers to "the ability of bank customers to authorize third parties to access their bank account information to collect account information or initiate payments." Meanwhile, APIs are "a set of rules and specifications for software programs to communicate with each other that form an interface between different programs to facilitate their interaction" (BCBS, 2019, p.19).

New rules, such as the European Union's Second Directive on Payment Services (PSD2), have forced many banks to open up, allowing others access to their customers' data. There are other compelling reasons for banks to embrace open banking, including monetary incentives. According to a report prepared by Nordic APIs (2020), there are six reasons for open banking: compliance, improved digital agility, premium API products, increased customer satisfaction, potential for collaboration, and a wider client base. Compliance—or at least preparing for compliance—is the primary motivation for banks to adopt open banking practices. While PSD2 is the best example of a broad rule requiring banks to disclose consumer data to other parties, compliance, of course, isn't about generating more revenue; it's about staying in business. By reducing unnecessary fines and fees, compliance promotes profitability. The ability to securely, swiftly, and efficiently communicate data is a major problem for open banking. As a result, many banks are being forced to rethink their entire data infrastructures, with API-based microservices frequently being used to make data more accessible. More digital agility is both a requirement and a benefit of open banking. Data may be better leveraged internally to improve the customer experience, resulting in higher customer lifetime value thanks to an upgraded digital infrastructure. One of the most interesting aspects of open banking is the very simple creation of new revenue-generating API products. Banks can generate extra revenue by developing and selling API products. Because of open banking, customers have a great deal of control over the number and scope of financial services available to them. On the one hand, this looks to be a clear disadvantage for banks, as it allows third-party organizations to profit from customer data that was previously solely available to them.

As previously stated, open banking is designed to allow third-party financial services companies access to client information. If banks are willing to go a step further, they can actively support these third-party enterprises in doing so, resulting in a slew of advantages. Banks, for example, can provide third parties with enhanced functionality, specific assistance, or even developmental partnerships. Low-income people with fluctuating or irregular incomes may have a hard time coping with financial shocks. Open

banking could enable products that advise customers on when and how much to save (Plaitakis & Staschen, 2020).

Today's banks, according to a report by KMPG (2019), should concentrate on the following main areas: recognizing the current course of action and examining what authorities and competitors are doing with open banking around the world. Also, banks should involve and educate their clients through communication with them on how they may safely use it to achieve their objectives and aspirations as well as gain access to better services and lower prices from banks and other third-party suppliers. Banks should concentrate their efforts on promoting open data across the ecosystem. Data security should be a part of their design process. This isn't only about adhering to privacy laws like the EU's General Data Protection Regulation (GDPR), but it's also about giving customers the confidence and security to share their information with their partners. Strategic partnerships with third parties can help banks develop new products, services, and experiences (Hallsworth & Robert, 2019).

In literature, we encounter many authors who emphasize the opportunities offered by open banking. Plaitakis and Staschen (2020) mention some opportunities that offer open banking: improving credit access and/or access circumstances; improving financial management; if collaborative consumer due diligence is permitted, account access will be made easier. Open banking has the potential to help banks earn customers' trust as secure data holders. As a result of open banking, banks will almost certainly be able to identify particular areas of expertise and offer unique goods and services. Banks (especially smaller ones) should be able to work with approved open banking to achieve better economies of scale (Hallsworth & Robert, 2019). A joint publication by Microsoft, Linklaters, and Accenture (2019) mentions some opportunities for incumbent banks with open banking. Smaller banks can provide a greater selection of products to their consumers. Banks will have access to other data sets in order to have a better understanding of their customers.

As mentioned by the Financial Data and Technology Association (2019), open banking brings a lot of opportunities not just for banks, but for all parties. For individual consumers, open banking may help with real-time credit monitoring to ensure loan or mortgage eligibility and the best rates; an app-based budgeting tool to manage spending; and simplicity. People might easily monitor and switch between banks for essential banking operations, depending on promotional offers, lower transaction costs, or better-interest savings accounts. Open banking, on the other hand, opens up possibilities beyond improving financial procedures. For businesses seeking insight into their customers, knowing how, when, and why people spend their money is invaluable.

LTI (2020) mentions the following advantages and implementations of open banking: with a mobile app-based solution, you can get a more simplified

view. Payments, fund transfers, tax management, investing, and many more financial duties may all be done with a single app. With open banking, streamlined lending due to readily available data on financial transactions and credit history is a new possibility. Also, enrollment in a new product necessitates little to no paperwork.

Open banking professional services support spending management and various liquidity management solutions by offering proactive monitoring and avoiding potential financial fraud. Wallet payment, phone payment, and email-based payment are all additional payment alternatives.

The move to open banking opens up a slew of new possibilities, but it also introduces a slew of new threats and hazards. Technological advancements, combined with the greater availability of data, have raised many concerns about the information's security and use. Consumers aren't always careful about who they share their information with, and their capacity to monitor it is limited.

According to a report by Infosys (2020), open banking initiatives have opened up a host of new challenges and risks for incumbent banks, which can have far-reaching implications for their business prospects, even to the point of an existential crisis. Some of them are enlisted below: (i) New competition from non-banking fintech companies, which are pure digital entities, is posing a threat to existing banks. Customers are attracted to such tech-savvy companies because they offer innovative and engaging financial goods and services. (ii) Data Security—financial data shared with third parties via APIs is vulnerable to data security breaches. (iii) Commoditization Risk—Because Open Banking removes many of the barriers to switching account providers, users can switch between current account providers and shop around for additional products solely on price. (iv) Risk of losing client relationships—Open Banking will combine banking information and payment services into a single interface, transferring them from the bank's control to AISPs (Account Information Service Providers) and PISPs (Payment Initiation Service Providers). This will harm banks since they will lose direct contact with their customers.

Banks invest a lot of money in security because their reputation is on the line. However, while banks are required to provide APIs for third-party applications, third-party applications are not subject to the same scrutiny and do not prioritize security. Given that banking applications are required to provide APIs, third-party applications should also adopt the same security standard (Noctor, 2018). Furthermore, the data will most certainly be held by a wider distributed group of companies, making it even more difficult to track. This could create issues with data surveillance and lead to potential misuse. As a result, one major concern is that people will consent to data sharing without fully understanding the implications. Another concern is that consumers may find it difficult to distinguish between trustworthy and untrustworthy third parties. This could lead to them refusing to give their data (Reynolds, 2017).

Change in culture is also a challenge. Digital transformation necessitates a shift in culture. Customers can switch vendors as quickly as tapping on a different application, so building a relationship with them is more vital than ever. Also, customer trust is critical to the success of open banking, and incumbent banks have a competitive advantage in this area. As a result, participants in the open banking ecosystem must ensure that data privacy and security are fully addressed. This is especially true for incumbent banks, whose operations are built on the trust of their customers. Regulatory compliance is also a significant concern. Financial services are well-known for being a highly regulated industry, with compliance issues making it difficult for financial institutions to move rapidly (Microsoft, Linklaters, and Accenture, 2019).

Methodology

The study methodology is based on a comparative analysis. This methodology was used by Landman (2008) and Lor (2010). This analysis is designed to compare a small number of cases, typically between 10 and 50 (Berg-Schlosser, et., 2009). First, the literature on the opportunities and challenges of open banking was reviewed in theoretical terms. In the second step, a sample of the countries included in the study (CEE countries) is selected by dividing them into EU members and non-EU members. In the third step, the legislation of these countries for the treatment of open banking is analyzed. The open banking readiness index for 2021 was also analyzed.

The research questions of this study are:

- *What is the level of legislation applied by CEE countries to open banking?*
- *What are the challenges and opportunities that open banking can bring for CEE countries?*

Relevant reports were analyzed regarding the challenges and opportunities that having an open bank brings to these countries. This study includes the following countries: Albania, Bulgaria, Bosnia and Herzegovina, Czech Republic, Croatia, Estonia, Hungary, Kosovo, Lithuania, Latvia, Montenegro, Northern Macedonia, Poland, Romania, Serbia, Slovenia, and Slovakia.

Results

A study by Deloitte (2018) highlights some of the challenges facing some of the CEE countries. According to the study for PSD2 and Open Banking for 66 CEE banks (Bulgaria, Croatia, the Czech Republic, Hungary, Latvia, Poland, Romania, Slovakia, and Slovenia), 48% of banks feel that established fintechs will pose the greatest threat. The following are some of the reasons for this belief: fintechs have the financial resources to invest in and develop compelling propositions. They have the internal capabilities required to develop such services, such as specialist design and product functionality.

They also have brand recognition and trust, and they already have a large client base to grow on.

However, digital challenger banks were identified as a major danger (41%). This reflects the reality that such organizations do not have legacy IT systems to worry about; this, together with their more flexible structures, will enable them to adapt to the new landscape post-PSD2 more rapidly and efficiently. Also, tech companies and new smaller fintechs are considered competitive for banks (from PSD2). So, in general, along with technological innovations, banks have also appeared very competitive.

According to the majority of respondents, PSD2 will result in a significant competitive shift in the next one to three years. A sizable minority of CEE respondents (12%) believe that PSD2 is not the primary cause behind the current wave of change. They believe that the primary determinant will be increased customer demand for open banking.

The majority of respondents have conducted some degree of strategic assessment of PSD2's effects and are aware of the challenges and opportunities that may arise. Many people have picked a high-level position that they want to pursue (59%). Payments are clearly in the lead, followed by everyday banking services. Consumer financing was mentioned by a large number of respondents as a potential option (47%). Other details are presented in Table 1.

Table.1. Summary of the results of the Deloitte Report (2018) for PSD2 and Open Banking for some 66 CEE banks

Key competitors profiting from PSD2 as perceived by banks in CEE	%	When do CEE banks expect the biggest impact from PSD2?	%	If your organisation has undertaken a strategic assessment of the impacts of PSD2, how would you characterise your response?	%	Are you currently participating in any collaborative initiatives or working with standard-setting bodies to define your/their collective approach to Third Party Access (TPA) standards?	%	On which product or offering - existing or new - do you think PSD2 will have the greatest impact?	%
Established FinTechs	48	Immediately	2	We are still evaluating this	29	Yes - initiative led by banks/financial sector association	59	Payments	91
Major/top-tier banking incumbents	44	Within 1 year	6	Cooperative - use PSD2 to drive new business strategy and pivot to digital, leveraging new cooperation opportunities	26	No - I am not aware of such an initiative in my market	29	Day-to-day banking	65
Major nonbanking incumbents	42	Within 1-3 years	63	Technology/IT	14	No - I am aware of such an initiative in my market, but my organisation is not part of it	6	Consumer lending	47
Newer digital challenger banks	41	More than 3 years	14	Defensive 'plus' - comply, but also have a platform from which Other to build further	11	No - I am aware of such an initiative in my market, my organisation is still evaluating potential participation	5	Savings	23
Tech companies	27	Trend is ongoing, PSD2 will facilitate this but will not provide the driving force for change	12	Wait and see - don't take major actions before the final text of local PSD2 implementation act	7	Yes - initiative led by government	1	Investments	17
New smaller FinTechs	20	Other	3	Defensive - ensure mandatory compliance only	6			Corporate lending	8
Existing non-bank, non-FinTech financial institutions	20			Aggressive - proactively embrace the PSD2 opportunity and leverage it to gain market share	6			Mortgages	6
Other smaller banks	9			Other	7			Other	2
Other	3								

Source: Deloitte, (2018). European PSD2 Survey Voice of the Banks (pp. 23-24;31-46)

Note: Countries that are included: Bulgaria, Croatia, the Czech Republic, Hungary, Latvia, Poland, Romania, Slovakia and Slovenia

Data protection is one of the most important issues when discussing open banking. GDPR is another major data privacy issue. The GDPR is a data protection and privacy regulation that applies to the European Union and

the European Economic Area. The GDPR's purpose is to offer people greater control over their personal data while also simplifying the international trade regulatory environment. The General Data Protection Regulation (GDPR) was adopted on April 14, 2016, and it went into effect on May 25, 2018. The EU nations that have implemented GDPR into national legislation are Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia.

Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Kosovo, and Serbia are among the countries that have yet to join the GDPR. In terms of cybersecurity risk, some countries have established practical measures in addition to having a practical law and an organization or institution that deals with the issue. Also, some Balkan countries have taken various initiatives to harmonize their legislation with the GDPR. In Albania, there is a cybersecurity law that applies to communication networks and information systems whose breach or destruction would jeopardize people's health, safety, and wealth, as well as the economy of the Republic of Albania (DLA Piper, 2022). Because of the Data Protection Law's shortcomings and lack of compatibility with the GDPR, the competent authorities in BiH began the process of adopting a new GDPR-compliant data protection law in 2018. However, the Draft Data Protection Law has yet to be implemented because of the difficult political context as well as the Covid-19 outbreak (DLA Piper, 2022). The Montenegrin Parliament is likely to pass a new data protection law that will bring the country's data protection legislation in line with the EU's GDPR (DLA Piper, 2022). However, there is no guarantee as to when, or within what timeline, such adoption (and subsequent implementation) will take place. In North Macedonia, the Data Protection Law is largely harmonized with the GDPR of the European Union (DLA Piper, 2022). The content of Serbia's Data Protection Law is largely consistent with the GDPR. It is now fully effective as of August 21, 2019 (DLA Piper, 2022). The Statute on Personal Data Protection No.06/L-082 ("LPPD") is a Kosovan law that became applicable on February 13, 2019. The law implements Regulation (EU) 2016/679 of the European Parliament (DLA Piper, 2022).

The European Union is a clear pioneer in the widespread adoption of open banking thanks to its PSD2 law. PSD2 regulates third-party service providers and specifies the standards that must be met. With rising cybersecurity risks and blockchain hacking, fintech rules will become more stringent, albeit countries will proceed at their own speed and to their own standards.

All European Union countries have started to implement PSD2, while the Balkan countries, although not members of the EU, some of them have started to take some steps. In a report by the World Bank (2020), they mention that the Western Balkans' regulators have made open banking a promise, as well as harmonisation with PSD2's open banking regulations. Three governments (Albania, Montenegro, and North Macedonia) have made specific plans to put the new directive into effect. In Albania, a new law on payment has been submitted to the Parliament for approval, which will

incorporate PSD2 principles. Therefore, we have included in Table 2 the way all countries deal with these issues.

Table 2. Summary of regulations regarding to Open Banking in CEE countries

Countries from Central and Eastern Europe	Cyber Security	Data Protection	Digital ID	Electronic Payment	GDPR	Open Banking (PSD2)
EU						
POL	YES	YES	YES	YES	YES	YES
ROU	YES	YES	YES	YES	YES	YES
BGR	YES	YES	YES	YES	YES	YES
CZE	YES	YES	YES	YES	YES	YES
HRV	YES	YES	YES	YES	YES	YES
EST	YES	YES	YES	YES	YES	YES
HUN	YES	YES	YES	YES	YES	YES
SVN	YES	YES	YES	YES	YES	YES
LVA	YES	YES	YES	YES	YES	YES
LTU	YES	YES	YES	YES	YES	YES
SVK	YES	YES	YES	YES	YES	YES
SVN	YES	YES	YES	YES	YES	YES
NON-EU						Expected Date of Implementation of PSD2
ALB	YES	YES	YES	YES	NO	LPS 2020 (Bank of Albania)
KSV	YES	YES	YES	YES	NO	LPS 2021-2026 (CBK)
BIH	YES	YES	YES	YES	NO	LPS Unknown*(WB, 2020)
MKD	YES	YES	YES	YES	NO	LPS 2020 (Min. of Finance)
MNE	YES	YES	NO	YES	NO	LPS 2020 (WB, 2020)
SRB	YES	YES	YES	YES	NO	LPS No** (NB of Serbia)

Source: <https://www.worldbank.org/en/topic/fintech/brief/global-fintech-enabling-regulations-database>; <https://bqk-kos.org>; World Bank (2020, p.40).

Note: *Jurisdiction over the financial sector in Bosnia & Herzegovina is at the Entity level, and the data provided in tables is aggregated based on the data on the financial sector of the Republic of Srpska and financial sector of the Federation of BiH. **Latest until the accession of the Republic of Serbia to the EU; LPS- Law on Payment Services, taken from the websites of the respective Central Banks.

The Law on Payment Services, developed by the Bank of Albania and submitted by the Ministry of Finance and Economy, was passed by the Albanian Parliament on April 30, 2020. By aligning local legislation with the EU's, the law marks a significant step forward in the country's EU integration process.

The Central Bank of Montenegro drafted an amendment to the Payment System Law to incorporate PSD2 provisions. According to Montenegro's EU Accession Programme 2020-2022, the adoption of this law is scheduled for the fourth quarter of 2020 (World Bank, 2020). North Macedonia's Innovation Office at the Central Bank of North Macedonia considers PSD2 implementation to be one of their top priorities. The Ministry of Finance in North Macedonia has published a draft law on payment services and payment systems. The new Payment Systems Law will help to maintain an efficient, safe, and stable national payment system.¹

According to the CBK (2021, p.41), the Central Bank of Kosovo envisages in the period 2021-2026 finalizing the transposition of the following EU

¹ Republic of North Macedonia. Draft-Law on Payment services and payments systems. Ministry of Finance (Source: <https://finance.gov.mk/2021/03/05/new-law-on-payment-services-and-payment-systems-fintech-new-services-and-financial-inclusion-of-vulnerable-categories/?lang=en>)

Directives into national legislation: PSD-2, the Directive on electronic money, the Directive on the completion of settlements, and the Directive on the accounts of payments. At the meeting held on November 29, 2019, the Board of the Central Bank of the Republic of Kosovo approved the following: "Regulation on agents and subcontracting of activities of the payment service providers." This Regulation will go into effect on January 1, 2020.²

The National Bank of Serbia (NBS) intends to begin writing modifications to the LPS in order to bring the Serbian legal environment closer to the EU Directive on payment services 2 (PSD2).³ PSD2 data is not available at the Central Bank of Bosnia and Herzegovina.

In a report by Payments Cards & Mobile (2021, p.21), they established an index for open banking. This index includes five categories (category 1 with the most met criteria and up to 5 with the least met). Twelve criteria were selected to build the OBR (open banking readiness):

- Open Banking Strategy, PSD2 implemented
- Instant payment scheme in place, digital A2A payment scheme in place
- Maturity: digital infrastructure (4G/5G), digital banking use, AIS/PIS services added to digital banking
- Open Banking licenses for TPPs, Open Banking APIs active at ASPSPs, domestic Open Banking API standard or an aggregator supported Open Banking API model in place
- Digital ID authentication schemes in the country
- Domestic KYC (know your customer) service scheme in the country.

From our sample in this study, the index for the year 2021 included just Hungary and Poland. Poland is categorized in the fourth category and Hungary in the fifth category.

Discussion

The findings of this paper are very important, especially for the Balkan countries (Albania, Kosovo, Serbia, Montenegro, Bosnia and Herzegovina, and North Macedonia), as they have a general stagnation in the field of digitalization. Since all the Balkan countries will become part of the European Union, the preliminary preparation of their legislation for open banking would be an advantage for Balkan countries. This paper, with all the limitations it includes, has special importance for open banking because it addresses this topic, including these countries in the analysis.

² Central Bank of Republic of Kosovo (CBK, 2019). Regulation on agents and subcontracting of activities of the payment service providers.

³ National Bank of Serbia (NBS, 2019). Serbia National Retail Payments Strategy 2019-2024 (Source: https://www.nbs.rs/export/sites/NBS_site/documents-eng/platni-sistem/payments_strategy_2019_2024.pdf)

Conclusions and Implications

Through public APIs, the open banking model is building a new platform for a variety of services for both customers and suppliers. There are already certain products on the market that provide an integrated and personalized solution with a full array of services. If banks want to stay relevant in the digitalization world, they will have no choice but to follow this path. They must implement a thorough API management policy that can be used to capitalize on the consumer base and to develop new, highly integrated services.

According to the findings of this paper, EU member states have already implemented PSD2, whereas non-EU countries like Albania, the Republic of Kosovo, North Macedonia, and Montenegro have developed long-term strategies to implement PSD2. Serbia and Bosnia and Herzegovina have marked delays in planning the implementation of PSD2. With open banking, traditional banks see FinTech companies and digital challenger banks as competitors that pose a great risk to them. Also, the issue of personal data misuse will be challenging for all countries, so the implementation of data protection laws must be very rigorous.

Open banking will offer many opportunities for CEE countries. It offers many opportunities for the bank's clients, including offering the management of their financial data, improving credit access and improving financial management; an app-based budgeting tool to manage spending; data security; and also offers banks the possibility of providing various services and better economies of scale.

The results of this paper will be useful for regulators in all countries. These results are also important for the banks and businesses of these countries, in order to understand the opportunities and challenges that open banking brings.

This paper has some limitations. Maybe one of the reasons is that the treatment of this topic has not been done enough yet. The lack of much other information, such as factors that may prevent open banking, would have added value to this paper. In the future, it will be an interesting topic to test empirically the impact of different factors on the challenges of open banking at the bank level.

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THE DEVELOPMENT OF DIGITAL COMPETENCES AND ATTITUDE TO ONLINE LEARNING

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Abstract

In the last two years of the pandemics, majority of schools globally switched to online learning methods. Business schools need by their nature to explore opportunities for change. Digital learning may be important for triggering digital competencies among students. Students from two different educational levels (college and vocational) were compared in this study to explore possible differences in their perception of increasing their digital competencies as a side learning outcome of their e-learning activities. Due to various pedagogical substances between the two levels, some significant differences were expected to be revealed. A sample of 200 students was surveyed to obtain data for the statistical analysis to test the hypotheses. The samples were evenly distributed enabling the researchers to run adequate methods for exploration and confirmation of the differences. The results show significantly various views in self-estimation of digital competencies and experience of opportunity for learning from new digitally based educational means.

Key Words

digital competencies, e-learning, business college, vocational business school, digital business models, learning outcome

CHALLENGES OF WOMEN ENTREPRENEURSHIP

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Abstract

Statistics show that woman entrepreneurship is on the rise and that also research in the recent years is more focusing on this topic, however the number of women entrepreneurs is still low. World bank data shows that only 25 - 33 % of all private businesses worldwide are owned by women. It is clear that women and man perceive entrepreneurship differently and that gender performance gap is existing. This is actually quite complex and multidimensional issue. Global Gender Gap Report 2021 predicts that it will take another 267,6 years to close the gender gap in Economics Participation and Opportunity. We will highlight key factors and associated barriers, challenges of woman's entrepreneurship, especially factors relating to culture, gender roles and stereotypes, which different authors are specifying as most important ones. Additional to this, we have conducted an online survey for this topic with Slovenian women entrepreneurs and women students of entrepreneurship. We will present those results and link them with existing research.

Key Words

women entrepreneurship, global gender gap, gender performance gap, gender roles and stereotypes

EFFECTIVE MANAGEMENT OF TANGIBLE FIXED ASSETS

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Abstract

In this paper, the author investigates some conventional tools and criteria-indicators belonging to business analysis, by means of which firms should assess the effective use of their fixed assets. As fixed assets are an element of the business process, and among the most relevant and biggest resources in terms of value, the author asks how to handle fixed assets in the most economical way possible and how to manage them well. Within this context fall their rational use and optimal exploitation. These questions can be answered by means of indicators such as operating leverage (OL), the rate of return of total assets (ROA), depreciation as an average fixed cost (AFC), and overall equipment effectiveness (OEE). The answers are additionally clarified and supported by calculations of these criteria-indicators on the examples of several concrete cases from the real economic sector. Finally, the author suggests raising awareness among managers and educating them so they increase control over their exploitation in order to manage them properly and use them effectively.

Key Words

operating leverage, average fixed cost, return on assets (ROA), overall equipment effectiveness (OEE), fixed assets management

Introduction

In this paper, we treat one of the key elements of the business process, i.e., fixed assets. We thereby deal with that element of business process which belongs among the relevant resources of firms. According to resource-based theory, resources form the basis of individual strategies aimed at creating

values and implementing activities addressing specific markets and customers in a special way, and thus lead to competitive advantages in terms of forming key competencies (Collis & Montgomery, 1995, 1998; Porter, 1996; Prahalad & Hamer, 1990) and achieving lean production (Womack, Jones & Roos, 1991). Among the firms' resources, fixed assets have the highest value; that is, if we ignore human capital, which does not actually have any price.

However, in spite of the rather high capital expenses (capex) dedicated to acquiring fixed assets in order to increase their production capacities, and thus to be able to follow the increasing demand of customers and technological progress, as well as to be in a position to keep pace with the competition, there are quite a few firms that do not perform well. They do not exploit their assets well enough and rationally. Their investment in fixed assets does not reach a satisfactory return on equity (ROE), nor even an adequate cash flow as planned. Their investment projects were economically justified by investment programs, and better performance expressed by higher net sales revenue, earning before interests and taxes plus depreciation and amortization (EBITDA), net profit, higher ROE, higher return on assets (ROA), higher positive cash flow, etc., were foreseen. If we assume that at the time of making the investment decision the investment projects were estimated as being profitable and economically justified, they should have been economically sound, well set up and promising for the firms as investors. Consequently, following question might be raised: Why have these projects not been as effective as planned, as they should have been? Further, why did their real performance and effectiveness fall below the planned goals? And last but not least, why don't these investments reach their planned scope, and why do they not fulfill the goals set at the time of decision making?

These are the questions to which we provide no answers in this paper. The answers to these questions are also provided in the study "Impact of the Slovenian companies' investment ability on their business performance" (Bukvič, 2020) and in other recent papers (Bukvič et al., 2020a; Bukvič et al., 2020b). Instead, we try only to present some conventional tools and criterial indicators, by which the effectiveness of the exploitation of company assets can be monitored and estimated. At the same time, we want to establish the reasons for not reaching the planned goals. If firms did this consistently, then such annoying questions would not need to be raised. The indicators which will be presented in detail in this paper, and their analytical and indicative values illustrated on a set of concrete practical cases, pertain to business analysis as an empirically oriented science. Without criteria business analysis cannot exist, neither can any analysis of fixed assets, or as Bergant (2013) puts it, an appropriately defined criterion is essential for making information. For this reason, it is crucial to study thoroughly the characteristics of several decision options and find out their consequences.

In theory, in the field of business analysis these criteria or indicators have been well known for a long period of time, and in well-performing firms they are used to their advantage as they help them determine how to effectively manage the assets. In this context, a financial ratio ROA will be presented in detail. By using ROA, firms measure the effectiveness of the exploitation of all the assets available to them. They want to find out what return on these assets is achieved at the level of the whole firm. Further, in this context several non-financial indicators for measuring the effectiveness of the exploitation of individual machines and equipment will be presented as well. Those firms that, some years ago, envisioned in their development strategies the long-term goal of introducing Industry 4.0 and the digitalization of their production and other processes, such as the manufacturing execution system (MES), strongly supported by information and communication technology (ICT), are already intensely implementing them. Thus, they are increasing the effectiveness of the exploitation of their assets, and consequently also their business performance, and they will keep doing so in the future.

Operating leverage as a signpost for technical equipment of the firms

In order to improve the productivity of production processes, to improve the quality of the products, to decrease waste, to remove mistakes caused by human being, to better exploit machines and equipment, to optimize and rationalize the entire production process, and last but not least to take care of humanity, i.e., to protect workers from hard conditions (pollution, noise, heave of heavy loads, monotone manual operations, etc.), firms constantly automate and robotize their production processes. Thus, the labor force is getting substituted by fixed assets and the technical equipment involved in the processes is increasing. In economics it is said that variable capital decreases on behalf of fixed capital increase, which means that in the structure of cost price, the labor cost (wages) decreases and the depreciation cost increases. This phenomenon is called the operating leverage increase. The operating leverage rate (OPR) measures the impact of the sales revenue change on the operating profit or EBIT (Bergant, 2010). If a high percentage of total costs are fixed, then the firm is said to have a high degree of operating leverage (Brigham & Houston, 2004). Operating leverage also answers the question of how much EBIT increases if the sales revenue increases by one percent. We calculate it by using the following formula:

$$OL = 1 + FC/OP \quad (1)$$

OL - operating leverage

FC - fixed cost

OP - operating profit or EBIT

According to Bergant (2010), the operating leverage rate can be computed from the change of EBIT and sales revenue:

$$\text{OLR} = \text{Percentage of profit change} / \text{Percentage of sales revenue change} = \\ = (\text{EBIT}_1 - \text{EBIT}_0) / \text{EBIT}_0 / (\text{SR}_1 - \text{SR}_0) / \text{SR}_0, \quad (2)$$

where indexes 0 and 1 denote the beginning and the final sales revenue (SR), and the beginning and final EBIT, respectively.

A necessary condition for computing operating leverage and for using it as a good tool in making investment decisions, and as a good signpost in the sense of increasing the amount of technical equipment in firms or improving it, is to know variable and fixed costs very well. In microeconomics, the distinction between these two kinds of costs derives from cost dependence on production volume. The fixed cost remains independent with respect to production volume until the production capacities change (Tajnikar, Brščič, Bukvič & Ogrin, 2000). The delimitation between variable and fixed costs in firms is not that easy task, for there are some costs that are by nature (and also by economic theory) variable costs, but are designated as fixed costs in real practice. Such a characteristic can be found in labor costs, which have a fixed basis, but their variable part depends on the performance of an individual worker achieving the working standards and norms, and the organizational (production) unit. If we succeed to reach at least 90% accuracy in the delimitation of costs into variable and fixed cost, it can be said that we have got near the break-even-point, which is crucial for business analysis, and in our case for monitoring the operating leverage as well.

What, strictly speaking, influences the value of operating leverage? The higher the percentage of fixed costs in comparison to variable costs, the higher the operating leverage (Mramor, 1993). By a higher operating leverage, the profit increases rapidly above the break-even-point when all the fixed costs are covered, and conversely, below the break-even-point the loss increases, which can be seen in Figure 1. Below the break-even-point the loss increases, and above the break-even-point it is the profit that increases. We are interested in how fast all this occurs.

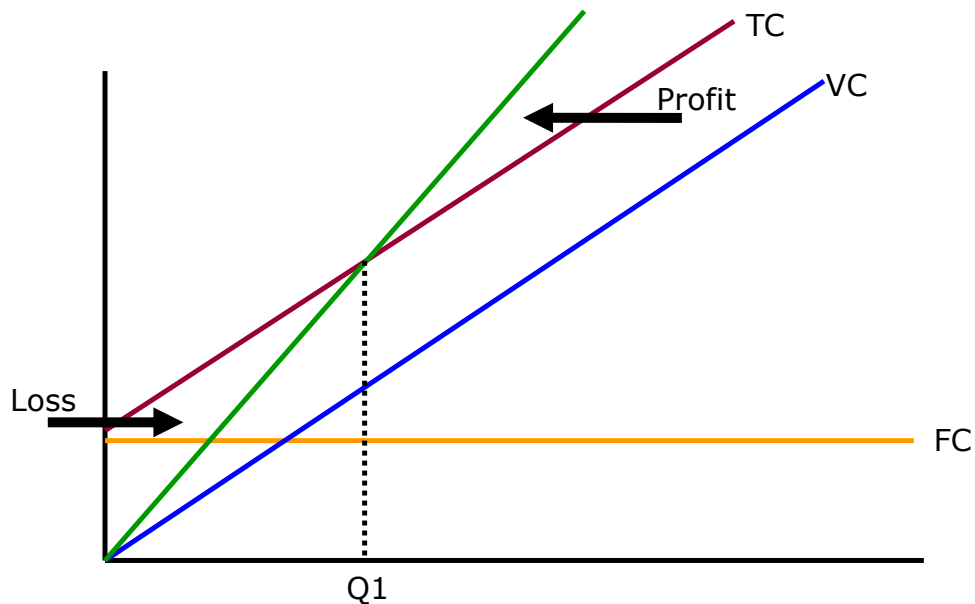
The higher the operating leverage, the stronger profit reacts to the change of sales revenue. The ratio between fixed and variable costs is to a great extent defined by technology. By increasing the sales revenue, the rate of the operating leverage decreases. It is not defined in the break-even-point. Then it decreases and asymptotically draws near the value 1. A high operating leverage means a higher variability of the operating profit or EBIT, and consequently a higher business risk. Business risk can be reduced by a higher sales volume and/or by a higher operating profit (Mramor, 1993).

The firms with a high level of technical equipment, i.e., with a high capital coefficient, also have a high operating leverage. This is typical of the

processing industry, such as the chemical, steel, metallurgical, pharmaceutical industries and others. The operating leverage, which is not as high as in the above mentioned industries, has increased in recent years also in all those firms where automation and robotization of processes take place, and thus the percentage of fixed costs increases in the cost price. These processes occur especially in cases where the firms are obliged to adjust to the augmented demand of their customers if they want to either maintain or increase the market shares of their products and oppose their competitors, i.e., to prevent their customers to switch to the competition. A modernization of the production processes takes place by means of fixed capital, i.e., by tangible fixed assets. An increase of tangible fixed assets can be observed in a fashion similar to leverage in physics (moving a heavy burden by means of leverage). It influences the increase of sales, and thus the increase of the operating profit.

Certainly, the operating leverage can also have a negative effect on a firm's performance. This effect appears when in spite of high investment in new fixed assets, in new machines and equipment, the customers reduce or even stop their orders for various reasons. They might be various kinds of reasons from the macroeconomic perspective, due to a recession or force majeure, such as we are facing this year, i.e., the COVID-19 pandemic. They can also be very specific, related to a certain product a firm produces and which can become obsolescent over night due to innovation or a new technological progress, or a new product which supersedes existing one, or due to new, less expensive products coming from a low-cost country. In all these cases, investments to increase tangible fixed assets become missed or driven investments for the firms. They turn out to be failures. Above all, they are not used and exploited. The firms are left with high and uncovered fixed costs, such as depreciation or high lease instalments if a fixed asset was purchased on a long-term financial lease. Just as the operating leverage positively influences the sales revenue and operating profit due to the increase of fixed capital as a consequence of higher demand and customers' orders, it has a negative influence in the case of an increase of fixed capital as a consequence of investment in tangible fixed assets. The sales decrease, and operating profit even more, which can turn into an operating loss.

FIGURE 1:
REVIEW OF THE BREAK-EVEN-POINT AS A MEANS TO UNDERSTANDING
OPERATING LEVERAGE



Source: Author's own work

The outcome might be even worse. To increase investment in tangible fixed assets, firms generally do not have enough of their own funds (retained earnings and depreciation), but they do have to increase their debt, they have to either borrow long-term bank loans and credits, or enter financial lease agreements, issue corporate bonds, and similar. It means that by increasing their operating leverage they also increase their financial leverage. The latter answers the question of by how many percent net profit increases if the operating profit increases by one percent. The use of debt, or financial leverage, concentrates the firm's business risk on its stockholders. If the firm earns more on investments financed with borrowed funds than it pays in interest, the return on the owners' capital is magnified, or "leveraged" (Brigham & Houston, 2004). Financial leverage can be computed by the following formula:

$$FL = OP / (OP - i) \quad (3)$$

FL - financial leverage

OP - operating profit (EBIT)

i - financial cost (interests)

As a matter of fact, financial leverage can also contribute to the improvement of the business performance of a firm, to reaching a higher net profit, but under one condition, i.e., if the sales volume increases. For the management of a firm, it is important to know that a higher rate of financial leverage means, similar to the operating leverage, a higher variability of net profit and therefore greater business risk (Mramor, 1993). If the sales decrease due to the above mentioned reasons, the financial leverage will pull down the firm, under the water. It will immerse the firm and the firm can find itself on the edge of insolvency. Both leverages, i.e., operating leverage and financial leverage, can operate in both directions and they can represent a heavy burden for the firm in the case of black scenarios as far as sales volume is concerned.

There is a saying in theory, which can be confirmed in practice as well, that one should not load high financial leverage on a high operating leverage. Let us observe a concrete empirical example. The figures are shown in Table 1.

A small firm from the metal processing industry intends to decrease its operating cost by substituting manual work with mechanical work (with machines and equipment). The fixed cost increases due to the purchase of a new machine (additional depreciation of the machine), and variable cost decreases (lower labor cost). Let us assume that the total cost did decrease.

TABLE 1:
SUBSTITUTION OF MANUAL WORK WITH MECHANICAL WORK - OPERATING
LEVERAGE

	<i>Sales</i>	<i>Variable cost</i>	<i>Fixed cost</i>	<i>Total cost</i>	<i>EBIT</i>
Firm A	200	120	100	220	-20
	300	180	100	280	20
	400	240	100	340	60
Firm B	200	100	130	230	-30
	300	150	130	280	20
	400	200	130	330	70

Source: Author's own work

By keeping the sales volume the same, the rate of the operating leverage increases, and consequently so does business risk (the variability of operating profit in the last column in Table 1 increases). If the outlook for sales increase is reliable, then the investment decision was justified. By contrast, if this is not so, the firm has increased its business risk. If sales drop, the operating loss will be higher than it would have been without investing in a new machine.

ROA and effective assets management

Return on assets, ROA, is a crucial and widely used financial ratio. It shows how successfully a firm uses its assets. On the one hand, it is used by analysts to measure the return of a firm, and on the other, it serves researchers to predict financial variables and business events.

ROA is computed by taking into account net profit in comparison to the assets for each individual year. As this ratio is relatively important, it is useful to say that profitability of the assets increases if, under the assumption that the speed of asset turnover remains constant, the economy (thriftiness) increases, or if by the given economy the speed of asset turnover increases (Tekavčič & Megušar, 2002), which can be seen from the following equation:

$$\frac{\text{net profit}}{\text{assets}} = (1 - \frac{1}{\text{economy}}) \times \frac{\text{sales revenue}}{\text{assets}} \quad (4)$$

A recent study by Jewell and Mankin (2011) has shown that, in theory, there are 11 different versions of ROA ratios. The most widely used among them are the following:

$$\text{ROA} = \text{Net profit} / \text{Value of all assets} \quad (5)$$

$$\text{ROA} = \text{Net profit} / \text{Average value of all assets} \quad (6)$$

$$\text{ROA} = (\text{Net profit} + \text{Interests}) / \text{Average value of all assets} \quad (7)$$

$$\text{ROA} = (\text{Net profit} + \text{Interests} (1 - \text{tax rate})) / \text{Average value of all assets} \quad (8)$$

These four ratios represent more than 75% of use of all ROA ratios. The use of different versions of this ratio causes certain difficulties in the benchmarking of firms. For this reason, it is opportune not to consider ROA as only one relation, but as a category of relations. This category includes almost every relation that compares net profit from the Income Statement to the value of all assets or to the average value of all assets from the Balance Sheet. However, each version of this relation can have a valid use in a certain context.

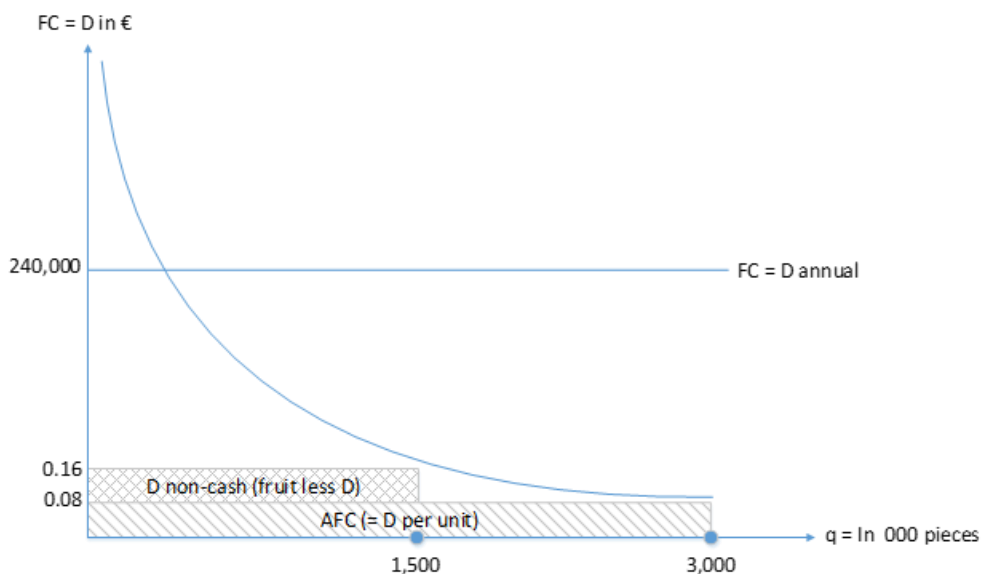
In the ROA ratio, regardless of how it is computed, tangible fixed assets are also included among assets in the denominator. If in the benchmark analysis of this ratio, either to the value achieved in the previous year, or to its average value in the industry (or in a subgroup of the particular industry), or to the value of this ratio of high-rated firms in the industry (as this ratio differs strongly according to the type of industry, its comparison is reasonable only with similar firms in the industry), deviations are found downwards, this warns a firm to check how its individual tangible fixed assets are used and exploited, i.e., its machines, equipment production

lines, etc. In the firms, this can be done by using tools or indicators such as the rate of capacity use, the rate of capacity employment, the rate of effectiveness, and the efficacy of fixed assets (Pučko, 2006). The most widely used indicator is Overall Economic Effectiveness, OEE, which will be shown and explained in the next section of this paper.

Let us consider, in the context of effective tangible assets management, a concrete empirical case from the automotive industry. We are especially interested in how a low exploitation of a fixed asset influences a firm's business performance and its cash flow. Let us consider the case of a highly productive CNC machine for metal processing. This machine can produce (available capacity) 12 000 pieces a day (in three shifts with 8 hours a shift). This metal piece made of aluminum is a constituent part of a turbo compressor, it is an engine bracket, and is basically a semi-product, aluminum cast. This metal piece can be processed through several operations of this CNC machine at the same time, specifically milling, drilling, grinding, turning, etc. The purchasing value of a third CNC machine (it is a double module or a twin) amounts to €1,200,000. Its economic life span is estimated to 5 years. In time, the CNC machine depreciates linearly and regularly. It operates 250 days in a calendar year (half a month is foreseen for refitting and maintaining) and it produces 3 million pieces. Based on these data, we can compute a depreciation cost for one engine bracket piece as an average fixed cost, AFC. The depreciation cost for a piece amounts to €0.08. This also represents a cost item in the cost production price approved by the customer (OEM). Under the assumption that the CNC machine runs normally all the time, i.e., without any deadlock and standstill, and that a given number of engine brackets is delivered to the customer in a one-year period, and, last but not least, that the customer pays regularly, the firm receives an amount of calculated depreciation of €240,000 within its selling price. This is quite an amount in the cash flow of the firm. While dealing with depreciation, we have to be aware that depreciation cost can be embedded in the value of the work in progress and in the value of finished goods, before they appear as the operation costs and influence the operating profit of a particular accounting period (Mayr, 2020). Each quantity of the brackets produced that is smaller than that produced by the machine with its disposable capacity also means a lower inflow of depreciation or a certain deficit in cash flow. At a smaller quantity the produced depreciation as a fixed cost per unit of the product, AFC, is higher. A problem arises when the customer does not accept this higher depreciation per unit of the product as a cost item in the selling price. As the firm does not use a functional method of depreciation, the depreciation cost computed by using the timely linear method is constantly equal. This means that depreciation as cost is accounted totally for the accounting period, and thus it influences the operating profit. Certainly, the operating profit is lower, since with the depreciation cost being equal the sales revenue is lower. Thus, we have a depreciation that can be divided into two categories, the first one being cash depreciation, paid by the customer, and the second one being fruitless (useless) depreciation, which is not paid. This implies

that in our case, besides the fact that depreciation as a cost is never a cash expense or outlay, we can affirm that depreciation is not cash receipt or income in total either. This phenomenon can be illustrated graphically as shown in Figure 2.

FIGURE 2:
DEPRECIATION COST AT DIFFERENT PRODUCTION VOLUMES



Source: Author's own work

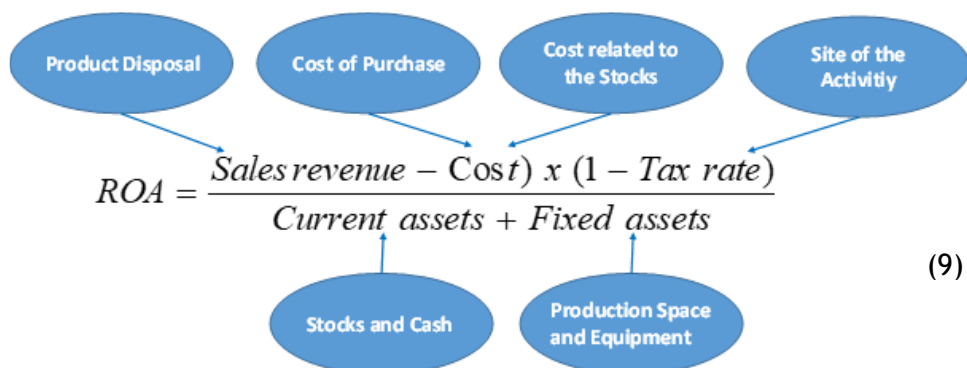
On the basis of this case, we can make the following conclusion: it is very much necessary to keep watch over the full exploitation of the machines and equipment; if not, this reflects on the deterioration of a firm's business performance (lower EBIT due to the lower net sales revenue), it reflects on the financial ratio ROA, which warns us about any insufficient profitability of the assets, and it is also reflected in the cash deficit due to the partially unpaid depreciation.

As we have already referred to the automotive industry, where a strong and long purchasing supply chain dominates, let us expose that the variables of such a chain significantly influence the ROA ratio (Kleindorfer, 2007, as cited in Prašnikar, 2007). While, on one side, traditional supply chain management accounts for only the material cost, production cost, transportation cost, duties and taxes, and conventional warehousing cost, on the other, the firms have started to also account for the production site of their products and services. They have been pushed into doing so by internationalization due to reasons of taxation and other benefits, such as savings deriving from low labor costs.

The increase of risk caused by the reconciliation of supply and demand leads to more attention being directed towards costs related to stocks and

inventories. We argue against the cost having a direct bearing on unsuitable inventories at inappropriate times and in an inadequate places. Figure 3 shows the impact of supply chain management on assets. Decisions on what to keep in the firm and what to organize in co-operation, i.e., outsourcing or off-shoring, influence the cost of the proprietorship of the assets and through the supply chain also inventories and other factors of the ROA ratio.

FIGURE 3:
IMPACT OF THE SUPPLY CHAIN ON THE ROA RATIO



Source: Adjusted from Kleindorfer (2007, 6).

According to Kleindorfer (2007) as cited in Prašnikar (2007), a challenge of the modern supply chain is to establish a right balance between the availability of products and services, cost, and assets management. The risks which recently derive from co-operation and exerting pressure on reducing assets, and consequently also on the ROA ratio, are not yet well understood in the firms. In the process of complex globalization, lean and global supply chains are becoming more and more vulnerable to natural disasters and changes in the balance of power. As the above mentioned author says, the management of these kinds of risks will become a key issue to be confronted by the firms.

Monitoring of overall equipment effectiveness

As already written above in the Section 3 of this paper, it is very useful to monitor and estimate fixed assets from the perspective of their effectiveness. By effectiveness, what is meant is the disposable capacity of a fixed asset in comparison to the value unit of this asset (Pučko, 2006), which can be defined by the following formula:

Effectiveness of the fixed assets = Disposable capacity / Purchasing value of the fixed assets

If the increased value of the fixed assets in a firm also makes for a higher disposable capacity, it will positively influence business performance. The capacity or efficiency of a fixed asset represents the possible volume of business outcomes, generated by the fixed assets of a firm, certainly by those that are in use. In our case, fixed assets are mainly understood to be tangible fixed assets, such as buildings, equipment, long-term production plants, etc. Intangibles, such as patents, licenses, patterns, models, etc., are not the subject of this paper.

In theory, there are several kinds of capacity or efficiency of fixed assets. These are theoretical or in-built capacity, disposable capacity, planned capacity, and real or actual capacity of the fixed asset. The first one cannot be achieved in real life, for it is an ideal state. The second one represents an actually feasible and achievable volume of outcomes in a certain time unit. Disposable capacity can be defined in the following way: from in-built capacity expressed in working hours, the days-off in a business year are subtracted, and also the time (days) needed for annual maintenance of the fixed assets, time (days) needed for regular (daily) maintenance, and also time (days) related to the objective halt of the work on these fixed assets. When we try to assess what the disposable capacity of a fixed asset could be, we cannot avoid the number of working shifts in the firm. We have to account for the maximal possible number of shifts. The planned capacity of a fixed asset is that volume of business outcomes which is set in a business plan and which can be achieved by means of fixed assets in a certain period of time (Pučko, 2006). It is usually lower than disposable capacity. Real or actual capacity is defined by considering the unpredictable halts of machines and equipment occurring in an accounting period and expressed in days, subtracted from the planned capacity of the fixed asset. The causes for these halts are of various kinds, such as a shortage of electricity, lightning strike (which destroys the software of the machine), late delivery of material, bad quality of the raw material, unforeseen defects, long waiting times for spare parts, etc. As a constituent part of the firms' annual business plan, a balance of the capacity of fixed assets is set up, on which basis the different kinds of capacities of fixed assets described above are defined.

Measuring the capacity or efficiency of an individual fixed asset is usually not particularly problematic; however, it is difficult to measure the capacity of all the assets. It is quite a demanding task, for it can be expressed differently. For example, bottle necks must be taken into account, and following them, the total capacity can be assessed. In theory, we distinguish two types of capacity, i.e., extensive capacity and intensive capacity. Extensive capacity refers to time disposable for work, for operation on a certain piece of the fixed asset, or on a group of equal or similar fixed assets in a certain time period. Intensive capacity is a term for the feasible quantity of business outcomes in a time unit (Pučko, 2006). Integral capacity is the mathematical product of both.

We proceed with two concrete cases from real business praxis showing how in a core production plant, producing cores of silica sand by two procedures (cold box and the Croning procedure) for the needs of foundries, mainly for the automotive industry, an Overall Equipment Effectiveness, OEE, is monitored. As a matter of fact, how do they exercise control over the operation of their core shooter machines?

For a better understanding our two cases, let us shortly explain some terms used in this particular field, i.e., the production of silica sand core by the core machines.

There are three production processes used for producing cores: cold box, hot box or Croning, and inorganic.

A core is a device used in casting and molding processes to produce internal cavities and re-entrant angles. The core is normally a disposable item that is destroyed to get it out of the piece. Cores are most commonly used in sand casting, but are also used in die casting and injection molding. For example, cores define multiple passages inside cast engine blocks. One model of a GM V-8 engine requires 5 dry-sand cores for every casting.

For producing cores, core shooter machines or sand core making machines are needed, as well as core boxes as special tools installed in these machines. The core boxes are made by tool makers and are numerous, each for a special kind of core.

Let us now take the first example to find out what the OEE is for a concrete core shooter machine. The data are real, taken from a core production plant that wants to remain anonymous.

Let us assume that the core machine EUROMAC (Croning procedure) can theoretically produce 180 cores in one operation shift (8 hours), or 22 cores per hour.

In 24 hours (3 shifts, 8 hrs each) the core machine EUROMAC can theoretically produce 540 cores.

Three workers (each in one shift) can produce 450 cores on this core machine in one day.

The OEE can be computed as follows:

Real (actual) operation time: 24 hrs

Theoretical operation time for 45 cores: $450 \text{ cores} / 22 \text{ cores an hour} = 20.45 \text{ hrs}$

Theoretical operation time for core of good quality / Real operation time: 20.45 hrs / 24 hrs = 85.2% OEE.

Let us take the second example to find out the OEE for an actual core shooter machine. Similarly, the data are real and taken from the same core production plant.

Let us assume, that the same core machine as in the first example, EUROMAC (Croning procedure), did not operate 2 hours in one day (possible reasons: defect of the core machine, shortage of electricity, replacement of parts, delay of silica sand delivery to the core machine, etc.).

Disposable time of the core machine operation: 24 hrs - 2 hrs = 22 hrs

Disposable time / Planned time = 22 hrs / 24 hrs = 91.7%

In this case, the core machine produced 474 cores in the disposable time of 22 hours. Let us not forget that the core machine can produce 22 cores an hour.

Disposable time: 22 hrs

All cores produced in the disposable time: 474 cores

Theoretical time for the production of 474 cores: 474 / 22 = 21.54 hours

Theoretical time / Disposable time: 21.54 hrs / 22 hrs = 97.9% performance

We have found out that out of 474 cores only 450 cores were of good quality.

24 cores were rejected as waste.

21.54 hrs = 94.9% quality

Disposal x Performance x Quality = 91.7% x 97.9% x 94.9% = 85.1% OEE.

A loss of 15% of the working day (3 shifts) is equivalent to 3.6 of the operation hours lost. This loss must be a warning to the foreman to undertake the steps necessary to prevent any further halting of the core machine.

On top of that, let us stress that in this particular core production plant the production process is completely digitized. Several sensors are installed at the core machines, which communicate all the necessary data about the core machines, the characteristics and data about the production and the products (cores) to the ERP system (enterprise resource planning). Enterprise resource planning is the integrated management of main business processes, often in real time and mediated by software and technology. A

firm can use it to collect, store, manage, and integrate data from many business activities. ERP systems track business resources, such as cash, raw materials, production capacity, and also various kinds of orders, such as work orders, purchase orders, payroll, etc.

All the data related to the activities described in a production work order are transmitted by a MES (manufacturing execution system) data collection module. The manufacturing execution system digitizes manufacturing processes and integrates business systems using a cost-effective, high-quality, and resource-efficient methodology based on Industry 4.0 technology. Operational visibility can be improved by near real-time information, which increases reliability and product traceability using solutions based on the Internet of Things (IoT). The reported data collected from the lower levels of individual process are recorded in MES. These data are used for the analysis of the entire business process and sent back to ERP.

This has been implemented with the introduction of SinaproMES software solution modules. The process, from receiving the customers' orders to product delivery, has been shortened (a lean production concept). The capacities, effectiveness, and reliability of the machines and equipment have been increased significantly (total management of the productivity). The quality of the products has been improved (fewer complaints and claims coming from the customers). The firm keeps on monitoring worker shifts, raw material (silica sand), and the disposability of the machines and equipment (OEE). The firm supplies its customers just-in-time (JIT). MES hinders the occurrence of faults and defects (Poka-Yoka). The whole production process has been improved (PDCA).

Conclusion

In this paper, we have exposed one of the key elements of the business process, or one of the crucial resources if we lean either on business analysis as a science, which is by its characteristics an empirical and generally cognitive method (Tintor, 1992a and 1992b; Mellerowicz, 1961 and 1952; Lipovec, 1983), or on resource-based-theory, which helps us understand how a firm reaches its comparative advantage and how it keeps it through time (Barney, 1991; Teece, Pisano & Shuen, 1997). We dealt with tangible fixed assets from the perspective of how to handle and use them properly and economically, how to manage them well. This includes their rational use, their optimal exploitation, and making decisions on when it is reasonable and economically justified to replace them (although the last is not a subject of this paper). As such, the paper deals with the element of the business process which has the highest value among the resources of firms. Usually, firms spend a lot of money on purchasing tangible fixed assets, which constitutes more or less risky long-term investment decisions. Firms usually experience a shortage of their own funds. For this reason, when closing the financial budget of fixed assets, mainly those of high value, borrowed funds have to be acquired as well. Issuing new stock for

investment funding is quite rare for corporations. Investment decisions on purchasing new fixed assets are long-term strategic decisions, the consequences of which show up in the long run.

In this paper, investment decisions related to enlarging production (in order to increase production capacity) are not dealt with. What is addressed is the question of how to use and exploit the existing fixed assets, mostly in order to generate maximal returns in their economic life span, which finally influences their business performance. Similar to how we say that it is the worst possible scenario for a firm to have its cash tied up in stocks and inventories - stocks and inventories are a necessary evil - we can assert the same for fixed assets if they are not used and exploited. It is true that stocks and inventories represent real assets, they are the firm's property, but unfortunately this property does not bring anything to the firm or to its owners, no returns, no cash. Conversely, if a firm cannot sell its stocks of finished goods, they gradually lose their value, and finally the firm is forced to sell off the stocks and hence its property. Something very similar can be claimed for fixed assets. A firm has to spend a lot of funds to purchase them. It even has to borrow the capital to invest in the fixed assets. If these rather expensive fixed assets do not generate cash, they are a wasted investment. Management should already be worried if these assets do not operate at full capacity, if the sales revenue drops and the operating cash flow decreases, therefore, if these assets do not generate added value for the owners.

Fixed assets are not supposed to be sold like stocks of finished goods. As far as disinvestment is concerned, firms should have recourse to extreme measures, especially when the management finds out that a firm does not need certain fixed assets anymore. However, they would only lose if they sold them. They would get less than they paid for them. Consequently, the fixed assets must be fully exploited and properly and regularly maintained. Preventive maintenance is crucial, since it allows the firm to preserve the operational condition and capacity of its machines and equipment. In this paper, some tools and criterial indicators, such as operating leverage, ROA, OEE, and AFC, are presented and applied to practical cases. They may help the management of a firm to keep watch over the rational use of their fixed assets and monitor their functionality and effectiveness.

We suggest raising awareness among managers and educating them so they may view fixed assets as representing some of the key resources of any firm. From the perspective of the basic postulates of resource-based-theory, which states that resources are long-lasting, constant, difficult to define and not easily understood, as well as being very difficult to transfer and irreproducible since they are owned by firms, management should take over their control, so that they can be managed properly.

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RECOGNIZING THE IMPORTANCE OF NETIQUETTE: STUDENTS VS. PROFESSORS

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Abstract

Purpose: In the spring of 2020, schools across the globe closed their doors to prevent the spread of the viral outbreak during the COVID-19 pandemic. This physical closure led to a rapid shift to remote learning which placed more responsibility for learning on educational staff and students. As one of the major stakeholders in the education process, the experiences of educational staff and students during remote learning are worth examining to inform future Decision-making policy. The purpose of the paper was to investigate how students and educational staff perceive the code of conduct in a virtual environment and how is it influenced by the perception of the effectiveness and competence of self-evaluation. The virtual environment requires special adaptation.

Methodology: The survey was created with a professional online survey platform and carried out between 27 May 2021 and 27 August 2021. We invited 120 higher education institutions to participate in the survey, out of which 30 responded. As a result, a total of 101 professors and 225 student respondents were surveyed.

Results: We confirmed gender-based differences in netiquette importance perception among participants. Our results confirmed a significant connection between netiquette importance perception and distance learning efficacy perception as well as distance learning competencies for self-evaluation.

COVID-19 epidemic, code of conduct, virtual environment, professors, students

INTRODUCTION

Although distance learning is not a new phenomenon, all schools were forced to organize their distance learning practically overnight at the time of the closure of public life due to COVID-19. In recent years, distance learning has become widespread in both secondary and higher educational institutions around the world. However, the pace of the spread of remote technologies has significantly increased with the introduction of physical distancing and quarantine against the background of the development of the COVID-19 pandemic, since most educational institutions in various countries of the world were closed to hold the spread of the virus (Danchikov et al., 2021). Some studies show that students can even perform better in an online learning environment (Bai et al., 2016; Law et al., 2019), considering the rules and teaching procedures in the online environment are well thought out and clearly understood by all the stakeholders involved in the online learning process. They claim that successful online learning is aimed at the social dimension to resist the absence and overcome the distance (Adnan & Anwar, 2020). The authors concluded that the successful experience of full-volume online learning requires the use of active learning strategies to create opportunities for communication and exchange. Indeed, some studies report that students value active learning strategies in online environments more (Bolliger & Armier Jr, 2013).

However, the code of conduct is crucial, be it in the classroom (known as etiquette) or in the online learning environment (known as netiquette). Netiquette is derived by merging the words network and etiquette (Scheuermann & Taylor, 1997).

Many educational institutions were not fully ready for the mass introduction of distance learning, and if in developed countries schools and universities had the opportunity to use developments in the educational process of various programs and technologies for conducting online learning, then in countries and regions where there were serious problems with the implementation of distance learning, attempts were made to use the possibilities of social networks and messengers for organizing the educational process (Danchikov et al., 2021). The threat of COVID-19 has presented some unique challenges for institutions of higher education. All parties involved—students, faculty, and staff—are being asked to do extraordinary things regarding course delivery and learning that have not been seen on this scale in the lifetimes of anyone currently involved (Hodges et al., 2020).

The urgency of the problem of our study can be presented in the form of a contradiction between the social requirements for the proper organization of distance learning and the state of readiness for it as individual participants in the educational process and the education system. Pri sem se osredotočamo na netiquette in online learning, saj teoretiki poudarjajo njegovo nujnost za učinkovit in fokusiran učni proces (Lamb & Callison, 2005; Scheuermann & Taylor, 1997).

Based on the works of the mentioned authors, we set up the following research question: How do professors and students perceive netiquette and how do they apply it to online classes?

LITERATURE REVIEW

Epidemics and COVID-19

An overwhelming majority of the world's enrolled students have experienced the temporary closing of school during the COVID-19 pandemic in an attempt to encourage social distancing and therefore decelerate the transmission of the virus (Viner et al., 2020). Implementing a physical distance policy, which then becomes the cornerstone for home education, by using information technology that is unexpectedly introduced, also surprises instructors, teachers, and parents when they are not ready. "Educators are shocked because they have to change the Studying process, which was originally face-to-face learning; now, all studying is done online" (Nadeak et al., 2020). The policies for implementing "online education carried out by schools and universities in response to the COVID-19 pandemic have hit almost the entire world" (Crawford et al., 2020).

A retrospective analysis of scientific research suggests that the origins of distance learning as a means of education date back to the 19th century when the University of London offered "correspondence training" (Syvyi et al., 2022). The term "distance learning" was officially recognized in 1982. Distance education began to become more widespread in the 1990s in countries such as the United Kingdom, the United States, and France. In Slovenia, such education began to be introduced and developed only at the end of the 20th century and mainly in the higher education system.

There is a growing trend in online education courses in higher education institutes (Kohan et al., 2017). Technological innovations and digital communications have led to social changes, and have been the main stimulant of educational transformations in recent decades (Benar & Jenkins, 2008).

Management of learning can be described as "the process of managing which includes planning, organizing, controlling (directing) and evaluating activities related to the learning process of the learner by including various factors in it to achieve goals" (Nadeak & Naibaho, 2020). In managing learning, "the teacher carry out various steps of activities ranging from

planning learning, organizing learning, directing and evaluating the learning carried out" (Pedaste et al., 2015). The "notion of learning management can be interpreted broadly in the sense that it includes all activities on how to teach students from learning planning to learn assessment" (Macfadyen & Dawson, 2010).

Learning management is "one of the management of competency-based curriculum implementation" (Naibaho, 2019).

Active learning in the online environment

Student engagement is not only a challenge in traditional face-to-face classrooms but also, and debatably more so, in online courses (Bolliger & Armier Jr, 2013). Online learning involves information, instruction, and/or interaction through the Internet or an Intranet using instructional materials and tools such as Web-based resources, e-mail, discussion boards, blogs, chats, and videos. Schools increasingly are offering structured online learning programs as primary or supplementary learning opportunities (Lamb & Callison, 2005). Allen and Tanner (2005) have described active learning as "seeking new information, organizing it in a way that is meaningful, and having the chance to explain to others" (Allen & Tanner, 2005).

In general, the advantages of distance learning are that it allows one to solve several educational tasks that are necessary for the implementation of a continuous educational process in a remote format. It allows organizing the training of school students and students both in an individual mode and in the classroom form through various technologies (Danchikov et al., 2021).

Many mechanisms of active learning can be utilized to enhance student learning (Khan et al., 2017). One learning model that has been core to the development of active learning strategies is Bloom's Taxonomy. Bloom's Taxonomy of educational objectives is one of the most widely used ways of organizing levels of expertise. Bloom's Taxonomy defines three domains of educational activities: Cognition, Affective, and Psychomotor (Krathwohl et al., 1969). Each of these domains identifies levels of expertise, which can be measured through knowledge-based goals, emotional goals, and skills-based goals (Churches, 2010). Currently, this methodology is most commonly used in the higher education setting for knowledge-based goals (Khan et al., 2017). However, Bloom's higher-order cognitive skills, such as application, analysis, synthesis, and evaluation, demonstrate a deeper comprehension of the material. These cognitive skills are strengthened through active learning strategies such as visual learning, cooperative learning, debates, drama, discussions, role-playing, and peer learning/teaching (Bonwell & Eison, 1991). These activities allow students to direct their learning, which is especially important in science disciplines because scientifically minded people are curious, constantly inquiring and are lifelong learners (Madhuri et al., 2012).

The seven principles of good education practice provide a framework for learner-centered teaching and learning guidelines, in the classroom and the online environment (Phillips, 2005). The first principle is high expectations, which are created by the educator for the learner to have ambitious goals toward success. The second principle is reciprocity and cooperation among students, which encourages learners to derive learning from interaction among peers. The third principle is active learning, which encourages the learner to be actively involved with the learning process, thus learning faster and retaining knowledge longer. The fourth principle is time on task, which ensures that the learner is spending sufficient time engaged in the course content to obtain objectives and outcomes. The fifth principle is feedback, which includes meaningful interactions between learners and peers, educators, and technology. The sixth principle is student-educator interaction, which promotes significant interaction between the student and the educator in structured and unstructured ways to facilitate learning. The seventh principle is respect for diversity, which promotes learning while learners and educators respect different ways of knowing and cultural values.

Teaching code of conduct in a virtual environment

Ethical codes are supposed to regulate behavior in a society. This is especially important when considering how to decide and how to act under new circumstances potentially found in the virtual environment. This code of conduct needs acceptance. This acceptance arises from consensus-oriented procedures. To achieve such a consensus, we should develop a sensitivity to ethical aspects (Kuntze et al., 2002).

The ethical principles are (American Psychological Association, 1992): (1) competence, (2) integrity, (3) professional and scientific responsibility, (4) respect for people's rights and dignity, (5) concern for others' welfare, and (6) social responsibility.

The virtual world is asked to find some ways to introduce the teaching of ethics into the applied virtual science curriculum (Forester & Morrison, 1994).

The use of digital technology poses novel challenges associated with traditional ethics concepts related to privacy, confidentiality, informed consent, professional boundaries, conflicts of interest, documentation, client abandonment, and professionalism, among others (Phillips, 2005). This technology is and will continue to be, a significant component of the contemporary work landscape.

Therefore, it will be necessary to set a code of conduct for the needs of virtual work in education, both on the part of teachers and students. Our paper provides basic guidelines and minimum standards.

Following the rise of online learning a new term “netiquette” emerged to describe the guidelines for socially acceptable rules of online conduct. More specifically the term netiquette has been described as the conventions of politeness recognized on Usenet and in mailing lists (Scheuermann & Taylor, 1997). In the context of the new Internet global culture, attempts are being made to identify common standards of etiquette. Identifies the following most frequently cited specific suggestions for online users: think first; write in upper and lower case; avoid abbreviations; be concise; avoid smileys; don’t flame; don’t take offense easily; don’t evangelize, and know the audience. Netiquette breaches do not always bring retribution. Most breaches of politeness and courtesy may do no more than reflecting poorly on the individual user. One who knows the rules of this new culture may well have an advantage over one who does not (Scheuermann & Taylor, 1997).

Netiquette for online communications and more effective learning include these practices (Lamb & Callison, 2005):

- Focus on one subject per message and use pertinent and understandable subject titles.
- When posting a long message, inform readers at the beginning that there is more content than normal, or divide the posting into two or more messages.
- Check-in on the discussion frequently. Online participation means that the student “attends” online classes on a regular and frequent basis and does not wait to unload contributions at the end of the discussion period or the end of the course. Making up for “lost time” only costs all other class members additional time to read such late comments.
- Give proper credit to quotations, references, and other sources of information not only because it is proper, but because this will guide fellow students to get more information relevant to the data or opinion presented. Links to relevant websites from which the information was taken or summarized are expected.
- Capitalize words to highlight a point, or perhaps to show the title of a resource. Otherwise, a message in all caps is considered SHOUTING!
- Get permission to forward or use a classmate’s message for further discussion.
- Humor is helpful, but there is sometimes a fine line between humor and criticism that is considered an insult. Emoticons such as! and ;) help to signal agreement, approval, and light-hearted contributions.

Netiquette or Internet etiquette is the new way of defining professionalism through network communication (Mintu-Wimsatt et al., 2010). Researchers have suggested that online students generally have a clear understanding of what is within the realm of acceptable netiquette. For virtual classroom purposes, netiquette deals with the notions of respect, harmony, and tolerance often manifested in the tone or function of the interactions (Curtis & Lawson, 2001)(Brown, 2001)(Curtis and Lawson 2001; Brown 2001).

How do keep gathered students in a virtual learning environment?

The organization of distance learning allows one to motivate students to solve educational problems since the very form of such training is interesting for students. In addition, each student can contact the teacher for advice at any time, which also increases the availability of knowledge and improves the level of feedback in the teacher-student interaction.

Online education programs are being developed for a number of reasons (Lamb & Callison, 2005):

- To accommodate more students in less space.
- To address individual learning styles and needs.
- To offer wider course offerings, particularly advanced courses.
- To provide opportunities for students at risk for dropping out because of pregnancy, high mobility, disciplinary problems, or other reasons.
- To reduce long bus rides for rural students.
- To address scheduling conflicts.
- To accommodate the needs of accelerated learners.
- To extend local offerings with outside experts and resources

The secret of successful distance learning lies in a reliable technology that provides online distance learning classes using attractive distance learning methods. Parents and their school-age children note that technology can improve their distance learning experience. However, it was determined that there are links between logistics barriers and distance learning. These barriers included difficulties in using distance learning and insufficient training of students, dissatisfaction with the form of distance learning, and the inability of distance learning to meet the needs of students. The purpose of the work is to consider the possibilities and disadvantages of using various approaches to organizing distance learning during the pandemic (Danchikov et al., 2021).

METHODOLOGY

In the present research, we adopted a research methodology developed by Raspor (Raspor, 2021). This new approach allows researchers to collect and analyze data about professors as well as student administration office professionals and students. Furthermore, with the use of this methodology, a comparison between specific findings and conclusions can be made.

Our research analyses the situation among professors and students in Slovenia during the COVID-19 crisis and lockdown.

Research Instrument

The research was based on a survey questionnaire; it was the 1ka online survey, submitted on 27 May 2021. It was up and running between 27 May 2021 and 27 August 2021. We covered two groups. Professors and students.

The questionnaire was sent to 160 addresses: universities, higher education institutions, and higher vocational colleges. We collected our data using an online questionnaire based on a seven-point Likert scale. Participants were asked to express their agreement with statements where »1« is used for »I strongly disagree« while »7« means »I strongly agree«. So all items were positively worded.

The objective of the article is to reveal the importance of the code of virtual education on the effectiveness of the educational process.

Demographic data

Demographic data Professors

Our study included 85 Slovenian professors, 41 males, and 43 females. The participant's age structure is presented in the table (Table 1: Demographic data for professors). Many of them are teaching in two or more institutions. More precisely, 53% or 62%. 75% of respondents are teaching in a private institution, while 25% work in universities. Our participants have different levels of experience. Therefore, participants' experiences and their structure according to academic titles are displayed in the table below.

Table 1: Demographic data for professors

Work comprises:	Frequency	Percent
Lectures	15	17,6%
Lab. exercises	5	5,9%
Both - lectures and lab. exercises	65	76,5%
Total	85	100%
Institution in which you are employed	Frequency	Percent
Faculty within University	21	24,7%
Independent Higher Education Institution	64	75,3%
Total	85	100%
At how many institutions are you currently holding lectures/lab. exercises?	Frequency	Percent
Only one	32	37,6%
More than one (in this case, please take this survey only once.)	53	62,4%
Total	85	100%
Working status	Frequency	Percent
Employed	32	37,6%
Freelancer (teaching presents my main source of income)	17	20,0%
Supplementary work (work on a contract, aside from full-time employment or post-retirement employment)	36	42,4%
Total	85	100%
Work experience in this field	Frequency	Percent
Up to 3 years	9	10,6%
More than 3 and less than 10 years	17	20,0%
10 years or more	59	69,4%
Total	85	100%
Academic title	Frequency	Percent
Professor	9	10,7%

Associate Professor	9	10,7%
Assistant Professor	21	25,0%
Senior Lecturer	13	15,5%
Lecturer	26	31,0%
Lector	1	1,2%
Teaching Assistant	5	6,0%
Other:		0,0%
Total	84	100%
Field	Frequency	Percent
Humanities	17	10,6%
Engineering and Technical Sciences	24	15,0%
Medical and Health Sciences	24	15,0%
Agricultural Sciences	7	4,4%
Social Sciences	54	33,8%
Mathematics and Natural Sciences	15	9,4%
Theological Sciences	16	10,0%
Arts	2	1,3%
Other:	1	0,6%
Total	160	
Gender:	Frequency	Percent
Male	41	48,8%
Female	43	51,2%
Total	84	100%
Age range	Frequency	Percent
< 25 years old	1	1,2%
26-40 years old	16	18,8%
41-60 years old	56	65,9%
> 61 years old	12	14,1%
Total	85	100%

Demographic data Students

Our study included 156 Slovenian students, 49 males, and 107 females. The participant's age structure is presented in the table (Table 2: Demographic data for students). What is interesting in this research is that some students are over 26 years old (48%) and already employed (30%) while only 31% of them are only students. Namely, students in Slovenia have to work to be able to study or they balance full-time work with part-time study, due to the nature of their work.

Table 2: Demographic data for students

Field of study	Frequency	Percent
Humanities	15	7,8%
Engineering and Technical Sciences	53	27,6%
Medical and Health Sciences	14	7,3%
Agricultural Sciences	1	0,5%
Social Sciences	72	37,5%
Mathematics and Natural Sciences	26	13,5%
Art, design and media	3	1,6%
Other:	8	0,0
Total	192	
Study programme	Frequency	Percent
Higher education programme	25	16,2%
Associate's degree programme	57	37,0%
Bachelor's degree programme	31	20,1%
Master's degree programme	29	18,8%
Integrated Master's degree programme (Long-cycle Master's degree programme)	6	3,9%
Doctoral degree programme	6	3,9%
Total	154	100%
Enrolled in the academic year 2020-2021	Frequency	Percent
Freshman year 2020-2021	50	32,1%
Sophomore/Junior/Senior year 2020-2021	96	61,5%

Graduate	10	6,4%
Total	156	100%
Current employment status:	Frequency	Percent
Student	49	31,4%
Part-time employment through Student Service (Student Employment Referral)	30	19,2%
Full-time employment through Student Service (Student Employment Referral)	12	7,7%
Unemployed	5	3,2%
Part-time employment	55	35,3%
Full-time employment (contract or permanent)		1,9%
Freelancer	3	1,3%
Other:	2	
Total	156	
Gender	Frequency	Percent
Male	49	31,4%
Female	107	68,6%
Total	156	100%
Age range	Frequency	Percent
< 25 years old	81	51,9%
26-40 years old	49	31,4%
41-60 years old	26	16,7%
> 61 years old	0	0,0%
Total	156	100%

Hypotheses

H1: The higher level of experience with the internet environment leads to a higher level of netiquette importance perception.

H2: The higher level of distance learning efficacy perception leads to a higher level of netiquette importance perception.

H3: The higher level of self-evaluated distance learning competence before Covid leads to a higher level of netiquette importance perception.

H4: The higher level of stress perceived due to distance learning leads to a higher level of netiquette importance perception.

RESULTS

Professors

Table 3 presents how professors perceive a code of conduct in an e-learning environment. Most of the statements were rated very high (5 or more on a scale of 1 to 7). There are some options for improvement regarding the statements: “Join the e-classroom at least 5 minutes before class (4.41) and come prepared” and “Think of possible questions that students might ask during the lesson and prepare answers (4.77)”. We believe that professors are not yet fully aware of the importance of being significantly more prepared to communicate with students in a virtual environment as compared to regular classes, as these are entirely different didactic processes.

Table 3: How professors perceive behavioral code of conduct in e-learning environment

	N	Minimum	Maximum	Mean	Std. Deviation
Join into the e-classroom at least 5 minutes before class.	86	1	7	4,41	2,054
Be sure you check your equipment well prior to this time, to be sure your devices function properly (webcam, microphone, headsets).	85	1	7	6,13	1,280
Hold e-lecture from a quiet area that has minimal background noise or movement.	85	3	7	6,28	,983
Start your e-lectures and exercises in time.	86	3	7	6,66	,625
Stick to the schedule.	84	3	7	6,42	,853
Set a positive example by following the code of conduct, as well as other university rules.	86	1	7	6,43	,952
Make sure you keep your camera on at all times.	86	2	7	5,98	1,292
Eliminate distractions (mute your microphone when students are speaking to keep the audio channel free of clutter and available to the speaker). Turn your microphone on when you want to resume presentation/lesson.	86	3	7	6,28	,903
Be respectful and stay focused on the lesson. Don't play with your computer or other devices.	86	3	7	6,58	,711
Encourage students to participate in discussion throughout the lesson.	86	1	7	6,06	1,172
Don't eat or drink during class. In general, you shouldn't	86	1	7	6,51	,967

engage in activities that don't contribute to the lesson.					
Come prepared. Think of the possible questions that students might pose during class and prepare answers.	86	1	7	4,77	1,962

Students

The perception of behavioral code of conduct and e-learning environment is slightly lower among students than among professors (Table 4). For example, students do not want to turn their camera on during online classes (Make sure you keep your camera on at all times (the professor can remove students from the meeting if their videos are off) - 3.15). Also, with the ease of obtaining food and being unseen, students are more likely to eat or snack during online classes (4.77). Furthermore, students, and professors as well, do not come to the lectures prepared (4.66).

Table 4: How students perceive behavioral code of conduct in e-learning environment

	N	Minimum	Maximum	Mean	Std. Deviation
Join into the e-classroom at least 5 minutes before class.	157	1	7	5,12	1,763
Be sure you check your equipment well prior to this time, to be sure your devices function properly (webcam, microphone, headsets).	156	1	7	5,42	1,642
Attend e-classroom from a quiet area that has minimal background noise or movement.	157	1	7	6,04	1,100
Make sure you keep your camera on at all times (professor can remove students from the meeting if their videos are off)	157	1	7	3,15	2,130
Eliminate distractions (mute your microphone to keep the audio channel free of clutter and available to the speaker). Turn your microphone on only when	157	3	7	6,57	,681

you want to say something or you are asked to speak up).					
Pay attention and stay focused on the lesson. Don't play with your computer or other devices. Pay attention and listen so that you can respond appropriately when it's your turn to speak up.	157	1	7	5,41	1,625
Participate in the discussion.	157	1	7	5,15	1,709
Be respectful. Listen to your professor and colleagues. Refrain from using strong language or making offensive comments.	157	4	7	6,63	,691
Don't eat or drink during class. In general, you shouldn't engage in activities that don't contribute to the lesson.	156	1	7	4,77	2,019
To be able to participate, you need to pay attention and listen. Don't interrupt the person who is speaking.	156	1	7	6,41	,963
Come prepared. Think of the possible questions that professor might ask you during class and come up with answers	157	1	7	4,66	1,880

DISCUSSION

Hypotesis testing

All hypotheses were tested on both our samples, students and professors. Our dependant variable is the netiquette perception in both regression models. It is measured on a 7-point Likert scale with eleven items. Crombach Alpha value for the dependant variable is 0,803 in the professors group and 0,821 in the students' group. All independent variables are also measured with 7-point Likert scales described in table 5.

Table 5: Independent variables scales

Variable	Students			Professors		
	Cromb. Alpha	Items	VIF	Cromb. Alpha	Items	VIF
Experience with the internet environment	0,849	7	1,306	0,876	7	1,114
Distance learning efficacy perception	0,945	3	1,752	0,927	3	1,122
Self-evaluated distance learning competence before COVID-19	0,898	11	1,209	0,852	11	1,121
Stress perceived due to distance learning	0,897	9	1,706	0,896	9	1,087

All Likert scales resulted in a high internal consistency since Cronbach Alpha is well beyond the marginal value of 0,7 (Hair et al., 2010). Furthermore, all of our variation inflation factors are below the marginal value of 10, which means there is no redundancy between the independent variables, so multicollinearity doesn't seem to be the problem in our models (Hair et al., 2010). Correlations between variables are low to medium (Table 6).

Table 6: Pearson correlation coefficients

	Experience with internet environment student	Distance learning efficacy perception student	Distance learning competence before Covid	Stress perceived due to distance learning student	Netiquette perception student
Correlations Students					
Experience with internet environment student	1				
Distance learning efficacy perception student	0,356**	1			
Distance learning competence before Covid	,408**	,266**	1		
Stress perceived due to distance learning student	-,330**	-,610**	-,125	1	
Netiquette perception student	,127	,423**	,359**	-,301**	1
	,116	,000	,000	,000	
Correlations Professors					
Experience with internet environment professor	1				
Distance learning efficacy perception professor	,185	1			
Distance learning competence before Covid	,278*	,181	1		
Stress perceived due to distance learning professor	-,014	-,305**	-,055	1	
Netiquette perception professor	,146	,236*	,346**	-,168	1
	,189	,034	,002	,133	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

We created two multivariate regression models, one for the student sample and one for the professors. Regression coefficients are displayed in table 7.

The student model confirmed our hypotheses H2 (H2: The higher level of distance learning efficacy perception leads to a higher level of netiquette importance perception) and H3 (H3: The higher level of self-evaluated distance learning competence before COVID-19 leads to a higher level of netiquette importance perception). Perceived distance learning efficacy and distance participant learning competence perception is significantly positively related to netiquette importance perception among students ($p=0,001$ and $p=0,000$). Similarly, our hypothesis H3 is confirmed in the professors' group ($p=0,03$), while we couldn't confirm hypothesis H2 among professors based on our dataset. Hypotheses H1 (H1: The higher level of experience with the internet environment leads to a higher level of netiquette importance perception) and H4 (H4: The higher level of stress perceived due to distance learning leads to a higher level of netiquette importance perception) didn't result in statistically significant coefficients. We compared netiquette perception levels between genders in both groups of participants. The mean difference in the student group is 0,37 ($p=0,017$), and in the professors' group 0,34 ($p=0,023$) We detected a statistically significant difference in both groups. Women are evaluating the importance of netiquette more than men.

Table 7: Regression coefficients

Dependent Variable: Netiquette perception student	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4,110	,448		9,183	,000
Experience with internet environment student	-,070	,053	-,110	-1,333	,185
Distance learning efficacy perception student	,160	,049	,312	3,255	,001
Distance learning competence before COVID-19 self-evaluation student	,228	,059	,308	3,875	,000
Stress perceived due to distance learning student	-,071	,057	-,118	-1,252	,213
Dependent Variable: Netiquette perception professor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4,236	,627		6,760	,000
Experience with internet environment professor	,060	,051	,135	1,184	,240
Distance learning efficacy perception professor	,094	,061	,176	1,540	,128
Distance learning competence before COVID-19 self-evaluation professor	,207	,093	,252	2,212	,030
Stress perceived due to distance learning professor	-,048	,057	-,094	-,840	,404

RESEARCH LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Due to the conditions we were faced with for the first time, there were no similar studies available to make a comparison. Certainly, there will be plenty of similar studies in the future, as the given topic is the object of interest. However, we will have to focus on older research in the case of making comparisons.

CONCLUSION

Online learning can be defined as instruction that is delivered on a digital device intended to support learning (Clark & Mayer, 2016). As such it is becoming increasingly important for education during a global health emergency, as it offers the opportunity to stay in touch, albeit remotely, with classmates and teachers and to monitor lessons (Ferri et al., 2020). However, most professors and students, in particular, were not ready for this kind of learning. Furthermore, the form of learning was also not appropriate, as the normal curriculum was simply transferred to an online format, regardless of the different concepts of e-learning. As a result, we cannot call it online learning. Instead, we can refer to it as Emergency Remote Teaching. The COVID-19 pandemic has created significant challenges for the global higher education community. For teaching to be more interesting and students can understand the material presented, it requires teaching creativity from each teacher, such as providing material explanations using video, teaching combined with Zoom video conferencing, or other applications to explain the material to be given to students (Nadeak et al., 2021). The adoption of online learning in a situation of emergency represents a need, but it has also stimulated experts, policymakers, citizens, teachers, and learners to search for new solutions. This is producing a shift from the concept of online learning to emergency remote teaching, which represents “a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances” (Hodges et al., 2020).

Today’s young people live in a media environment where the use of computers, Internet resources, and mobile devices is part of their daily lives, they are (Syvyi et al., 2022), in the words of Alexander Kuleshov, “digitally born”, and this cannot be ignored. Students seemed ready for distance learning but forced distance learning during quarantine was a challenge for all participants in the learning process: students, teachers, and parents. It was very difficult to organize quality education using digital technologies, motivate students and give advice on overcoming technical problems. Global quarantine has made its unexpected adjustments and forced everyone to urgently learn digital tools and new pedagogical approaches and methods (Hamaniuk et al., 2020).

The research question was: How do professors and students perceive netiquette and how do they apply it to online classes? Finally, we can say that although netiquette is already fairly present in the online learning environment there is still room for improvement.

Our findings suggest that coming to lectures fully prepared is crucial for delivering effective lessons and facilitating good online class discussions. Learning online can have many benefits and allow for new ways to engage and challenge students. We should not undermine the power of preparation and planning for these are critical components of effective learning. After all, those individuals with higher distance learning efficacy and those who

have stronger distance participant learning competencies are much more likely to reach a high level of academic success.

Our goal is to promote netiquette in online learning and among academic staff to raise the effectiveness of e-learning (Mintu-Wimsatt et al., 2010) and motivation in students (Kurubacak, 2007). Since the promotion of netiquette largely depends on the culture of educational institutions (Abzari et al., 2010) it is on them to accordingly respond to changing educational needs and build such a culture that will support those values and beliefs.

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LUXURY OFFERS AND RURAL TOURISM - TOUR OPERATOR ROLES

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Abstract

Tour operators can be important mediators in the realisation of demands for new, specialised and individualised products, encouraging the development of partnerships and specialisation of receptive tourist agencies. The purpose of the paper is to, on the grounds of the conducted comparison of the offers by generalists and specialists, sublimate the recommendations for the development of specialised luxury offers in Croatian rural tourism. When we compare the analysis of tour operator initiatives, we concluded that domestic tour operators' luxury offers are realised within the context of island tourism, nautical tourism and several Croatian urban destinations. On the other side, by tour operator specialisations, the level of quality of personalised offers is raised for elite travellers and experience is perceived as the result of the partnership between destination stakeholders. Future research of this problem area should be focused on adoption of specialised strategies for the development of rural areas, with emphasis on stakeholders' roles.

Key Words

luxury offers, rural tourism, tour operators, specialisations, partnerships

1. INTRODUCTION

Domestic and international tour operators follow modern trends and development of technology as they fight for their market positions in a highly competitive environment and can be destination promoters and leaders of their development. The topic of this research is tour operator initiatives in

the luxury tourism of Croatian rural areas. Under the influence of globalisation and technological development, apart from classical services, such as 5-star hotel accommodation, top gastronomic experience, luxury car transfers and wellness services, rich clients are looking for added value in the form of special experiences, original activities and private, exclusive excursions. By the analysis of the offer factors of selected national and international tour operators, representation is researched of rural tourism offers and potentials for the related growth and development of tourism stakeholders. Using comparison, luxury package arrangements between domestic and international tour operators are analysed, with an accent on experiential contents in rural areas. The research hypothesis is the existence of connections between tour operator initiatives and the development of luxury offers in rural tourism. Development of luxury tourism is based on flexibility, innovativeness and adaptation to consumers by provision of high-standard service.

The following scientific methods were used for the preparation of this paper: analysis of the secondary data sources, deductive method, method of analysis and synthesis, and the method of comparison. A lack of available literature on luxury tourism by domestic authors has been compensated by the use of a large number of international publications, scientific articles and research results.

The paper consists of four main units, with introduction and conclusion. In the first part, theoretical contributions are clarified, related to the research subject and potentials for the development of rural tourism from the aspect of luxury offers. In the second part of the research entitled "Comparative review of the offer of the analysed luxury package arrangements," the research methodology is described, and a comparative analysis conducted of the offers of the selected mediators, generalists and specialists. A slower adaptation is perceived of the Croatian tour operators from the aspect of the speed of inclusion of rural areas as an escape from the everyday routine. As opposed to tour operators-globalists, the domestic tour operators-specialists are assuming faster the trend of adaptation to additional services for clients, but still not as fast as the international specialists while, from the aspect of technological adaptation, it proved to be the best out of all the four selected examples. In the final part of the paper, strategic goals are proposed for the development of luxury rural tourism. In conclusion, realisation of the research goals is justified, based on the results and reflexions of the presented theoretical knowledge on tourism practice. Attention is drawn to the perspectives of development of elite tourism and future projection in the formation of luxury initiatives according to the expected experiences.

2. LUXURY TOURISM - THEORETICAL UNDERSTANDING

Although it appears that tourism is an industry which everyone understands, it is extremely complex (Chang, 2007). The concept of luxury tourism in today's world actually perfectly matches the original meaning of that word, given that luxury, i.e. elite tourism, can be described as added value tourism. The concept of luxury tourism has many definitions, both in academic circles and in practice. From the economic aspect, the definition and the concept both have to be clear and objective while, from the cultural and social perspective, it is difficult to achieve an equally "clear" definition. Luxury (or elite) tourism has existed since tourism and travel have existed. The definition alone of luxury tourism often represents a challenge, as it is not considered as a selective form, but a version of any form of tourism. As such, luxury tourism can be classified in numerous selective forms of tourism, even tourism based on natural, social and specific features (Kesar, 2013), which also enables it to be imbued with rural tourism. The origin of the word "luxury" dates back to the mid-17th century, and comes from the Latin word "luxus", which literally means "a surplus" (Kozak, Correia, 2015). Luxury tourism is frequently also called elite tourism, and includes tourist stays in destinations which provide an exceptionally high quality of services, which requires constant improvement and innovation of the offer. Innovations are the key concept of today's business and entrepreneurial studies, as well as of social sciences (Hall, Williams, 2020). The importance of the perception of luxury service in tourism has been increasingly growing, as rare and unique products are considered as luxury, where innovations determine the quality. Consumption of prestigious brands, uniqueness, quality and belonging to a social circle are no longer the only things considered as elite offers, but also experiential (sophisticated) experiences. The technological innovations are therefore important, due to the specificities of the luxury products (Nueno, Quelch 1998, Dall'Olmo Riley, Lacroix, 2003, Iloranta, 2019). This form of tourism most often does not represent mixing tourists with the local population, neither does it represent their mixing with other categories of tourists (Business Diary Lexicon, 2020). Luxury tourism is considered as a niche of the tourism industry which deals in the offer of unique, original and elite services and experiences, in order for travellers not to have to worry about travel organisation and in order to, at the same time, get added value (Popescu, Olteanu, V., 2014., Amadeus, 2016). In luxury tourism, we can include the following (Future Laboratory, 2012):

- Stays at "all inclusive" luxury 5-star hotels and resorts,
- Luxury cruises,
- Unique and personalised travel with authentic experiences,
- Golf tourism,
- Private jet travel,
- Extreme experience tourism, such as deep ocean travel, space travel and travel in unexplored destinations (Antarctica, Iceland, Greenland and others),
- Personalised travel in yachts and ships, river cruises,

- Small luxuries, like VIP airport transfers, and similar.

Culture and people are becoming parts of the tourism product (Burns, Novelli, 2006), and such is the case also in luxury tourism. We are today witnessing transformations in tourism as a paradigm which promotes sustainable destination development (UNWTO, The Institute for Tourism Zagreb, 2016). Elite tourism is associated with transformative tourism through sustainable forms of development, volunteering in the community, travel related to education and awareness of the environment.

Despite a slightly difficult situation with the possibility to define the concept of luxury in tourism, some researchers succeeded in identifying and describing its main characteristics using the epithet “prestigious” instead of “luxury.” Vukonić (2005) describes the development of Croatian tourism quoting that Villa Angiolina in Opatija is considered to be the first luxury accommodation facility in Croatia. Vigneron and Vigneron and Johnson (1999) identify the characteristics which turn the brand into prestigious or luxury (SEA, 2014). These characteristics are:

- Eminence - consumption of prestigious brands is perceived as a symbol of status and wealth; the more expensive the products, the bigger the recognisability and perceived value,
- Uniqueness - if anybody can use the same brand, it is not considered as prestigious,
- Hedonism - prestigious brands meet emotional needs better than ordinary brands,
- Quality - prestige is defined by design, functionality and superiority in quality,
- Social circle - desire to, by consuming a prestigious brand, be considered as a part of an exclusive social circle.

The post-Covid strategies have led to the intensified orientation towards luxury, especially in the segment of nautical tourism and sustainable developmental forms (Legrand, 2021, Gunawan, et al. 2022).

Based on the analysis of theoretical contributions it can be noted that natural human evolution, in accordance with the development of technology, under the influence of globalisation and the global pandemic, creates a need for a better and more detailed definition of elite tourism, resulting in numerous questions about the future of luxury in tourism.

3. POTENTIALS OF RURAL TOURISM THROUGH LUXURY OFFERS

The value of luxury travel cannot be defined only by the price and quality of the service, i.e. the product. It is necessary to consider it from several aspects. In 2018, 18 million technically literate individuals showed their interest in destinations of luxury, expressed through increased tourist expenditure (Capgemini World Wealth Report, 2019). Apart from the financial and functional value, social and personal value are often the

factors which stimulate consumers to purchase the products (Visitbritain.org 2020). It would prove impossible to presume in what measure a person experiences financial and functional, i.e. personal and social value when purchasing an elite package arrangement, as the decision is made on the basis of a personal experience: however, the value components are the same for everyone. In the branding of luxury products, experience is the main framework of the marketing strategies (Atwal, Williams, 2009, Rohit 2013). Furthermore, it is necessary to consider how elite consumers and younger generations who have not yet, but have the potential to, experience luxury. Several key trends have been identified in the luxury tourism industry, which can also be implemented in rural tourism of the future: (adapted according to Horwath; 2011)

- a) Search for authentic (undiscovered) rural destinations - the demand for authenticity, new experiences and exclusivity is on the increase, which will highlight certain destinations with powerful cultural and traditional values.
- b) Need for personalisation - creation of personal relationships which are based on trust between tour operators and travellers and travellers and local residents.
- c) Simplicity, flexibility and faultless service - product prestige by merging of rural offer elements (from planning to return, including transport, accommodation in rural area, services and tours).
- d) Luxury tourism as a channel of recovery following the pandemic - a growth in demand is expected due to its "resting" during the pandemic.
- e) Ratio between the price and the quality as a prerequisite for planning travel - with the development of technology, information has never been so available and fast. Internet and social media have a considerable effect on travel planning and booking.

Consumer groups in this segment of tourism can be determined in two ways; a group which implies that luxury products must have classical features, such as isolated 5-star accommodation, wellness services and top gastronomic experience, with a possibility that a client comes across as better than others, and the second group which associates luxury more with a unique experience than with material property and which is focused on personal fulfilment of their dreams more than comparing themselves with others. This is particularly important in elite holidays when clients expect constant accessibility, as well as inconspicuous and elegant solving of requests. Clients themselves are the ones who can provide most information about the future of luxury in tourism. Their search for new experiences (the more exclusive, the better), together with the amount of information provided by technology set up the predispositions for the creation of a true personalised product in elite tourism.

4. COMPARATIVE REVIEW OF OFFER OF ANALYSED LUXURY PACKAGE ARRANGEMENTS

4.1. Description of research methodology

For the needs of this paper, an analysis was conducted of luxury package arrangements offered by domestic and international tour operators. Four examples of international tour operators' sales were analysed (from the aspect of both generalised and specialised offers). The problem area being researched is the question of whether Croatian tour operators are able to follow new modern trends in luxury tourism well and fast enough, or whether they are still lagging behind the international tour operators. The analysis was carried out on the grounds of the following criteria;

- Package arrangement as luxury travel,
- Presentation of destination,
- Activity, service and experience offers,
- Accommodation category,
- Contact and accessibility for clients.

The purpose of the conducted analysis was to determine how professional and specialised the given examples of tour operators are, how well, in marketing terms, they present the rural area products, whether they follow modern luxury tourism trends and whether they place them through offers of authenticity and new experiences. The methodology of the study was the use of online catalogues and offers for guests for data collection in order to find the best practice examples. For the explanation and the review of the examples from practice, the comparison, descriptive and analytical methods were used.

4.2. Selected stakeholders in tourism

The first selected tour operator is a generalist and one of the largest and most successful Croatian tour operators. The Internet platform offers an exceptionally large amount of information, with a large search engine of dates and accommodation. In the same place, the website offers private accommodation and hotels, special themed offers (from wellness to family holidays), activities such as cycling, destinations and rent-a-car services, which can appear confusing for clients.

Offer of luxury travel is not highlighted in any way; on the contrary, it is possible to reach the offer for Dubrovnik only through the search engine which elaborates a very long list of accommodation facilities in the town, without filtering (villas and private accommodation facilities ranging between 2 and 5-stars), which is rather awkward for clients who are especially looking for top accommodation and who are not satisfied with the amount of information which they need to enter in order to reach the desired offer. When 5-star accommodation is selected, it includes only information about the chosen hotel, without any information about the destination or available activities, rural excursions and additional services.

Such a type of presentation demonstrates a tendency towards mass tourism and lack of the sophistication which is required for attracting elite clientele.

Table 1. Comparative analysis of presentation of luxury package arrangement by tour operators

CRITERIUM OF DESTINATION PRESENTATION	Domestic tour operators		International tour operators	
	Generalist	Specialist	Generalist	Specialist
Package arrangement, separated as luxury travel	Generalist separates luxury travel as special type of travel and directs to the sub-page for luxury travel.	The whole website is specialised exclusively for luxury travel and services.	No differentiation of travels on the website, no filters, offer exclusively based on accommodation.	The entire website is specialised exclusively for luxury travel and services.
Destination presentation	Brief presentation of luxury zones, with an accent on the tailor-made offer, intended to suit clients' needs.	Elaborated story about the destination, gives an impression of travel with a feel of luxury.	Does not exist, the main search engine only gives a choice of destinations to direct to the list of accommodation facilities.	Elaborated story about the destination, creates a vision of travel to rural areas with a feeling of luxury.
Choice of activities, services and experiences	List of generic activities, without the possibility of booking or personalised services and activities.	Available personalised services, excursions and activities on request.	Does not exist.	Available personalised services and activities, with an accent on a possibility of organisation of any service which is not mentioned on the website.
Accommodation	Choice of accommodation with filters for separating 5-star hotels and luxury villas and apartments.	High representation of rural tourism.	Choice of several 5-star hotels, mixed with lower-rank hotels.	Wide choice of private luxury villas and apartments, no hotels on offer.
Contact and accessibility for clients	Generic call centre and online form for queries.	Email address, contact telephone number, available for personal contact on each sub-page.	Generic call centre and online form for queries.	Email address, contact phone number available for personal contact on each sub-page.

Source: Own preparation, according to available providers' website

The selected tour operator - specialist is specialised for organisation of luxury travels solely in the Dubrovnik region, offering an extremely wide range of personalised services. The Internet platform design is different from the other three analysed tour operators; the page is black with golden details and pointing to luxury. The accent is on representation of the company as a very competent and professional travel organiser for the city of Dubrovnik and rural region. (Table 2.).

The entire Internet platform is in fact a large catalogue of personalised services, from accommodation through private excursions on land and at sea, to transfers, etc. In all the texts on tour operator's offer, the use is evident of key words and phrases, such as exclusive, elite, luxury, adapted to suit your needs, attention you deserve, adapted to suit your wishes, etc., on the basis of which it can be concluded that the offer is written exclusively for elite clientele, in a very attractive way.

The offer includes the choice of accommodation (luxury private villas and apartments), excursions on land and sea, organisation of individual personalised excursions and experiences, private transfers, sailing and yacht rental with or without skippers, and group programmes.

The company's website is not available in the Croatian language. It can be presumed that the tour operator is directed towards international elite clientele, and that it has adapted its visual identity in line with the target market.

The span of services which are offered to clients is by far the best in comparison to other tour operators, with emphasis on the possibility of adaptation to any service the clients require, also including the possibility of organisation of activities which had not been included in the offer. Excursions are actually experiences, very professionally developed, in order to, in advance, create the feeling for travel, and they are original, such as tuna fishing with fishermen and horse riding on islands. Such an approach is in accordance with new business trends. Transfers are provided in all forms, both on land or at sea, exclusively using luxury means of transport.

The selected international tour operator's head office is in Germany and deals with a wide (global) travel distribution. The international generalist's Internet platform is pleasant for the eye and well designed, offering relatively user-friendly use, adapted to users. It contains a page dedicated to luxury travel, which is easily accessible, although, when the page opens, the design remains the same and does not, in any way, show to clients that they are actually searching the site for elite travels. The search engine is always displayed for entry of the date of arrival, departure and number of persons. Due to the data protection of the selected business subjects, names of selected tourism companies are not further disclosed. Hereinafter follows a comparative analysis of the selected international tour operators (Table 1.).

The tour operator - international specialist is an American tour operator, specialising in luxury travel and services, selected for this case study as it is one of the best world organisers of luxury travel and, geographically, it is very distant. The company's motto is "Experiential luxury travel," which promotes the idea of unique and personalised experiences for clients.

4.3. Opportunities and limitations of tour operator's offers in rural areas

There are no substantial differences between the Croatian tour operators - generalists and the international tour operators - generalists. Although it is necessary to mention that the domestic generalist has the smallest range of luxury travel offers, it has represented rural holiday villas. International tour operators present luxury travel as a separate page. In fact, the domestic wholesaler's offer can be called luxury because of 5-star accommodation but, in essence, this is not entirely due to a lack of the promotion of additional services. There is no presentation of rural areas and marketing is maximally directed to accommodation facilities. Together with a few listed activities and attractions, in the offer of both tour operators, Dubrovnik, for example, is not presented as an elite destination.

Personalised services, as well as unique experiences which cannot be purchased elsewhere, are almost non-existent, which shows that generalists are not following the world trends of development of luxury tourism, nor are they adapting to them. Technology, apart from the Internet platform, is not maximally used with the national mediator. There is presence on social networks, but a personalised approach, such as applications, is not used. International providers are ahead of technology use and offer a possibility of installation of the application, in order for clients to be able to follow their travel.

Table 3. Comparative analysis of supporting elements of experiential content

CRITERIUM OF COMPARATIVE ANALYSIS	International tour operator		Domestic tour operator	
	Generalist	Specialist for luxury travel all over the world.	Generalist	Specialist for luxury travel and the Dubrovnik region.
Tour operator's motto	Not visible on the Internet home page.	"EXPERIENTIAL. LUXURY. TRAVEL "	Not visible on the Internet home page.	"ANCHORED IN EXCELLENCE"
Destination marketing	List of the main activities in the area.	Very powerful. Elaborated detailed story about the luxury of Dubrovnik as a destination.	Does not exist.	Experiences and excursions explained in detail, but not the town itself.

Luxury travel as separate category in generalists	Exists.	x	Does not exist.	x
Additional services - PERSONALISED	Do not exist.	Exist on request.	Does not exist.	There is a wide choice with detailed explanations.
Unique experiences which cannot be purchased elsewhere	Do not exist.	Do not exist.	Do not exist.	There is a wide choice with detailed explanations.
Loyalty programme	Does not exist.	Does not exist.	Does not exist.	Does not exist.

Source: Own preparation

Generalists avoid direct contact with clients; all information is based on the search engine instead of personal correspondence. There are no evident key words or phrases that are used for attracting elite clientele. On the other hand, specialists demonstrate their inclination towards attraction of elite clientele by their marketing initiatives. The Internet platform design is significantly simpler and more effective; there are no search engines, but clients are constantly directed to personal telephone or email contact, thus showing availability and individual service. Accommodation choice is restricted to several luxury facilities (quality above quantity), and the offer of individual personalised services is on this level, especially in tour operators - specialists who offer a very wide range of unusual and original experiences, with an accent on the possibility of organisation and activities which are not mentioned within the said offer. It is this very sale of experiences that confirms how, in this study, we can conclude that tour operators - specialists lead before other tour operators in the offer of rural area experiences. Apart from following this trend of elite travels, they also follow others, such as a possibility of clients being able to, themselves, arrange their own holiday, rental and transfer using luxury cars with or without a driver or a skipper, and the promise of an unforgettable holiday which nobody else will experience. Although modern trends in tourism predict an increased use of technology and activities on social networks, in the current business of all tour operators, this cannot be seen. They are all present on social networks but are insufficiently active to transfer a part of their sales to Facebook or Instagram. The loyalty programme, which is one of the most important initiatives of the future of luxury tourism, has not been implemented in practice so far.

5. DISCUSSION

Croatian tour operators must specialise in rural area tourism, with a special emphasis on creation of top quality, ensuring provision of additional offer which will match that kind of service. To achieve this, the strategy of tourism development should include the Creation of partnerships, Creation of experience network and Education of present and future employees.

The evident goals could be achieved by the opening of an increased number of 5-star hotels, investment in promotion on social networks, presentation of the country as a luxury destination; however, this unfortunately challenges the infrastructure and legal frameworks which are out of date and not able to follow the speed at which changes occur, imposed by elite travellers and global tour operators.

Tour operators - specialists follow the world trends and expand the offer well enough to attract the very elite clientele, modernise their business and are increasingly beginning to provide experiences instead of material services, which is the future of luxury tourism. If generalists decide to engage in elite tourism, their primary task will be to separate the clientele from mass tourism and create new Internet platforms, specialising in that field.

6. CONCLUSION

As luxury travel becomes increasingly sought after, in more and more destinations the need emerges for diversification of the offer of excursions and special services and the demand is growing for destinations which offer fascinating cultural and traditional experiences.

With the emergence of an increased number of wealthy citizens, the development of technology and with increasingly better traffic connections, luxury tourism is expanding unbelievably fast, in urban and rural places. By the evolution of luxury tourism, in many countries the need is evident for changes in the existing offer, i.e. the need to convert luxury offers into sophisticated experiences on areas that are still out of mass tourism development concept. The process alone slightly reminds one of a curator who selects elite artefacts in order to create a perfect exhibition. Apart from the offer of content, it is necessary to also concentrate on a very high service quality - by directing travellers through experience, selection of individual and unusual packages in order for their holiday to be perfectly constructed exactly for a client, according to his/her preferences and interests. The aim is to create an arrangement which will transport luxury consumers to the world of enjoyment, where time stands still, and nothing disturbs the course of top relaxation. It is of the utmost importance to concentrate on details and the value of the services, which have to respect a fair ratio what is invested and generated, which should be the focus of future research of this problem area.

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WHY IS ONLINE MARKETING THE FASTEST GROWING FORM OF MARKETING?

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Abstract

The introductory hypothesis of this paper is that online marketing is the fastest growing form of advertising.

This basic thesis is supported by evidence based on the facts that:

- collecting and usage of data about (potential) customers is much easier via online marketing,

- this data (which represents added value) enables better (M)ROI than other forms of advertising,

- because this form of advertising is more profitable, it is used by most small businesses, which represent $\frac{3}{4}$ of all businesses.

When this paper combines this information it confirms the basic thesis that online marketing is the fastest growing form of advertising.

Key Words

direct Marketing, online marketing, target groups, MROI, short term ROI

1. What is marketing and its purpose

The central role of marketing in the enterprise stems from the fact that marketing is the process via which a firm creates value for its chosen customers.

Value is created by meeting customer needs. Thus, a firm must define itself not by the product it sells, but by the customer benefit provided. (Silk 2006, 3)

This can be summed up with the newly re-defined Kotler's 4p theory (Product, Price, Placement, Promotion), nowadays 5p Product, Price, Placement, Promotion and People.

And specifically the last pillar of this “nowadays Kotler's” 5p's is the most important.

The fifth P is perhaps the most important one, because without people, you can't have a marketing program. List all the points of human contact that may be important to the success of your program. (Hiam 2014, 32)

People are the main goal and main asset in the field of marketing. So the main task of marketing is to discover what people actually need, and from that point on, develop a product or service. This means that marketing examines the needs of consumers and then satisfies them by offering, via advertising, tailor made products/services and ads.

1.1. The biggest assets of marketing

So advertising companies are in business in which its biggest asset is information about their customer. The better information they have about the average customer, the better chance they have to “close the deal” i.e. conversion.

Example:

So let say that we have a new eyelash serum from a well known women cosmetic brand. The most possible scenario is ,that that brand already has data about their average consumers from their previous campaigns.

Instead of starting the campaign by generically advertising via billboards, flyers, ads on TV, etc., the brand will start a new campaign about the new eyelash serum using the data about their average consumers from their previous campaign.

That data has all the demographic information about previous consumers and from that point on, the brand can define their lookalike customers.

Simple logic lets us know that the chance of someone in this group of people, buying this product, is much higher than offering the same ads to the general population.

Even if more purchases of this product would be made from the general population, the percentage of purchases made from the total population would be lower than the percentage of purchases made within the target group. That would mean that ROAS and ROI would be higher for the so called target marketing strategy.

So advertising (as a sub-domain of marketing) is like any other business that is bound to profit. That same profit therefore depends on the quality of the consumer information and how efficiently that information was used.

1.2. Two factors of

Using the information about the consumer effectively, depends on two factors. The first factor is the advertisers creativity of using and applying information into practical (real world) advertising and the other factor is the choice of advertising the advertiser will use.

We have to take into consideration, that different strategies of advertising offer different final results. But they are all bound to the same final results that can be summed in ROI index.

Like any other company, advertising companies are bound to make their work profitable. Meaning that the assets that are put into advertisement will as the end result give a positive profit.

That can be emphasized in the simplest equation:

all advertising costs

total advertising profits = ROI of specific advertising campaigns

This claim is supported by: “Pressure is being place on marketing to justify their expenditure and translate them into likely financial outcome, which is the language of business firm” (DW.Stewart 2008 in Mishra 2011)

2. Based on the short term ROI advertisers or their clients are aware of the benefits of online advertising that is a direct form of marketing

As technology has been changing over decades most of the marketers are focusing in online marketing activities like website promotions etc. (Mishra 2011, 88)

Mishra gives a prime example of the early days of online marketing practices, where in 1990, BMW had started its promotion in online business environment assuring that they would expect ROI against these expenses. They had over 9 million hits in the first few periods of the campaign. But at that time, they didn't know, whether hits means conversion or something else and could not meet the financial gain (Rob Dub 2004).

Little did they know back in the days, that by today, a standard hit on a web site would actually mean a lead, and from which you can build a long term strategy.

Meaning, that once you get the information about a potential customer you have to work on that information on a long term. So the real added value here is information, not the actual conversion.

The biggest problem of calculating ROI in marketing is well described in Mishra's paper published in European Journal of Business and Management Vol 3, No.6, 2011.

There he points out: "Anne Klein (2003) says that Marketing ROI is best tool to find out best place to invest in marketing. It is difficult to calculate ROI as it is very difficult to track (Anne Klein 2003). MROI start from your campaign and need to track response around the campaign. Once tracking system is developed well to know about the response in terms of revenue or in terms of awareness then the next step is to calculate the following variables:

- 1: Expense of the program,
- 2: Revenue generated
- 3: Profit earned
- 4: Contribution Margin. (Mishra 2011, 89)

David Stewart (2009) argues in his research paper that the marketing ROI has been major concern for each and every business organization as well as for academicians. There has not been yet developed any standard methods or metrics to calculate marketing ROI. David finds in his study that each and every organization have its own method of calculating marketing ROI or return on Marketing investment, but in most of the cases 70% of Marketing officers could measure to short term impact of marketing activity not for result which is expected to after some period of time. He also categorized marketing ROI basically two categories:

- 1: Short term performance evaluation.
- 2: Long term performance evaluation. (Mishra 2011, 89)

That is maybe true, but thus one must argue of what is the time span for which ROI can be defined as long term performance?

The basic problem that I see with Stewart's paper is the lack of understanding or giving into account, that there are several forms of sales that are intertwined with marketing i.e. advertising strategies.

We have to take into account the fact that online marketing is a direct form of marketing. Direct form of marketing is known to be performance oriented.

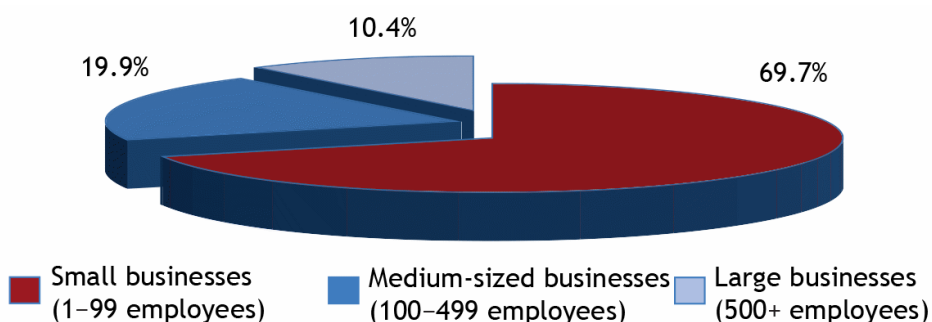
Performance marketing is all about fast results. If you're too focused on short-term goals, like more impressions or ad clicks, it's easy to lose sight of your overarching business goals.

/.../you might get some quick ROI if you run a performance-based campaign effectively. However, it might not translate into long-term business profitability unless you stay focused on your larger goals. (Patel 2021)

We have to take into account that fast and easy profit (which ROI is an indicator of success) is tempting to every business. This is even more often the case with smaller companies that cannot afford larger investments and better strategic plans with a long term marketing strategy. Online marketing therefore offers a much more affordable and high ROI rate advertising temptation to smaller businesses.

Because there are almost $\frac{3}{4}$ of small businesses (in a reference to all businesses), out of which a very high percentage falls under that temptation, there is a logical conclusion of why online marketing, as a form of direct marketing with short term strategy, is expanding so fast.

This graph shows the ratio of the percentage of small, medium and large enterprises in Canada. Here it is evident that small and medium-sized enterprises, who are subject to these short-term strategies, represent a large proportion.



Source: Statistics Canada, Labour Force Survey; and ISED calculations.

But the question is why would smaller businesses fall under the temptation of high ROI Online marketing strategies that offer only a short term strategy?

Under the fact that: “Long-term marketing goals are accomplished through an extended, consistent marketing strategy that includes short-term wins.” (Millie 2019)

The following text will try to show, that although online marketing does offer short term goals, it also at the same time, (with the difference of classic forms of advertising) creates conditions to long term goals.

3. But what is online marketing and what makes it so “great”?

Online marketing as part of wider digital marketing is as Ward puts it “...the art and science of selling products and services over the internet. The art

involves finding marketing strategies that appeal to your target market and translate into sales, while the science is the research and analysis necessary to measure the success of those strategies.” (Ward 2020)

In a more practical look an online marketing is equivalent to internet marketing or web marketing. That includes 2 main different branches. Payed and so called free online marketing (OM).

Free OM is socalled because you don't need to pay for ads on a specific platform. It's a part of content marketing, which can be done on forums, pages, emails or social media (SM), via regular posts.

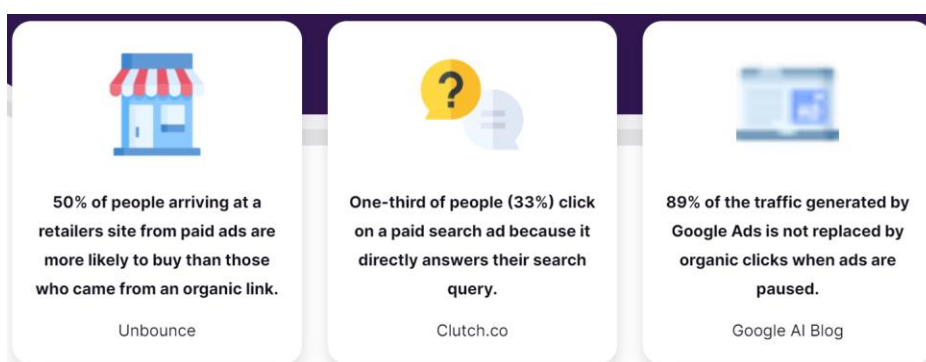
Payed version of OM is called PPC or pay-per-click. Meaning, that you have to pay for your ads and/or each click on text ad, video ad or picture ads.

PPC is basically a whole segment of OM across different channels like Yahoo, Google, Facebook, IG, Tik Tok, etc. But the basis on which this advertising is based, is how to pay for advertising via specific channel.

PPC advertising revolutionized the online advertising industry, and today, PPC advertising generates 99% of Google's revenue. Google reported revenues of \$8.44 billion for the quarter ended December 31, 2010, an increase of 26% compared to the fourth quarter of 2009. Given that PPC is a non-intrusive form of advertising it has become a popular advertising technique on the Internet nowadays. It involves a company displaying its ads on various search engines, where the company pays the owners of those search engines every time a user clicks on one of their ads. Visitors click on the ads out of genuine interest therefore this form of advertising is said to generate a much better success rate than the traditional pay per impression methods such as banners, or pay per view based advertising (Drolias, 2007 in Khraim 2015, 182).

The most used PPC tool nowadays is Google Ads. It has been presented to be an efficient and cost effective way for small businesses to acquire new customers.

And this is the statistics to support that initial drive to why use PPC as part of OM as-specially if you are a small business.



(Source: <https://ppcprotect.com/statistics/ppc-statistics/>)

Which confirms our introductory hypothesis as to why online marketing is the fastest expanding form of advertising. But the key point of widely spread OM is not only due to the drive of smaller businesses spreading OM, as described by the facts in the second chapter of this paper, but is due to the fundamental reason of the high short term ROI, which is ensured by target groups that are formed on OM channels.

3.1. What are target groups and why do they provide high ROI rate

The beauty of target marketing is that aiming your marketing efforts at specific groups of consumers makes the promotion, pricing, and distribution of your products and/or services easier and more cost effective and provides a focus to all of your marketing activities. (Ward and Binder 2020)

In a nutshell, target marketing (on the bases of user data) allows you to offer your products/services via OM channels or pages to a specific group of people that (on the bases of user data) have high probability of conversion. That data is the actual high value asset of OM aswell as its target groups that are formed from that data.

For example, a cycling store has a sale of old stock bikes. Instead of advertising through billboards on the highway that would be seen by a high-volume of people, the cycling store would first create its target group, on the bases of their web traffic and purchases and previous online campaigns, and then create a new (or re-marketing) campaign.

If we use Facebook terminology, the so called ROAS would be expected to be much higher than it would be with regular/traditional form of advertising (billboards - if we could even measure that).

All well known channels such as Google Ads, Facebook - Meta Business Suite and Instagram, Twitter, Tik Tok, etc. has well developed platforms that are based on very sophisticated algorithms that allow advertisers to target potential customers more efficiently i.e. at a lower cost, which leads to higher ROI in a long run.

So I agree with Lake and that the benefits of target market identification are evident.

- More effective marketing mix
- Helps you choose the right marketing channels
- Uses limited time, money, and resources more efficiently
- Maximizes sales and profits (Lake, 2020)

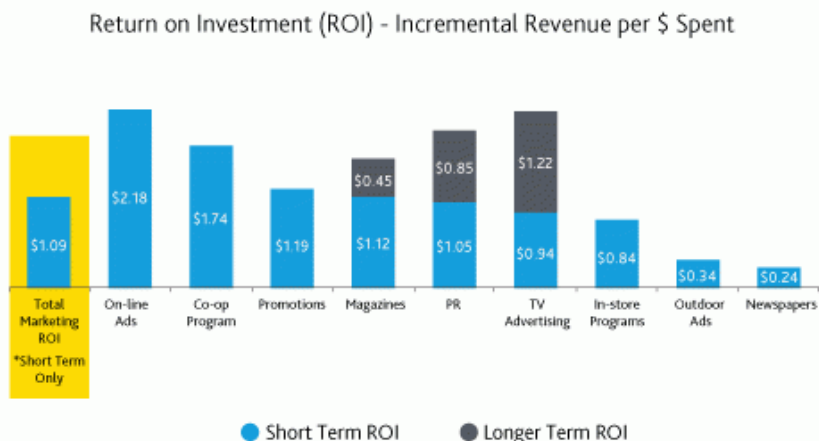
And the figures are there. Meaning that OM provides higher ROI because of the target group and that is why it is the fastest form of advertising.

Another study from Nielsen Company confirms my introductory assumptions. That study is comparing different marketing approaches and compares them on the basis of the achieved ROI.

For example:

The average for SEO services is £2.75 ROI means that for every £1 spent, the company generates £3.75 (for a profit of £2.75). In percentage terms, this would be a 275% return on investment. When looking at the chart above you can see that Email marketing, SEO, and direct mail all have a much higher ROI. (Nielsen and What marketing methods have the highest ROI?, 2021)

Global Marketing Return on Investment



*Global benchmark based on studies conducted by Nielsen

Source: The Nielsen Company

If we take a closer look at the upper graph, On-line ads has the higher short term ROI. Which can be only due to the facts described in previous chapters of this paper.

OM has the higher short term due to the facts of:

- target groups
- data that they provide and can be reused
- the reach of key market targets via OM has practically no limits due to the wide spread of internet. That means lower costs of ad delivery i.e. reachability of potential customers.

4. The reason why OM is the fastest growing form of marketing

In this last chapter of this paper we are going to show the main reasons of why OM is the fastest growing form of marketing. We are going to divide reasons into 3 facts:

- The expansion of Internet use
- Internet enables better collection and analysis of user data for advertising purposes (target marketing on another level)
- Target marketing on OM provides better (M)ROI than other forms of marketing

4. 1. The expansion of Internet use

The list of countries by number of Internet users, for 2020. Internet users are defined as persons who accessed the Internet in the last 12 months from any device, including mobile phones.

Worldwide Internet users

Users	2005	2010	2017	2019[9]
World population[10]	6.5 billion	6.9 billion	7.4 billion	7.75 billion
Worldwide	16%	30%	48%	53.6%
In developing world	8%	21%	41.3%	47%
In developed world	51%	67%	81%	86.6%

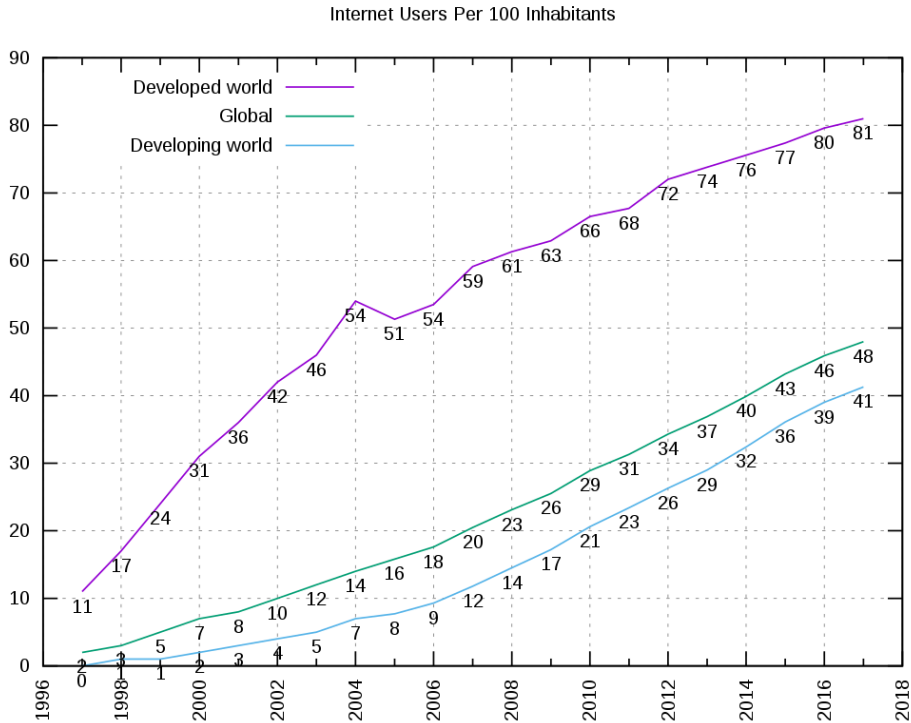
Source: Telecommunication Development Bureau , 2020

Percentage is the percentage of a country's population that are Internet users. Estimates are derived either from household surveys or from Internet subscription data.

Internet users by region

Region	2005	2010	2017	2019[12]
Africa	2%	10%	21.8%	28.2%
Americas	36%	49%	65.9%	77.2%
Arab States	8%	26%	43.7%	51.6%
Asia and Pacific	9%	23%	43.9%	48.4%
Commonwealth of Independent States	10%	34%	67.7%	72.2%
Europe	46%	67%	79.6%	82.5%

Telecommunication Development Bureau , 2020



Source: Telecommunication Development Bureau , 2015

All the statistics cited by Wikipedia and based on research cited in the references of this paper point to the exponential growth of internet use worldwide. Because the internet provides unlimited access to potential consumers, it also allows for a larger market, which until recently was inaccessible to smaller businesses.

So a micro-company that specializes in handmade unique souvenirs that could only be bought on a stand can nowadays sell worldwide without any additional production costs or relocation costs.

4. 2. Internet enables better collection and analysis of user data for advertising purposes (target marketing on another level)

As described in the third chapter of this paper Internet enables better collection of user data. We must take into account that a larger volume of data (based on the statistics given above) also means a better representative sample.

At the same time, it should be noted that the analysis of data obtained online is performed automatically and does not require additional human labor of collecting that data.

This data is provided in real time and represents both real-time monitoring of the success of online campaigns, as well as simultaneous analysis of users. All this enables real-time optimization of ongoing and subsequent campaigns. In fact, these are Orwell's worst nightmares, but from the point of view of a service or product provider it is a promised land.

All that data leads to the creation of target groups, that in the end effect, lead to better optimization of ads for a specific group of potential customers.

4. 3. Target marketing on OM provides better (M)ROI than other forms of marketing

It is precisely this data optimization, which we call the target groups, that makes it possible to increase the t.i. (M) ROI of all online advertising. Therefore, this paper devoted an entire 3.1 chapter to explaining what the target group is.

5. Conclusion

Due to the facts:

- The expansion of Internet use;
- Internet enables better collection and analysis of user data for advertising purposes (target marketing on an another level);
- Target marketing on OM provides better (M)ROI than other forms of marketing;

It is logical that companies use online advertising more often, as it represents greater simplicity and transparency of advertising and last but not least, cheaper and more effective advertising.

Although online advertising is supposed to represent only short term ROI, the article argues (with development of OM strategies) that it also significantly contributes to long term ROI.

With this realization in the field, companies are increasingly choosing to use OM as an essential form of advertising. This is all the more true for smaller companies due to the affordability of OM.

Because those businesses represent $\frac{3}{4}$ of all companies (like described in second chapter of this paper) this finally leads to the conclusion why OM is the fastest growing form of advertising.

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THE RELATIONSHIP BETWEEN CERTAIN AFRICAN CULTURAL PRACTICES ON INNOVATION POTENTIAL (A CASE STUDY OF SOUTHWEST NIGERIA CULTURAL PRACTICE)

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Abstract

Innovation is one of the key factors for growth and development in any society. However, there are many factors that can potentially impede innovation capacity. One of them is culture; this study has investigated how some African cultural practices can affect innovation potential. The author has taking into consideration such practices like prostrating, kneeling, bowing to show respect when greeting, and the perception that asking questions / been curious is impolite and disrespectful. Innovation can be triggered by curiosity and the desire to try new things; hence this research is an attempt to understand how intellectual curiosity and creativity can be stifled as a result of excessive adherence to certain cultural practices. The survey design used to collect primary data for the research featured 57 questions with total respondents of 502. Logistic regression was used to measure the predictive power and the degree to which the independent variables affected the target variable. 65% of respondents asserted that they grew up learning to be curious and had the cultural privilege to ask questions around older people. The study shows a positive relationship between growing up curious, asking questions around older people, and being potentially innovative while other cultural practices like showing respect by prostrating, kneeling, bowing, curiosity and not challenging traditional practices shows a negative relationship with innovation potential with the highest negative correlation value. However, this does not suggest that the continuous observance of these practices suppresses people's innovation potential because correlation does not imply causation. The findings in this study implies that for Africa and Nigeria to become more competitive with respect to innovation potential, it must embrace and prioritize an open

culture that eliminates subjugation in any form, one that values curiosity, out of the box thinking and creativity.

Key Words

innovation, cultural practice, development, creativity, society

INTRODUCTION

Africa's ethnic and cultural variety complicates discussions. Africa comprises of 54 countries, each with its distinct demographics and physical regions. Most countries have populations exceeding 200 million, while the smallest have only a few hundred thousand. Nigeria particularly has over 200 million. Africa has a great innovation Potential, additionally innovation is a necessity with the increase in Africa's population. (Hlela, 2019; Sumberg & Hunt, 2019). Africa is undergoing significant transformation in information, communication and technology that will impact hundreds of millions of people. Therefore, Innovation contributes to the development of African countries and the capacity to innovate can be affected by prevalent cultures (Hooli & Jauhiainen, 2018; Sanga, 2017; Sanyang et al., 2016; Sumberg & Hunt, 2019).

Culture is known as a "shared-meaning system in which members of the same culture tend to perceive and evaluate situational events and behaviors similarly." These systems incorporate cultural components. In order words, incorporating innovation or technology in cultural practices possibly decreases the cultural practices due to its advancement (Georghiou, 2015; Lachney, 2017; Malele et al., 2019; Manyuchi, 2018; Swanson, 2019). Numerous research has been conducted on innovation, ascertaining its significant and determinants. However, there are limited studies on the effect of Africa cultural practice on innovation potential and capacity. This research paper focuses on two variables: *Cultural Practices and Innovation Potential*. (Asaah et al., 2020; Christ et al., 2018; Nyssen Guillén & Deckert, 2021; Tomaselli, 2021). There are many triggers of innovation, however two of them stands out for the purpose of this study; Curiosity as one of the known traits of innovative people, inquisitiveness, and the drive to try new things or proffer solution. As a result, the objective of this study is to understand the effect and implications of the following:

- I) What is the relationship between growing up inquisitive, curious, asking questions around older people, and the potential to be innovative?
- II) What is the relationship between the cultural practices of not asking questions, not challenging traditional practices, greeting, or showing respect by prostrating, kneeling, or bowing down, and building innovation potential?
- III) What is the relationship between been encouraged to be innovative and innovation potential?

Research Methodology

The survey design used to collect the primary data for this research featured 57 questions with total respondents of 502. Among the 57 questions in the survey instrument, 56 had missing values. The study removed questions with missing values from 100 and above, owing to many missing values. This reduced the number of survey questions to 37. Every missing response was replaced with the most occurring response in every question to deal with the missing data. After careful examination of survey questions and their effect on the reliability and validity of the survey, only five questions were considered for further analysis. These five questions (one being the target variable and four being the independent variables) were chosen because they showcased several cultural practices common among Nigerians ethnic groups.

The study used Pearson Correlation to evaluate the relationships between the dependent and independent variables. Logistic regression was used to measure the predictive power and the degree to which the independent variables affect the target variable. In evaluating the integrity of the analysis, metrics such as accuracy, precision, recall and f1 scores were used.

The following questions were considered for this study:

Numbers	Questions
11	Did you grow up learning to be curious and asking questions around older people?
12	Is it perceived to be wrong to ask questions around older people or challenge traditional practice in your culture?
13	Do you greet, show respect to older people by prostrating, kneeling, or bowing in your culture?
14	Do you think there are elements of your culture that limits you from being creative & Innovative?
10	As a child, were you encouraged to be innovative? (Target question)

Table 1

ANALYSIS, RESULTS AND FINDINGS

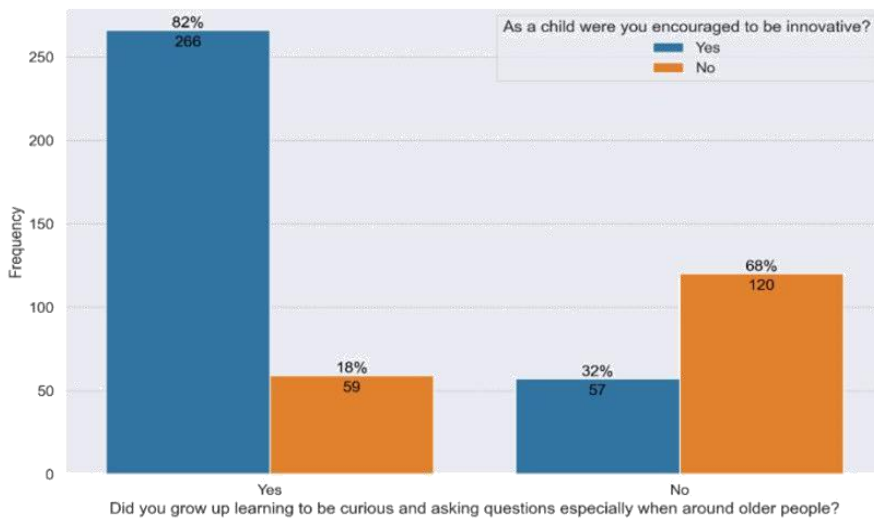


Fig 1

As shown in the plot in Fig 1 above, 65% (266 + 59) of the respondents asserted that they grew up learning to be curious and had the cultural privilege to ask questions around older people. In other words, their culture did not inhibit them from being inquisitive, particularly around their elders. The plot further shows that 82% of these respondents who could ask questions were encouraged to be innovative. Interestingly, 68% of those who could not ask questions were not encouraged to be innovative, which is a more significant percentage when compared to the 18% who were not encouraged to be innovative among the category of respondents who could ask questions while growing up.

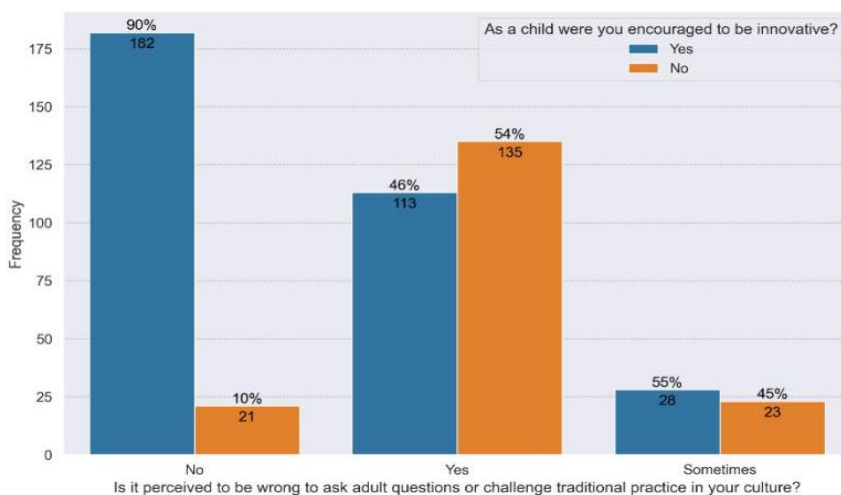


Fig 2

The interest categories here are those who answered No and Yes to the question "Is it perceived wrong to ask adult questions?". As shown in the plot Fig 2-, 90% of those who did not perceive it wrong to ask adult questions were encouraged to be innovative. Compared to the 46% who were only encouraged to be innovative among those whose culture perceived it wrong to ask adult questions, the plot clearly shows that those whose culture has nothing against children asking older people questions were more encouraged to be innovative as children.

For those who answered yes, it is almost difficult to say how this cultural practice affected their innovation potential because of the small margin between those who were encouraged to be innovative and those who were not. However, what makes the difference here is the margin between those who were not encouraged to be innovative in the two categories, i.e., those (54%) who were not encouraged to be innovative among those who answered "Yes" greatly surpassed those (10%) who answered No. This shows consistency with the result obtained from the question about learning to be curious while growing up and how it affects innovation potential.

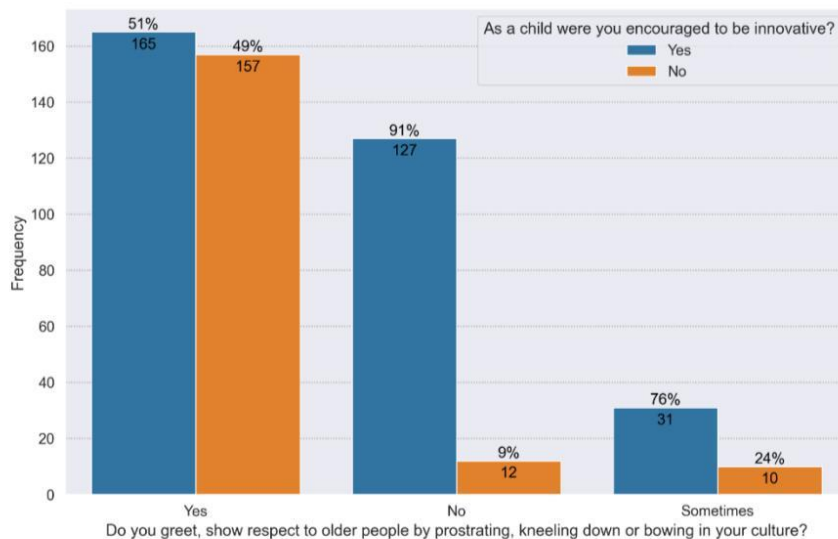


Fig 3

Here is another dimension of cultural practices and how they affect innovation potential. Also, the categories of interest here are those who answered Yes and No. Nigeria is an African country diverse in culture and ethnicity, where failure to observe certain practices like prostrating (for a male child) and kneeling (for a female child) is believed to be a lack of respect.

The plot in Fig 3 shows a minimal margin between those (51%) who were encouraged to be innovative and those (49%) who were not among the category of respondents who answered "Yes". Although, Nigeria is diverse in

culture, hence this research work has considered mostly the southwestern part of Nigeria. It's important to note that not all cultures in Nigeria observe prostrating and kneeling. However, there are similar forms of physical expressions of respects and greetings (like bowing the head or shaking hands with heads bowed) this also portrays. The notable difference in this case is in the respondents who do not observe the cultural practice of prostrating and kneeling which shows that 91% were encouraged to be innovative.

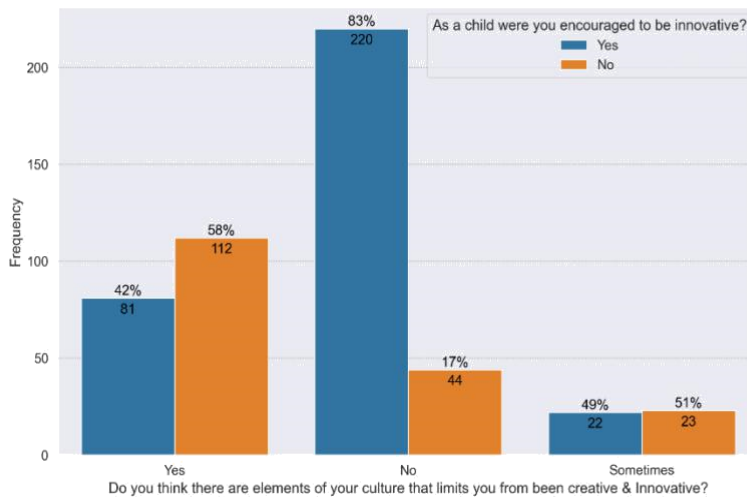


Fig 4

With a ratio of 5 to 1, the plot in Fig 4 clearly shows how those who asserted that no elements of their culture limit their innovation capacity. In other words, those whose culture does not limit their innovation capacity were mainly encouraged to be innovative while growing up. One could infer that the analysis in fig 4 is the summary of the first three (3) questions.

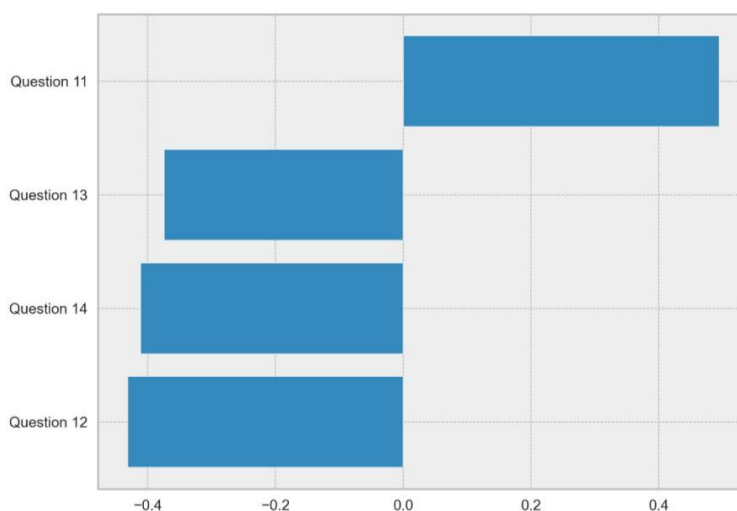


Fig 5

As shown in the plot in Fig 5, the features in the Pearson Correlation Were Questions 11, 12, 13, and 14. (independent variables questions) They were correlated with Question 10(target question) as considered earlier in the four (4) plots. (Fig 1, Fig 2, Fig 3 and Fig 4)

The plot in Fig 5 shows a positive relationship between growing up curious, asking questions around older people, and been encouraged to be innovative. This means that all things been equal, given proper circumstances, and if other factors do not come to play, people who grow up, unlimited by these cultural practices and are encouraged to be innovative would likely develop more innovation potential and are likely to innovate.

The plot in Fig 5 also shows a negative relationship between the cultural practices of not asking older people questions, not challenging traditional practices, greeting by prostrating, kneeling, or bowing down, and been encouraged to be innovative. This implies that, the more these practices are observed, the less likely people will develop and build innovation potential. It's important to note that these cultural practices, i.e., showing respect by prostrating, kneeling, bowing, not asking older people question and not challenging traditional practices are all considered together as elements of cultural practices that could limit peoples curiosity, inquisitiveness and the ability to want to try new things. However, this does not suggest that the continuous observance of these practices suppresses people's innovation potential. This is because correlation does not always imply causation.

Classification Report					Confusion Matrix		
	precision	recall	f1-score	support	Predicted: YES		Predicted: NO
0	0.740741	0.625000	0.677966	32.000000	Actual: YES		20
1	0.837838	0.898551	0.867133	69.000000	Actual: NO		12
accuracy	0.811881	0.811881	0.811881	0.811881			7
macro avg	0.789289	0.761775	0.772549	101.000000			62
weighted avg	0.807074	0.811881	0.807199	101.000000			

Fig 6

To test the predictive power of the features on the target, Logistic Regression was used to classify these two classes, i.e., those who were encouraged to be innovative while growing up and those who were not encouraged to be innovative while growing up. In evaluating the performance of classification models, metrics such as accuracy, precision, recall and f1 scores are used. While the accuracy score of the model shows 81%, it is not enough to conclude that the model performed well. After further investigation, using the precision score (the number of optimistic class predictions that belong to the positive class), recall score (how good the model was at predicting the positive class), and f1 score (a balance

between precision and recall), it was evident that the model performed well at predicting the positive class which is the class of interest. Therefore, the features can be relied upon as good target predictors.

Discussion

The effects of some Africa cultural practices on innovation capacity were examined in this study. The data were categorized using a process that considered both innovation potential and cultural practice characteristics. Numerous studies and scholars have opined that innovation can assist in growing and prospering economies (Asaah et al., 2020; Dowling & Grier, 2015; Gad David et al., 2021; Malele et al., 2019; Merolla, 2020; Sanga, 2017; Sumberg & Hunt, 2019). Additionally, it is critical for maintaining competitiveness and maximizing future potential. African cultural practice such as not being able to ask questions especially when around older people, not being able to challenge traditional practice, prostrating, kneeling, or bowing to show respect are referred to as elements of culture that potentially can impact creative & Innovation. (Fennell, 2017; Georgiou, 2015; Habiyaemye, 2020; Merolla, 2020; Nwosimiri, 2021; Tomaselli, 2021).

Geerts Hofstede is the scientist proponent of the most comprehensive studies on how much the attitudes, behaviors, policies and strategies in the business world are affected by social culture. The sub-dimension of social culture is based on his study. (Hofstede Insights, 2019). Hofstede's (1980) value dimensions offer a measure of one component of culture (cultural values) and are a means of gaining greater understanding of the role culture plays in national innovation success. Hofstede's Cultural measures of individualism, uncertainty avoidance, and power distance, for example, have been shown to be correlated to the number (per capita) of trademarks (Shane, 1993). Power distance is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. Nigeria especially scores 80 which is high on this dimension (Hofstede Insights, 2019) which means that people accept a hierarchical order in which everybody has a place, and which needs no further justification. Hierarchy in an organization is seen as reflecting inherent inequalities.

The result of this research suggests that African cultural practice such as not being able to ask questions especially when around older people, not being able to challenge traditional practice, prostrating, kneeling, or bowing to show respect are all characteristics embedded in power distance. This research contributes to academic knowledge by expanding innovation and African culture (Fennell, 2017; Forson, 2020). An examination of studies on culture and performance indicated a direct correlation between culture and innovation. (Rinne, Steel and Fairweather, 2011) found a strong negative relationship between Hofstede's dimensions of power distance and General Innovation Index (GII) scores as well as a strong positive relationship between individualism and GII innovation scores. No relationship was found

for Hofstede's measure of uncertainty avoidance. Similarly, Malele et al. (2019) assert that an internally closed culture may be detrimental than an outward-focused culture.

The findings in this study corroborate past studies indicating that formal structure, policies, and procedures inhibit innovation because innovation significantly depends on the spread of information. In cultures that exhibit high power distance, communication across functional or hierarchy boundaries is more difficult, making it impossible possible to connect different creative ideas and thoughts, which can then lead to lack of curiosity, creativity, and innovation. (K Williams & SJJ McGuire, 2005). Consequently, our study indicated that an open culture promotes innovation potential, but a hierarchical culture with high power distances discourages it.

Conclusion and Recommendation

Conclusively, this study has investigated how certain African cultural practices affect innovation potential. Based on empirical evidence, we can therefore conjure that there is a positive relationship between growing up curious, asking questions around older people, challenging tradition / cultural practices and developing innovation potential. The research has also shown a negative relationship between the cultural practices of not asking questions around older people, not challenging traditional practices, greeting by prostrating, kneeling, or bowing down, and building innovation potential. Summarily cultural factors appear to have a significant impact on Africa's innovation performance. The findings in this research are beneficial for economically emerging African countries. It has a direct effect on practitioners and policy makers. Potential Innovators should consider their culture and understand what can aid or impede innovation capacity. African leaders therefore should prioritize fostering cultures that values curiosity, creativity, and openness. As a result, future research should elucidate on the relationship between the types of innovation and African cultures.

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