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ASSESSING FASHION CONSUMERS' PROPENSITY IN ADOPTING PRODUCT-SERVICE SYSTEMS – A CROSS-CULTURAL PERSPECTIVE

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Abstract

Drawing from the literature to assess the propensity of Russian and Italian fashion consumers to use Product-Service Systems, the study develops a set of hypotheses to identify the drivers and the barriers to the adoption of Product-Service Systems and to determine which ones are the most relevant, respectively for Russian and Italian consumers. Finally, the study compares the level of interest in PSS for Russian and Italian consumers. The methodology implements a quantitative comparative analysis between Russian and Italian respondents, using an online survey leading to a final sample of 328 participants. From the findings it emerges very clearly that national culture plays a pivotal role in determining the propensity of fashion consumers to use Product-Service Systems. This has highly significant implications both for theory and practice. The widespread adoption of PSS would be highly beneficial for society at large. The paper is highly original since extant research has wholly neglected the pivotal role of national culture in shaping the propensity of fashion consumers toward PSS adoption.

Keywords: fashion consumers, product-service systems, national culture, cross-cultural analysis, drivers and barriers

1. INTRODUCTION

There is a growing awareness of the issues associated with the environment, climate change, and lack of resources. Material waste and resource inefficiency are closely associated with the concepts of sustainability and, in particular, the circular economy, which aims to decouple economic growth from natural resource depletion and environmental degradation through activities that reduce, reuse and recycle materials in production, distribution, and consumption processes (Hvass and Pedersen, 2019).

However, in 2019, the Circularity Gap Report showed that only 9% of the world economy was circular (PACE, 2019). In particular, the textile and clothing industry is considered one of the most polluting industries worldwide (EMF, 2017). Consequently, circular practices to reduce the fashion industry's environmental footprint are required and rather urgent. Several initiatives have been recently established to provide consumers with alternatives to purchasing new, inexpensive, low-quality clothing, such as rental services and styling consultancies (Armstrong et al., 2015). Thus, among the different solutions, Product-Service Systems (PSS) represent an effective practice to achieve product longevity in the fashion industry.

In this line, it is important to understand consumers' attitudes towards each type of PSS, to acknowledge those factors that increase the acceptance or rejection of PSS schemes. Therefore, this paper aims to delve more into the role of PSS in the fashion industry. In particular, this paper investigates the role of different national contexts (in terms of social, cultural, and economic dimensions) on the attitudes towards PSS, focusing on Russia and Italy.

2. SUSTAINABILITY, CIRCULAR ECONOMY, AND PRODUCT-SERVICE SYSTEMS

As a potential avenue to reduce the environmental impact, PSS has been associated with sustainability and circular economy concepts. While sustainability broadly refers to the balanced integration of economic, environmental and social performance, circular economy specifically considers strategies aimed at slowing, closing, and narrowing resource loops through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling (Geissdoerfer et al., 2017). According to the literature, PSS is regarded as one of the most effective means to moving society towards a resource-efficient, circular economy), by seeking to replace personal ownership and excess consumption of material goods with alternative utilization options (Tukker, 2015). PSS provides a mix of tangible products and intangible services designed to fulfill specific consumers' needs by providing more dematerialized services, which are also often associated with changes in the ownership structure (Mont, 2002; Tukker and Tischner, 2006). PSS introduces alternative scenarios or systems of product use such as sharing/renting/leasing schemes to consumers. It has the potential to decrease the total amount of products (i.e. material goods) and the total environmental burden of consumption (Mont, 2002).

2.1. PSS in the Fashion Industry: Motivations and Barriers to Consumers' Adoption

The Pulse of the Fashion Industry report (2017) estimated that the overall benefit to the world economy could be about EUR 160 billion in 2030 if the fashion industry were to address the environmental and societal fallout of the current status quo.

Although PSS have been implemented for quite a long time, the literature has devoted relatively limited attention to the topic only recently. Some studies have focused on the theoretical content of PSS in the fashion industry (Dissanayake & Weerasinghe, 2021), while others have focused on case studies (Holtström et al., 2019), on the practical application of some PSS (Stål and Jansson, 2017) or consumers' perspective (Armstrong et al., 2015). In particular, a comprehensive categorization of these services is still lacking. Literature has investigated the role of PSS in the fashion industry, but there is still no shared or acknowledged list of all the services that follow under the PSS label. A categorization, yet, is needed to study PSS thoroughly. After reviewing the existing literature, we identify twelve currently implemented PSS in the fashion industry. Renting is probably the most discussed PSS service. Then the services primarily addressed in the literature are repair service, take-back system, clothing swaps, redesign, do-it-yourself, consultancy, customized design, second-hand retail, fashion result, washing or break-in advice, and laundry.

Literature has also started to identify barriers and motivations for consumers' adoption of PSS: these are summarized in the table 1 below.

Table 1. Barriers and motivations for the adoption of PSS

Motivations	Environmental benefits	Fisher et al., 2008; Armstrong et al., 2015)
	Financial benefits	Hvass and Pedersen, 2019; Dissanayake and Weerasinghe, 2021
	Social factors	Armstrong et al., 2016; Camacho-Otero et al., 2020
	Emotional factors	Dissanayake, 2019; Lang et al., 2019
	Information provision	Hvass and Pedersen, 2019; Dissanayake and Weerasinghe, 2021
Barriers	Lack of information	Armstrong et al., 2015; Hvass and Pedersen, 2019; Dissanayake and Weerasinghe, 2021
	Lack of trust in the quality	Armstrong et al., 2015; Armstrong et al., 2016
	Time required to participate	Hvass and Pedersen, 2019; Iran et al., 2019
	Pleasure from buying products instead of using services	Armstrong et al., 2016
	Lack of property feeling	Armstrong et al., 2015; Armstrong et al., 2016
	Social pressure	Pereira et al., 2021
	Lack of interest and education in PSS	Hvass and Pedersen, 2019; Dissanayake and Weerasinghe, 2021

The literature review on consumers' motivations and barriers –referred only to some of the eight primary PSS (i.e., renting, repair service, take-back system, clothing swaps, redesign, do-it-yourself, consultancy, customized design) - shows some preliminary research direction. Yet, existing studies are just a few, not all empirical, and they tend to lead to mixed results. There is no established consensus over which barriers might hinder PSS use and which factors might provide an incentive for consumers to switch from traditional linear consumption to PSS. By drawing on this literature, the paper aims to assess the extent to which the motivations and barriers reviewed apply to each of the eight PSS.

2.2. PSS Adoption in Italy and Russia

Consumers' attitudes and behaviors are highly affected by socio-cultural and economic factors (Koszewska et al., 2020). However, PSS has been investigated using samples of consumers coming from two geographical contexts (i.e., USA and Finland) only in one study. Yet this study was limited to the specific cases of fashion renting, swapping and consultancy (Armstrong et al., 2016). Furthermore, no explicit cross-country comparisons had been performed on attitudes toward PSS.

Italy and Russia represent two main target markets for the fashion industry, having significantly high fashion expenditures. Both markets are also expected to increase further (Statista Apparel Report, 2021a, 2021b). Yet, the two countries are somewhat different in their socio-cultural and economic viewpoints. Socio-cultural differences between countries can be assessed through the concept of "individualism vs. collectivism", which indicates the extent to which individuals value individual interests and well-being or, differently, more groups and group norms (Hofstede et al., 2010).

According to *Hofstede Insights* (2017), Russia is characterized by a collectivist society with an "individualism score" equal to 39, while Italy is considered to have an individualist culture with a score almost twice as much of one for Russia. Therefore, the more collectivist culture in Russia may represent a barrier to the adoption of PSS as consumers' attitudes are based on the social system they belong to (Hofstede, 2010). Differently, in Italy, given the high level of individualism, and consequent self-actualization, consumers are likely to be less pressured to conform to societal norms in choosing what to wear.

From the sociocultural standpoint, the two countries differ also in their attitudes toward sustainability and responsible consumption. According to fashion industry experts, the trend toward responsible production and consumption cannot yet be called massive in Russia (Maguire, 2021). In Italy, environmental consciousness and sustainability are becoming a popular discussion topic (Mossuti, 2021).

Finally, depending on the country's economic structure, macroeconomic events can trigger different response in buying decisions in different countries. Most Russians face financial hardship as two-thirds of the fashion market is in the low-end segment (Sedih, 2019). Therefore,

we can assume that the population will seek financial benefits from using PSS, instead of buying new products (Sedih, 2019; Maguire, 2021). In Italy the post-pandemic, according to McKinsey, there are already signs of spending recovery as individuals have confirmed an increasing intention to treat themselves with apparel, shoes, and accessories (McKinsey 2021). Like all fashion companies, Italian companies are spotlighted for their negative environmental footprint (Mossuti, 2021; Smith, 2022). Therefore, they are increasingly embracing those practices aimed at tackling environmental issues, and educating consumers in this regard (Sheth et al., 2011).

Based on the cultural differences already discussed between Russia and Italy, we can advance that the two contexts face different levels of social pressure (Hofstede Insights, 2017; Germani et al., 2021). In particular, in Russia, even though individuals may be interested in the services, they might not recommend them due to the prevailing beliefs in society regarding adopting such services.

In summary, the extensive literature review leads us to hypothesize the followings:

H1a: Environmental benefits are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians
H1b: Financial benefits are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians
H1c: Social factors are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians
H1d: Emotional factors are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians
H1e: Information provision is a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians
H2a: Lack of information is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2b: Lack of trust in the quality is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2c: Time required to participate is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2d: Pleasure from buying products instead of using services is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2e: Lack of property feeling is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2f: Social pressure is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians
H2g: Lack of interest is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians

3. METHODS

A questionnaire composed of three sections was developed to investigate *consumers' propensity* toward PSS in Russia and Italy (Table 2).

The main goal of the survey was to target Russian and Italian women and men between 18 and 65 years old to provide a faithful representation of potential fashion consumers. Therefore, a combination of purposive sampling and a snowball sampling method was chosen to collect the data (Handcock & Gile, 2011).

Table 2. Content of the questionnaire

Section	Content
1	Verification of respondents' level of knowledge of the concept of PSS in general
2	• The respondents' level of interest for each PSSs (7-point Likert scale) • Intention to adopt each service (3-point semantic differential scale) • The willingness to recommend each service (11-point Likert scale) • Measurement of motivations and barriers (listing the relevant options reviewed in the literature)
3	• Demographic questions (age, gender, country, level of income, and level of education) • Psychographic questions on the general attitude towards sustainable fashion and intention to buy circular fashion items (7-point Likert scales)

The survey instrument used for administering the survey was Google Forms. The survey was self-administered online in January 2022.

4. EMPIRICAL RESULTS

A total of 328 females from Russia and Italy responded to the survey. Out of these, 54% of the females were residents of Russia (177) and 46% were residents of Italy (151). Overall, most of the respondents (72.8%) were between 18-29 years old. This generation composition in our sample is expected and reasonable as there is evidence that Gen Z (maybe also Millennials) is the most involved in circular economy-related topics (Colucci and Vecchi, 2021). Interestingly, 85.9% of the respondents from Russia were aged between 18-29 while 90.7% of the respondents from Italy aged between 18-35.

The results uncovered that most Russian females were familiar with fashion rental services; clothing repair services; take-back programs; styling consultancy; and customized design. However, they were unfamiliar with PSS services such as swaps; changes in garment design, and DIY kits. In contrast, most of the Italian females were not familiar with changes in garment design; and DIY kits only. Next, we sought to ascertain the actual usage and attitude towards engaging with PSS services in these two markets. Swaps and DIY kits were the only two services that a considerable proportion of Russian and Italian females wanted to avoid trying.

The only two PSS services that most or almost most Russian and Italian females had used were take-back programs, and clothing repair services. Interestingly, even though changes in garment design had not been used by the majority of Russian females in the past, there appeared to be a high interest in trying it out, with 70.6% of the sample indicating they would try it. In contrast, Italian females appeared keen to try out fashion rental services, changes in garment design, styling consultancy, and customized design with over 70% of respondents indicating they would try it.

Interestingly, an analysis of the frequency tables showed that 66.1% of Russian females were not keen on recommending swaps which was also the least used PSS service among Russian respondents, to friends, and 52.5% did not wish to recommend DIY kits to friends. In contrast, and interestingly, most Italian females were more willing to recommend a PSS to friends (including fashion rental service, which had the lowest use in that market).

Finally, we assessed the respondent's attitudes towards sustainable fashion and purchase intent associated with companies that embrace circularity. If we define interest as those indicating they are either somewhat interested, interested, or very interested on the scale, then 67.8% of Russian females were interested in a sustainable fashion. At the same time, 75.5% of Italian females were interested in sustainable fashion. Regarding purchase intent, if we define the likelihood of purchasing as either somewhat likely, likely, or very likely on the scale, then 71.2% of Russian females were likely to purchase from companies that embraced circularity while for Italian females, the likelihood of purchasing was 88.7%.

We begin by seeking to understand the drivers that would motivate and limit female consumers in Russia and Italy to engage with different PSS services. Overall, in general, the high mean responses recorded by Italian females indicate they are more likely to engage with PSS services than Russian females.

Table 3 below summarises the outcomes of the hypothesis testing.

Table 3. *Hypothesis testing summary*

Hypothesis	Outcome
H1a: <u>Environmental benefits</u> are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians	Supported
H1b: <u>Financial benefits</u> are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians	Supported
H1c: <u>Social factors</u> are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians	Partially Supported
H1d: <u>Emotional factors</u> are a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians	Partially Supported
H1e: <u>Information provision</u> is a significantly more important motivator driving the adoption of PSS among Italian consumers than Russians	Partially Supported
H2a: <u>Lack of information</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Not Supported
H2b: <u>Lack of trust in the quality</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Partially Supported
H2c: <u>Time required to participate</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Partially Supported
H2d: <u>Pleasure from buying products instead of using services</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Supported
H2e: <u>Lack of property feeling</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Supported
H2f: <u>Social pressure</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Partially Supported
H2g: <u>Lack of interest</u> is a significantly more important barrier hindering the adoption of PSS among Russian consumers than Italians	Partially Supported

5. CONCLUSION

The original contribution of the paper is twofold. First, from the findings, it emerges very clearly that national culture plays a pivotal role in determining the propensity of fashion consumers to use PSS.

From a theoretical standpoint, while extant research has completely neglected the importance of national culture, our study places national culture at the top of the research agenda about the propensity of fashion consumers to use PSS. More precisely, amongst the drivers environmental and financial benefits tend to play a more significant role when deciding to use PSS for the Italian fashion consumers than the Russians. As for the barriers, pleasure from buying products instead of using services is a significantly more critical barrier hindering the adoption of PSS among Russian consumers than Italians, and lack of property feeling is a significantly more critical barrier impeding the adoption of PSS among Russian consumers than Italians.

Conversely, from the practitioners' perspective, since these PSS aimed at introducing circularity in the fashion industry by thus significantly curbing overconsumption, their widespread adoption would benefit society.

References

Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. (2015). Sustainable product-service systems for clothing: Exploring consumer perceptions of consumption alternatives in Finland. *Journal of Cleaner Production*, *97*, 30-39. https://doi.org/10.1016/j.jclepro.2014.01.046

Armstrong, C. M., Niinimäki, K., Lang, C., & Kujala, S. (2016). A use-oriented clothing economy? Preliminary affirmation for sustainable clothing consumption alternatives. *Sustainable Development*, *24*(1), 18–31. https://doi.org/10.1002/sd.1602

Colucci, M., & Vecchi, A. (2021). Close the loop: Evidence on the implementation of the circular economy from the Italian fashion industry. *Business Strategy and the Environment*, 30(2), 856-873. https://doi.org/10.1002/bse.2658

Dissanayake, D. (2020), "Does mass customization enable sustainability in the fashion industry", in Beltramo, R., Romani, A. and Cantore, P. (Eds), *Fashion Industry: An Itinerary Between Feelings and Technology* (pp. 21-32). IntechOpen. https://doi.org/10.5772/intechopen.88281

Dissanayake, D. G. K., & Weerasinghe, D. (2021). Towards circular economy in fashion: Review of strategies, barriers and enablers. *Circular Economy and Sustainability, 2*, 25-45. https://doi.org/10.1007/s43615-021-00090-5

Ellen MacArthur Foundation. (2017). *A new textiles economy: Redesigning fashion's future*. https://ellenmacarthurfoundation.org/a-new-textiles-economy

Fisher, T., Cooper, T., Woodward, S., Hiller, A., & Goworek, H. (2008). *Public understanding of sustainable clothing: Report to the department for environment, food and rural affairs*.

Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The circular economy-A new sustainability paradigm?. *Journal of cleaner production, 143*, 757-768. https://doi.org/10.1016/j.jclepro.2016.12.048

Germani, A., Delvecchio, E., Li, J., Lis, A., Nartova-Bochaver, S. K., Vazsonyi, A. T., & Mazzeschi, C. (2021). The link between individualism–collectivism and life satisfaction among emerging adults from four countries. *Applied Psychology: Health and Well-Being, 13*(2), 437-453. https://doi.org/10.1111/aphw.12259

Handcock, M. S., & Gile, K. J. (2011). On the Concept of Snowball Sampling.

Hofstede Insights. (2017). *Country Comparison - Hofstede Insights*. Hofstede Insights. https://www.hofstede-insights.com/country-comparison/italy

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind : Intercultural Cooperation and Its Importance for Survival*. Mcgraw-Hill.

Holtström, J., Bjellerup, C., & Eriksson, J. (2019). Business model development for sustainable apparel consumption. *Journal of Strategy and Management, 12*(4), 481–504. https://doi.org/10.1108/jsma-01-2019-0015

Hvass, K., & Pedersen, E. R. G. (2019). Toward circular economy of fashion. Experiences from a brand's product take-back initiative. *Journal of Fashion Marketing and Management: An International Journal, 23*(3), 345–365. https://doi.org/10.1108/jfmm-04-2018-0059

Iran, S., Geiger, S. M., & Schrader, U. (2019). Collaborative fashion consumption – A cross-cultural study between Tehran and Berlin. *Journal of Cleaner Production*, *212*, 313–323. https://doi.org/10.1016/j.jclepro.2018.11.163

Koszewska, M., Rahman, O., & Dyczewski, B. (2020). Circular fashion – Consumers' attitudes in cross-national study: Poland and Canada. *Autex Research Journal, 20*(3), 327-337. https://doi.org/10.2478/aut-2020-0029

Lang, C., Seo, S., & Liu, C. (2019). Motivations and obstacles for fashion renting: A cross-cultural comparison. *Journal of Fashion Marketing and Management: An International Journal*, *23*(4), 519–536. https://doi.org/10.1108/jfmm-05-2019-0106

Maguire, L. (2021, March 3). *Will young Russians shop consciously? Vogue Business*. https://www.voguebusiness.com/sustainability/will-young-russians-shop-consciously

McKinsey. (2021). *The State of Fashion 2021*. https://www.mckinsey.com/~/media/McKinsey/Industries/Retail/Our%20Insights/State%20of%20fashion/2021/The-State-of-Fashion-2021-vF.pdf

Mont, O. (2002). Clarifying the concept of product–service system. *Journal of Cleaner Production*, *10*(3), 237-245. https://doi.org/10.1016/s0959-6526(01)00039-7

Mossuti, S. (2021, August 3). *I Consumatori Vogliono Più Sostenibilità Anche Quando Acquistano Online*. SMC Consulting. https://www.smcconsulting.it/i-consumatori-vogliono-piu-sostenibilita-anche-quando-acquistano-online/

Pereira, L., Carvalho, R., Dias, Á., Costa, R., & António, N. (2021). How does sustainability affect consumer choices in the fashion industry?. *Resources, 10*(4), 38. https://doi.org/10.3390/resources10040038

Pulse of the Fashion Industry report (2017). https://globalfashionagenda.org/product/pulse-of-the-fashion-industry-2017/

Sedih, I. A. (2019). *Fashion industry. 2019*. National Research University Higher School of Economics. https://dcenter.hse.ru/data/2019/06/03/1495959454/Индустрия%20моды-2019.pdf

Sheth, J. N., Sethia, N. K., & Srinivas, S. (2011). Mindful consumption: a customer-centric approach to sustainability. *Journal of the Academy of Marketing Science, 39*(1), 21-39. https://doi.org/10.1007/s11747-010-0216-3

Smith, P. (2022, January 12). *Sustainable fashion consumption in Italy - statistics & facts*. Statista. https://www.statista.com/topics/6155/sustainable-fashion-consumption-in-italy/#dossierKeyfigures

Stål, H. I., & Jansson, J. (2017). Sustainable consumption and value propositions: Exploring product-service system practices among Swedish fashion firms. *Sustainable Development*, *25*(6), 546-558. https://doi.org/10.1002/sd.1677

Statista Apparel Report 2021. (2021a). *Apparel - Italy | Statista Market Forecast*. Statista. https://www.statista.com/outlook/cmo/apparel/italy

Statista Apparel Report 2021. (2021b). *Apparel - Russia | Statista Market Forecast*. Statista. https://www.statista.com/outlook/cmo/apparel/russia

The platform for accelerating the circular economy (PACE). (2019). *The circularity gap report 2019*. https://www.circle-economy.com/resources/the-circularity-gap-report-2019

Tukker, A. (2015). Product services for a resource-efficient and circular economy–A review. *Journal of cleaner production*, 97, 76-91. https://doi.org/10.1016/j.jclepro.2013.11.049

Tukker, A., & Tischner, U. (2006). Product-services as a research field: past, present and future. Reflections from a decade of research. *Journal of Cleaner Production, 14*(17), 1552-1556. https://doi.org/10.1016/j.jclepro.2006.01.022

THE IMPACT OF BRAND COOLNESS ON BRAND SATISFACTION AND BRAND EQUITY: A PERSPECTIVE OF DOMESTIC TOURISTS VISITING BALI, INDONESIA

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Abstract

This study aims to examine the relationship between brand coolness, brand satisfaction, and brand equity within the context of Bali as a tourist destination. Questionnaires from 300 domestic tourists visiting Bali, Indonesia, were collected. Using path analysis, the data were evaluated. According to the findings of the study, brand coolness has an influence on brand satisfaction. Furthermore, brand coolness, directly and indirectly, influences brand equity through brand satisfaction. This study is expected to contribute to destination marketing literature and be used as a strategy to enhance the competitiveness of the city.

Keywords: brand coolness, brand equity, brand satisfaction, destination marketing, city branding

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1. INTRODUCTION

Brands are related to both products and services, as well as to tourism destinations (Hankinson, 2007). Tourism has ended the isolation of nations and towns, necessitating the deployment of substantial resources to distinguish destinations from rivals. Comparable to product branding, place names are an extrinsic signal that invokes emotions, increases awareness, and affects behavior (Gertner et al., 2007; Gómez et al., 2018).

When planning their next vacation in a globalized society, travellers have a multitude of alternative places from which to pick. This expansion creates new options for tourism destinations to attract tourists, but it also intensifies rivalry amongst destinations for tourists. Tourists appear to adore 'cool' places and yearn to visit them, presumably also because such visits look good on social media accounts. Therefore, being regarded as cool might be a destination's distinguishing feature (Kock, 2021). Customer satisfaction is essential for effective destination marketing since it impacts aspects such as choice, the number of repeat visits, loyalty, the number of products and services purchased, and word-of-mouth advertising (Kozak et al., 2005; Kozak and Rimmington, 2000). Therefore, understanding the degree of satisfaction experienced by tourists is crucial for evaluating the products and services provided at a place (Yoon and Uysal, 2005). Several publications in marketing have examined brand equity about city branding (Jacobsen, 2012; Kladou and Kehagias, 2014; Lucarelli, 2012; Zenker and Beckmann, 2013). Brand equity is a crucial concept in both the commercial and academic spheres since its application enables the attainment of competitive advantage through successful brands and promotes the creation of barriers to entry for rivals (Gómez et al., 2018).

The variety of tourist attractions in Bali is a combination of natural and cultural components (Antara and Sumarniasih, 2017). Domestic tourists comprised 62.7% of all visitors to Bali in 2019, accounting for the bulk of individuals who visited Bali. Afterwards, 37% belonged to tourists from other nations (Suwendra et al., 2020). Due to the increasing reputation of Bali as a tourist destination in Indonesia, Bali has become a popular and unique destination for Indonesian travellers (Antara and Sumarniasih, 2017). However, there are still several aspects of Bali tourism that a marketing and branding strategy may enhance. In this study, we analyze the link between brand coolness, brand satisfaction, and brand equity in the context of Bali in Indonesia.

2. LITERATURE REVIEW

2.1. Brand Coolness

Cool is still the most appropriate term to use when referring to something difficult to obtain, a quality that distinguishes behaviors and things as trendy, desirable, and emblematic of "being in the know" (Bird and Tapp, 2008). It is not an attribute of a person nor a characteristic of an item; instead, coolness is a perception tied to an impression that requires the confirmation of

others (Belk et al., 2010; Warren et al., 2019). Cool cities are ones that people think are genuine, rebellious, original, and energetic (Kock, 2021).

2.2. Brand Satisfaction

A measure of a tourist's overall impressions, as determined by contrasting what was initially intended to be experienced at a location with what was encountered at that destination, is what is meant by "tourist satisfaction" (Cole and Scott, 2004; Um et al., 2006). When a destination lives up to the standards set by its visitors, that location is said to have satisfied its guests (Rahman et al., 2020; Vinh et al., 2017; Wang et al., 2017).

2.3. Brand Equity

According to a study of the literature on city branding, brand equity is a reasonably well-studied issue from the standpoint of brand-related marketing, defined as a name or symbol that adds or subtracts value from a product, service, or organization (Gómez et al., 2018; Lei and Chu, 2015). Tourism research has identified and used four components in analysing destination brand equity: destination brand awareness; destination brand image; destination perceived quality; and destination brand loyalty (Boo et al., 2009; Pike and Bianchi, 2016; Tran et al., 2019).

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

The research hypotheses, along with the conceptual framework of the study, which illustrates the relationship between brand coolness, brand satisfaction, and brand equity, are presented in Figure 1.

Figure 1. A conceptual framework and Hypotheses of the Study
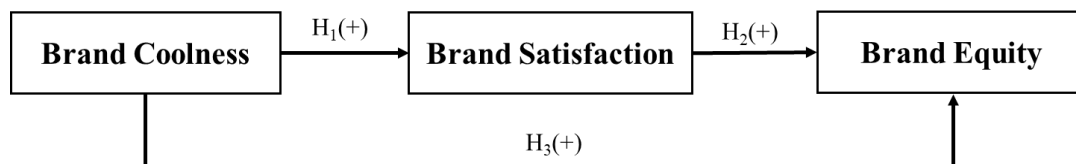
There are three research hypotheses, including H1: Brand coolness has a positive relationship with brand satisfaction. H2: Brand satisfaction has a positive relationship with brand equity. H3: Brand coolness has a positive relationship with brand equity.

4. METHODOLOGY

This quantitative study employed field-survey questionnaires to examine the association between brand coolness, brand satisfaction, and brand equity in Bali, Indonesia. The survey questionnaires, which contained a total of 43 questions, were used in the research. Furthermore, a 7-point Likert scale was used (1= "strongly disagree" and 7 = "strongly agree") in the questionnaire. This study gathered data from 300 people who participated in the survey. Questionnaires were collected at a variety of tourist attractions located across Bali during the

period of 15 October to 15 November 2022. The argument selection of a sample targeting appropriate audiences by the research objectives is adequate and reliable for a sample representative (Kline, 2016).

The questionnaire was segmented into four components, which are as follows: 1) general tourist information; 2) brand coolness; 3) brand satisfaction; and 4) brand equity. 12 items of general tourist information were included in the list. 12 questions on brand coolness were adapted from Kock (2021); 5 questions on brand satisfaction were adapted from Battour et al. (2022), Eid and El-Gohary (2015), and Wu et al. (2018); and 14 questions on brand equity were adapted from Tran et al. (2020). Path analysis was the primary method that was employed to analyze the data.

5. RESULTS AND DISCUSSION

Data were analyzed using descriptive and inferential statistics. In addition, path analysis was conducted to investigate the framework and hypotheses. The statistical software IBM SPSS v.28 and AMOS v.28 were employed for data analyses.

5.1. Preliminary Data Analysis

The collected data indicated that 56.3% of the population were female and 43.7% were male. 58.7% of the respondents were unmarried. Respondents between 18 and 29 were the majority, with 61%. In terms of educational level, 51.7% of them earned a bachelor's degree. Moreover, 35.3% were business employees, and 52.7% had a monthly income of less than Rp. 5.000.000. It was discovered that the most common kind of accommodation was hotels, with 54% and that most visitors came from western Indonesia, with 43.7% staying in Bali for two to three nights. 27.7% of the tourist respondents went to Bali with their organization's tour group, 26.3% with family, and 18.0% with friends. In addition, 41.3% of them visited Bali for the first time.

Table 1. Mean, SD, and Cronbach's Alpha

| Construct	No. of items	Mean	SD	Cronbach's Alpha
Brand Coolness (BC)	12	6.09	0.53	0.85
Brand Satisfaction (BS)	5	6.16	0.60	0.81
Brand Equity (BE)	14	6.05	0.55	0.88

Cronbach's Alpha values for the measurement ranged between 0.81 and 0.88, exceeding 0.70. Consequently, the measurements used in this study are within the acceptable level (Hair et al., 2019). The mean values of the questionnaire were between 6.05 and 6.16, and the standard

deviation ranged from 0.53 to 0.56 (Table 1). Data skewness values ranged from -0.89 to -0.46, while kurtosis values ranged from 0.39 to 1.68. All of the values for the items ranged between -2 and 2. Consequently, the data were normally distributed (Tabachnik and Fidell, 2019). The results of correlation matrix tests ranged from 0.636 to 0.69, the VIF ranged from 1.965 to 2.243, and the tolerance ranged from 0.44 to 0.51, revealing that there was no evidence of multicollinearity (Stevens, 2009).

5.2. Path Analysis Results

A path analysis was conducted to test the hypotheses on the relationship between brand coolness, brand satisfaction, and brand equity.

Figure 2: The result of path analysis on brand coolness, brand satisfaction, and brand equity
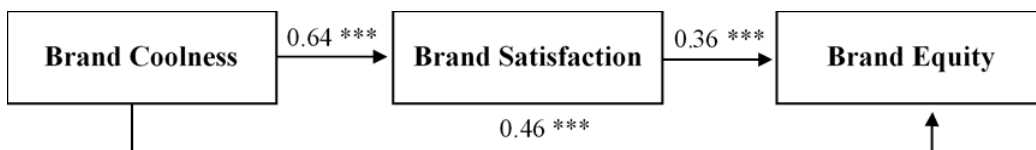
The findings of the path analysis demonstrated consistency with the empirical data when it came to the evaluation of the link between brand coolness, brand satisfaction, and brand equity. There is a positive relationship between brand coolness and both brand satisfaction and brand equity. Additionally, there is a positive relationship between brand coolness and brand equity (Figure 2).

Table 2. Summary of the findings of the study

No.	Hypothesis	β	t-value	Result
H1	Brand coolness has a positive relationship with brand satisfaction.	0.64	14.240 ***	Supported
H2	Brand satisfaction has a positive relationship with brand equity.	0.36	7.147 ***	Supported
H3	Brand coolness has a positive relationship with brand equity.	0.46	9.275 ***	Supported

R^2_{BS}=0.40, R^2_{BE} =0.55
*P < .05, **P < .01, ***P < .001

Table 2 demonstrates that hypotheses H1, H2, and H3 are supported. These are statistically significant (β = .64, P <.001, β = .36, P <.001 and β = .46, P <.001). All of the study's hypotheses were validated by the findings, accounting for 40% of the variance in brand satisfaction and 55% in brand equity.

Studies related to brand coolness in the context of city tourism are a new concept in the field of destination marketing. Kock (2021) recently identified the dimensions associated with city coolness. Therefore, we are interested in further studying brand coolness and its relationship with brand satisfaction and brand equity in terms of tourism marketing. The results of this study indicate that brand coolness has a positive association with brand satisfaction. Our findings are supported by a previous study conducted by Warren et al. (2019). Furthermore, brand coolness can affect brand equity directly and indirectly through brand satisfaction. Similar results were also reported by Khamwon and Kularbkaew (2021), Torres and Tribó (2011), and Tran et al. (2020).

6. CONCLUSION

This study revealed that brand coolness directly correlates positively with brand equity. Moreover, the indirect positive relationship between brand coolness and brand equity is mediated by brand satisfaction. The findings of this research contribute to the development of theory in the literature on city branding and destination marketing. Additionally, this study's outcomes may be used to strengthen the brand strategies of tourism destinations.

REFERENCES

Antara, M., & Sumarniasih, M. S. (2017). Role of tourism in economy of Bali and Indonesia. *Journal of Tourism and Hospitality Management*, *5*(2), 33-44.

Battour, M., Noviyani, N. A., Ratnasari, R. T., Aboelmaged, M., & Eid, R. (2022). The impact of HDA, experience quality, and satisfaction on behavioral intention: Empirical evidence from West Sumatra province, Indonesia. *Sustainability*, *14*(8), 1-19.

Belk, R. W., Tian, K., & Paavola, H. (2010). Consuming cool: Behind the unemotional mask. In R. W. Belk (Ed.), *Research in Consumer Behavior* (Vol. 12, pp. 183-208). Emerald Group Publishing Limited.

Bird, S., & Tapp, A. (2008). Social marketing and the meaning of cool. *Social Marketing Quarterly*, *14*(1), 18-29.

Boo, S., Busser, J., & Baloglu, S. (2009). A model of customer-based brand equity and its application to multiple destinations. *Tourism Management*, *30*(2), 219-231.

Cole, S. T., & Scott, D. (2004). Examining the mediating role of experience quality in a model of tourist experiences. *Journal of Travel & Tourism Marketing*, *16*(1), 79-90.

Eid, R., & El-Gohary, H. (2015). The role of Islamic religiosity on the relationship between perceived value and tourist satisfaction. *Tourism Management*, *46*, 477-488.

Gertner, R. K., Berger, K. A., & Gertner, D. (2007). Country-Dot-Com. *Journal of Travel & Tourism Marketing*, *21*(2–3), 105-116.

Gómez, M., Fernández, A. C., Molina, A., & Aranda, E. (2018). City branding in European capitals: An analysis from the visitor perspective. *Journal of Destination Marketing & Management*, *7*, 190-201.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Pearson Education.

Hankinson, G. (2007). The management of destination brands: Five guiding principles based on recent developments in corporate branding theory. *Journal of Brand Management*, *14*(3), 240-254.

Jacobsen, B. P. (2012). Place brand equity: A model for establishing the effectiveness of place brands. *Journal of Place Management and Development*, *5*(3), 253-271.

Khamwon, A., & Kularbkaew, U. (2021). Brand Coolness, Brand Engagement and Brand Equity of Luxury Brand. *Asian Journal of Research in Business and Management*, *3*(3), 1-7.

Kladou, S., & Kehagias, J. (2014). Assessing destination brand equity: An integrated approach. *Journal of Destination Marketing & Management*, *3*(1), 2-10.

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Kock, F. (2021). What makes a city cool? Understanding destination coolness and its implications for tourism. *Tourism Management*, *86*, 1-16.

Kozak, M., & Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. *Journal of Travel Research*, *38*(3), 260-269.

Kozak, M., Bigné, E., & Andreu, L. (2005). Satisfaction and destination loyalty. *Journal of Quality Assurance in Hospitality & Tourism*, *5*(1), 43-59.

Lei, S., & Chu, L. (2015). The Mediating Role of Consumer Satisfaction in the Relationship between Brand Equity and Brand Loyalty based on PLS-SEM Model. *International Business Research*, *8*(2), 62-70.

Lucarelli, A. (2012). Unraveling the complexity of "city brand equity": A three-dimensional framework. *Journal of Place Management and Development*, *5*(3), 231-252.

Pike, S., & Bianchi, C. (2016). Destination Brand Equity for Australia: Testing a Model of CBBE in Short-Haul and Long-Haul Markets. *Journal of Hospitality & Tourism Research*, *40*(1), 114-134.

Rahman, M., Moghavvemi, S., Thirumoorthi, T., & Rahman, M. K. (2020). The impact of tourists' perceptions on halal tourism destination: A structural model analysis. *Tourism Review*, *75*(3), 575-594.

Stevens, J. P. (2009). *Applied Multivariate Statistics for the Social Sciences* (5th ed.). Routledge.

Suwendra, I. W., Sujana, I. N., & Irwansyah, M. R. (2020). Acceleration strategy of Bali's tourism sector amid COVID-19 pandemic. *Proceedings of the 5th International Conference on Tourism, Economics, Accounting, Management and Social Science (TEAMS 2020),* Indonesia, 169-176.

Tabachnik, B. G., & Fidell, F. S. (2019). *Using Multivariate Statistics* (7th ed.). Pearson Education.

Torres, A., & Tribó, J. A. (2011). Customer satisfaction and brand equity. *Journal of Business Research*, *64*(10), 1089-1096.

Tran, P. K. T., Nguyen, V. K., & Tran, V. T. (2020). Brand equity and customer satisfaction: A comparative analysis of international and domestic tourists in Vietnam. *Journal of Product & Brand Management*, *30*(1), 180-194.

Tran, V. T., Nguyen, N. P., Tran, P. T. K., Tran, T. N., & Huynh, T. T. P. (2019). Brand equity in a tourism destination: A case study of domestic tourists in Hoi An city, Vietnam. *Tourism Review*, *74*(3), 704-720.

Um, S., Chon, K., & Ro, Y. (2006). Antecedents of revisit intention. *Annals of Tourism Research*, *33*(4), 1141-1158.

Vinh, T. T., Nga, V. T. Q., & Nguyen, N. P. (2017). The causal relationships between components of customer-based brand equity for a destination: Evidence from South Korean Tourists in Danang City, Vietnam. *Asian Economic and Financial Review*, *7*(4), 358-367.

Wang, T.-L., Tran, P. T. K., & Tran, V. T. (2017). Destination perceived quality, tourist satisfaction and word-of-mouth. *Tourism Review*, *72*(4), 392-410.

Warren, C., Batra, R., Loureiro, S. M. C., & Bagozzi, R. P. (2019). Brand Coolness. *Journal of Marketing*, *83*(5), 36-56.

Wu, H.-C., Cheng, C.-C., & Ai, C.-H. (2018). A study of experiential quality, experiential value, trust, corporate reputation, experiential satisfaction and behavioral intentions for cruise tourists: The case of Hong Kong. *Tourism Management*, *66*, 200-220.

Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, *26*(1), 45-56.

Zenker, S., & Beckmann, S. C. (2013). Measuring brand image effects of flagship projects for place brands: The case of Hamburg. *Journal of Brand Management*, *20*(8), 642-655.

THE RELATIONSHIP BETWEEN PUBLIC INVESTMENT AND EMPLOYMENT IN TURKEY: A TODA-YAMAMOTO APPROACH

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Abstract

Public spending has significant economic effects and is crucial for countries' economic activities. It is employed as an effective fiscal policy instrument, impacting both the supply and demand sides of the economy. High unemployment poses a major macroeconomic challenge, affecting developed and developing countries with negative socioeconomic consequences. To address this, governments prioritise economic activity that boosts employment and creates various programs. Public spending, particularly in capital expenditure and public investment, is critical in expanding national economic activity and employment. However, the relationship between public spending and employment is still debated. This study investigates the causal relationship between public investment and employment in Turkey from 1992 to 2021. The Toda-Yamamoto causality test shows that public investment and employment have a bidirectional causality, demonstrating a feedback relationship between the two variables.

Keywords: public investment, employment, Turkey, Toda-Yamamoto causality

1. INTRODUCTION

There has been discussion about the share of the public sector in the economy from the past to the present. Although some argue that the public sector's role in the economy should be limited, others claim that government intervention is necessary to combat challenges, including chronic stagnation, high unemployment rates, and unstable economic growth. However, it is also true that people's lives depend on the services supplied by the government (Onuoha and Agbede, 2019: 2). To meet their residents' needs in terms of economic and social life, developing countries frequently have to choose to meet these demands through public expenditures. Almost every country uses public spending as an effective fiscal policy tool to attain economic, social, and political goals. Yet, the degree of sensitivity to external shocks and government participation in local economies differs across countries and throughout time (Al-Faris et al., 2002: 1188).

Creating more jobs is one of a country's primary macroeconomic goals. Public spending is one of the government's most crucial fiscal policy tools to accomplish this goal. While increasing employment is the main goal of these policies, other goals include promoting economic growth and political stability. Keynes (1936) stated that government spending could promote growth by raising consumer spending and boosting employment, profits, and investment. At the same time, market regulation and effective resource allocation are considered ways for government involvement in the economy to lead to full employment. Keynes suggested that government spending should be done in a way that ensures the implementation of economic policies that encourage investment and income redistribution. (Kouassi, 2018).

There is a direct relationship between government spending and the rate of job creation in an economy. Therefore, government spending on economic and social infrastructure aims to indirectly create jobs in order to ensure economic growth and development. In this regard, state intervention is required to provide vital social and economic infrastructure facilities (roads, power supply, schools, rail, communications, hospitals, and so on) required for economic growth and development. Public spending also promotes infrastructure development by permitting investment in public projects and programmes, which develop productive sectors of the economy and create job possibilities. Last but not least, higher industrial production brought on by public investment in infrastructure development draws foreign direct investment and inevitably generates jobs for the labour force already in place (Ewubare and Maeba, 2018; Chinwendu, 2019: 2).

Policymakers and economists often have the opinion that raising public spending will have a beneficial effect on jobs. However, the outcome of an expansionary fiscal strategy in the form of an increase in public expenditure depends on a variety of factors, such as whether or not the nation is heavily indebted. In this context, a rise in public spending in countries with high debt burdens may have an adverse effect on employment (Feld, 2017). As a result, there may be cases where government spending does not result in the expected rise in employment. This

brings into question the effectiveness of fiscal policy. Blanchard (2003) contends that the impact of increased government expenditure is determined by how it is funded and the investment response. This suggests that if expenditures are financed through borrowing, interest rates may rise, resulting in a fall in private investment. Baxter and King (1993) distinguished between two forms of public expenditures and suggested that an increase in public investment has a significantly more significant economic impact than an increase in public purchases of goods and services (Abouelfarag and Qutb, 2021: 361).

Governments frequently use public spending as an effective policy instrument to enhance employment and economic growth. The study aims to determine whether public investment and employment in Turkey are causally related. From 1992 to 2021, the Toda-Yamamoto causality test is used to investigate the relationship between public investment and employment. The research is organised into five sections. First, the relationship between public spending and employment is discussed in the introduction. In the second section, the relevant studies from previous research are examined. The third and fourth sections include the data set, econometric method, and econometric results. Conclusions take place in the final section.

2. LITERATURE REVIEW

Academics keep arguing about the effect of public spending on employment. However, the results of research on this subject are still contradictory. Therefore, previous studies regarding the issue were reviewed in this part of the research. Table 1 gives a summary of the studies on the subject.

Tablo 1. Literature Review

Author	Country/Period	Method	Results
Yildirim and Sezgin (2003)	Turkey/1950-1997	ARDL	Military investment reduces employment
Onur (2004)	Turkey/1980-2002	OLS, Granger causality	Public fixed capital investments have an adverse effect on employment. Furthermore, there is unidirectional causality from government fixed capital investments to employment.
Göze Kaya et al. (2015)	Turkey/1990-2013	Regression, Granger causality	There is no relationship between employment and public investment
Kanca and Bayraktar (2015)	Turkey/1980-2013	Granger causality, OLS	There is no relationship between public investment and unemployment.
Sancar et al. (2016)	Turkey/2008-2013	Random effects	Public investment reduce unemployment in the TR8 region.
Topal (2017)	Turkey/2004-2016	ECM, ARDL-PMG	Public investment enhances employment in the long run.
Charles et al. (2018)	Nigeria/1980-2016	Johansen cointegration, Dynamic OLS	Investments in public education reduce unemployment, whereas investments in public health and other fields do not.
Anowor et al., (2019)	Nigeria/1980-2017	ECM	Public investment decreases unemployment
Bektaş (2020)	Turkey/1990-2017	Granger causality	There is unidirectional causality from the unemployment rate to public investment

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Petrovic et al. (2021)	10 CEE countries/1999:Q1-2015:Q4	Panel data analysis	Public investment expansion has a significant beneficial effect on employment.

Note: ECM; Error correction model, ARDL; Autoregressive distributed lag, OLS; Ordinary least squares.

When the research in the literature is examined, it is determined that there are a few studies that investigate the relationship between public investment and employment. The findings of this research differ as well. This study adds to the existing literature by examining the relationship between public investment and employment in Turkey.

3. DATA AND ECONOMETRIC METHOD

The relationship between public investments (PI) and employment (EMP) in Turkey is investigated in the present research employing the Toda-Yamamoto (1995) causality test using annual data from 1992 to 2021. The share of public investment (% GDP) represents public investment, and the percentage of the employed population over the age of 15 represents employment. The public investment and employment variables were derived from the databases of the Strategy and Budget Directorate of the Presidency of the Republic of Turkey and the Turkish Statistical Institute, respectively.

The Granger causality test based on the Vector Autoregressive (VAR) system can be used with stationary variables. As a result, taking the difference of non-stationary variables at the level causes information loss. Such criteria are not necessary for the Toda-Yamamoto (1995) causality test. The results are reliable because there is no information lost when the variables are not taken into account. Another advantage of this test is that the cointegration relationship is not tested.

In the Toda-Yamamoto (1995) test based on the VAR system, the lag length (k) of the VAR model constructed using the level values of the variables is first established. Then, the maximum degree of integration (dmax), the highest level of stationarity of the variables, is determined and added to the lag length (k+dmax) and the model is solved. The Toda and Yamamoto (1995) test model, shown in Equations (1) and (2), was used to establish the causal link between PI and EMP.

$$EMP_t = \emptyset_0 + \sum_{i=1}^{k} \gamma_{1i} EMP + \sum_{i=k+1}^{k+d_{max}} \gamma_{2i} EMP_{t-i} + \sum_{i=1}^{k} \beta_{1i} PI_{t-i} + \sum_{i=k+1}^{k+d_{max}} \beta_{2i} PI_{t-i} + \varepsilon_{1t} \quad (1)$$

$$PI_t = \tau_0 + \sum_{i=1}^{k} \sigma_{1i} PI + \sum_{i=k+1}^{k+d_{max}} \sigma_{2i} PI_{t-i} + \sum_{i=1}^{k} \delta_{1i} EMP_{t-i} + \sum_{i=k+1}^{k+d_{max}} \delta_{2i} EMP_{t-i} + \varepsilon_{2t} \quad (2)$$

The MWALD test statistic examines the causal relationship between PI and EMP in equations (1) and (2). In equation (1), the null hypothesis H_0, $\beta_{1i}=0$, i=1,...,k, and $\delta_{1i}=0$, i=1,...,k, test whether there is a causality relationship from PI to EMP. Similarly, for Equation (2), the null hypothesis H_0 for the causality from EMP to PI is $\alpha_{1i}=0$, i=1,…,k and H_0: $\pi_{1i}=0$, i=1,…,k. The

k lags of the model are tested according to the MWALD test with X^2 distribution to determine the existence of a causal relationship. As a result, when the MWALD test is used to establish if the coefficients of the k lags are equal to zero as a group, if they are not equal to zero, the null hypotheses are rejected, and it is concluded that there is a causation relationship between the relevant variables.

4. RESULTS

This section presents the test findings for the presence of a causal relationship between PI and EMP.

4.1. Unit root test results

The Augmented Dickey-Fuller (ADF) test is used to run unit root tests on the PI and EMP variables, and the results are shown in Table 2.

Tablo 2. ADF Unit Root Test Results

Variables	ADF Test Statistics	
	Constant	**Constant-Trend**
EMP	-2.033 (0)	-1.625 (0)
PI	-2.913c (0)	-3.152 (0)
ΔEMP	-5.560a (0)	-5.492a (0)
ΔPI	-5.193a (0)	-5.209a (0)

Note: The values in parentheses indicate the optimal lag length chosen according to the SC (Schwarz Information Criterion). a and c denote the significance level at 1% and 10%, respectively. Δ denotes the first difference of the variables.

As demonstrated in Table 2, the EMP variable is stationary in the model with a constant and trend in the first difference. In contrast, the PI variable is stationary in the model with a constant and trend in the first difference at its level value. As a result, in the VAR system, dmax = 1.

4.2. Toda-Yamamoto (1995) causality test results

The lag length of the VAR model is first established in the Toda-Yamamoto (2015) test, and the results are shown in Table 3.

Tablo 3. Determination of Appropriate Lag Length with VAR Model

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-95.85392	NA	4.819894	7.248438	7.344426	7.276981
1	-69.12945	47.51016*	0.896940	5.565145	5.853109*	5.650771*
2	-64.90716	6.880782	0.888314*	5.548678*	6.028618	5.691389
3	-63.51804	2.057954	1.094768	5.742077	6.413992	5.941873

According to the LR (Sequential Modified LR Test Statistic), SC, HQ (Hannan-Quinn Information Criterion), and diagnostic test findings, the lag length of the VAR system is established as 1. The VAR system is calculated with a lag length of 1, and the LM test is used to identify the autocorrelation issue. The findings are shown in Table 3.

Tablo 4. Autocorrelation LM Test Results

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	3.879014	4	0.4226	0.989387	(4, 46.0)	0.4228
2	2.693573	4	0.6103	0.678317	(4, 46.0)	0.6105
3	3.647535	4	0.4558	0.928027	(4, 46.0)	0.4560
4	4.684397	4	0.3212	1.205247	(4, 46.0)	0.3215

There is no autocorrelation problem, according to the results in Table 4. Figure 1 shows the inverse roots of the AR characteristic polynomial of the VAR (1) system.

Figure 1. Inverse Roots of AR Characteristic Polynomial

Inverse Roots of AR Characteristic Polynomial
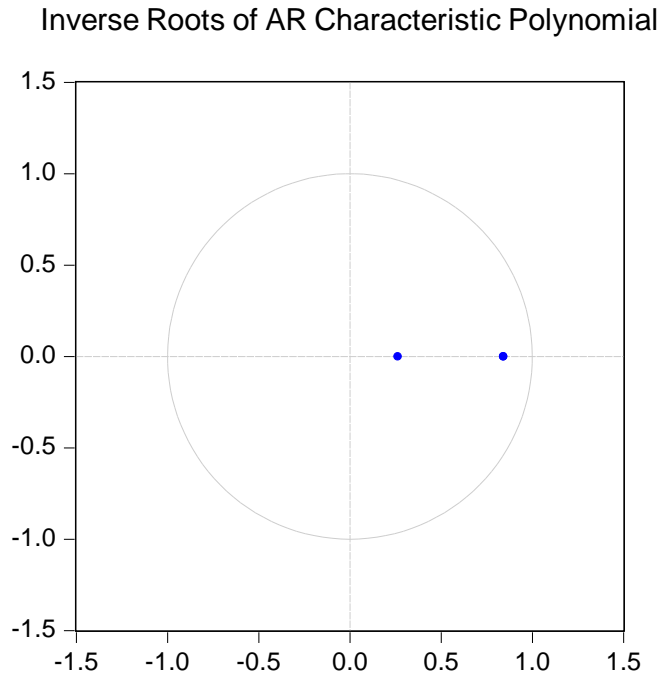
The inverse roots of the VAR (1) system are determined to be within the unit circle. Thus the system achieves the stability criteria.

Table 5 presents the Toda and Yamamoto (2015) causality test results.

Tablo 5. Toda and Yamamoto (2015) Causality Test Results

Direction of Causality	X² Test Statistics	Probability Value	Result

$H_0 = \beta_{11} = 0$ There is no causality from PI to EMP.	0.093	0.0932	PI ⟶ EMP
$H_0 = \delta_{11} = 0$ There is no causality from EMP to PI.	12.478	0.0020	EMP ⟶ PI

Table 5 shows that the null hypothesis H_0, stating that there is no causality from PI to EMP, is statistically rejected at the 10% significance level, and a causal relationship between PI and EMP is proved. Similarly, at the 1% significance level, the null hypothesis H_0, which claims no causality from EMP to PI, is statistically rejected, and a causal relationship between EMP and PI is determined. As a result, the evidence of a bidirectional causal relationship between PI and EMP is determined.

5. CONCLUSIONS AND RECOMMENDATIONS

Governments frequently employ fiscal policy as a key tool to boost the economy and create jobs. In order to accomplish their economic, social, and political goals, governments frequently prefer to use public expenditures, one of the most significant fiscal policy tools. Public expenditures, in particular, are employed as a powerful financial tool to stimulate economic activity and ensure rapid economic growth rates. Unemployment causes adverse socioeconomic difficulties in many countries. Reducing unemployment, a macroeconomic challenge suffered at various levels in both developed and developing countries is one of these countries' primary macroeconomic objectives. Governments commonly use public spending to increase employment, which is an essential measure of the success of economic policy and one of their key goals. Also, there is a widespread belief that increasing government spending will increase employment. However, despite an increase in government spending on the economy, there have been instances where employment has decreased. Fiscal policies significantly impact public investment more than other public expenditures. Determining if public investments, which are one of the crucial elements of public spending and have a beneficial effect on output, generate employment in Turkey is the main objective of this study. This research aims to investigate the causal relationship between public investment and employment in the Turkish economy.

This study uses the Toda-Yamamoto causality test to investigate the relationship between public investment and employment from 1992 to 2021. The estimation of the Toda-Yamamoto causality test reveals that there is bidirectional causality between public investment and employment According to the empirical results, there is a feedback relationship between public investment and employment. In order to achieve the anticipated growth in employment, the state may successfully implement interventionist policies by boosting public investment and actively participating in this process. In addition, developing and using policies to focus public

funds on sectors with high production potential may have an employment-boosting effect. Additionally, initiatives to create more job possibilities will encourage the creation of new business ventures in the public sector.

REFERENCES

Abouelfarag, H. A., & Qutb, R. (2021). Does government expenditure reduce unemployment in Egypt?. *Journal of Economic and Administrative Sciences*, *37*(3), 355-374.

Al-Faris, A. F. (2002). Public expenditure and economic growth in the Gulf Cooperation Council countries. *Applied economics*, *34*(9), 1187-1193.

Anowor, O. F., Uwakwe, Q. C., & Chikwendu, N. F. (2019). How investment does affect unemployment in a developing economy. *Sumerianz Journal of Economics and Finance*, *2*(7), 82-88.

Baxter, M., & King, R. G. (1993). Fiscal policy in general equilibrium. *The American Economic Review*, *83(3)*, 315-334.

Bektaş, A. (2020). Türkiye'de kamu yatırım harcamaları ile işsizlik arasindaki nedensellik ilişkisi. *Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi*, *21*(1), 1-29.

Blanchard, O. (2003). *Macroeconomics (3rd ed.).* Prentice Hall, Boston: Pearson

Charles, D., Nenbee, S. G., & Krama, I. J. (2018). Public investment in the social sector and employment generation in Nigeria, 1980-2016. *Greener Journal of Social Sciences*, *8*(1), 1-11.

Chinwendu, N. (2019). Does Government Expenditure Stimulate Employment Generation? A Disaggregated Empirical Evidence from the Nigerian Economy Does Government Expenditure Stimulate Employment Generation? A Disaggregated Empirical Evidence from the Nigerian Economy. *Journal of Economics and Sustainable Development*, *10(16)*, 1-11.

Ewubare, D. B., & Maeba, S. L. (2018). Effect of public expenditure in construction and transportation sectors on employment in Nigeria. *International Journal of Science and Management Studies*, *1*(4), 130-136.

Feld, L. P. (2017). Public spending reduces unemployment. In *Economic Ideas You Should Forget* (pp. 45-46). Cham: Springer International Publishing.

Göze Kaya, D., Kaygisiz, A. D., & Altuntepe, N. (2015). Türkiye'de kamu harcamalarının toplam istihdama etkisi üzerine bir değerlendirme. *Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *17*(1), 83-96.

Kanca, O., & Bayrak, M. (2015). Kamu harcamaları bileşenleri ile işsizlik arasındaki ilişki (Türkiye örneği). *Gazi İktisat ve İşletme Dergisi*, *1*(2), 55-74.

Keynes, J. M. (1936). *The General Theory of Employment Interest and Money*. London and Newyork, Macmillan

Kouassi, K. B. (2018). Public Spending and Economic Growth in Developing Countries: A Synthesis. *Financial Markets, Institutions and Risks, 2*(2), 22-30.

Onuoha, F. C., & Agbede, M. O. (2019). Impact of disagregated public expenditure on unemployment rate of selected African countries: A panel dynamic analysis. *Journal of Economics, Management and Trade*, *24*(5), 1-14.

Onur, S. (2004). İşsizlik sorunu ve kamu sabit sermaye yatırımlarının istihdam üzerindeki etkisi. *Kahramanmaraş Sütçü İmam Üniversitesi Sosyal Bilimler Dergisi*, *1*(1) 1-16.

Petrović, P., Arsić, M., & Nojković, A. (2021). Increasing public investment can be an effective policy in bad times: Evidence from emerging EU economies. *Economic modelling*, *94*, 580-597.

Sancar, C., Sancar, C., & Atay Polat, M. (2016). kamu yatirim harcamalari istihdam düzeyini etkiler mi?(TR 8 ve TR 9 Düzey 1 bölgeleri için bir uygulama). *Journal of International Social Research*, *9*(43), 2122-2133.

Toda, H. Y., & Yamamoto, T. (1995). Statistical inference in vector autoregressions with possibly integrated processes. *Journal of econometrics*, *66*(1-2), 225-250.

Topal, M. H. (2017). Türkiye'de kamu yatırımlarının istihdam üzerindeki etkisi: Bölgesel bir analiz (2004-2016). *Global Journal of Economics and Business Studies*, *6*(12), 186-204.

Yildirim, J., & Sezgin, S. (2003). Military expenditure and employment in Turkey. *Defence and Peace Economics*, *14*(2), 129-139.

CAN BENFORD'S LAW REFLECT MAJOR ECONOMIC CHANGES?

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Abstract

This paper examines a range of additional economic indicators in which Benford's law might apply. Specifically, it concerns the indicator of sales in the Czech Republic, monitored in three different sectors (manufacturing, trade, and hospitality, i.e., accommodation and catering). At the same time, the analysis has also been performed on the data mix created by aggregating data from these sectors. This paper also examines whether the validity of Benford's law in these sectors could have been affected by the COVID-19 pandemic or what the changes in the validity of Benford's law have been from the time before the pandemic (2019), during the pandemic (2020), and then after the partial relaxation of the strict restrictive measures (2021). It turns out that the validity of the law is only partial and varies across both sectors and years. On the other hand, it must also be acknowledged that, visually, the shape of the logarithmic curve governing the occurrence frequencies of the first and second digits from the left generally confirms the corresponding frequency distribution values, even if the goodness-of-fit tests do not prove the full validity of the law.

Keywords: Benford's law, goodness-of-fit test, revenues, COVID-19 pandemic

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1. INTRODUCTION

We have currently been dealing with big data sets on an increasing scale. In data analysis, we often ask ourselves whether or not a given data set follows specific rules, i.e., a particular probability distribution from a statistical point of view. This approach naturally raises another question about the type and shape of the underlying distribution. Are they always the same or different in each situation? Is it possible to find a rule (law of distribution) that can be used to verify our data's plausibility or unbiased character? Will such a rule vary over time and space, or will it be valid without restrictions? To a certain extent, these and similar questions can be answered in the case of Benford's law of distribution.

Benford's law says that probabilities of digits 1, 2, ..., 9 occurring as the first digit from the left in a given data set are not identical. Numbers starting with one have a higher frequency than those beginning with two, which have a higher frequency than those starting with three, and so on; finally, the least frequent are numbers starting with nine. The probabilities of the second, third, and fourth digits from the left are also different.[i] However, the differences between the occurrence probability values for a given digit gradually decrease until, in the case of the fifth digit from the left, the occurrence probability values for the digits 0, 1, ..., 9 are identical.[ii] The validity of Benford's law has been verified empirically (first in 1881 and again in 1938). New mathematical approaches to this empirical distribution applied at the end of the 20th century led to its incorporation into probability theory. The validity of the Benford distribution has not yet been mathematically proven. Still, its practical validation and use (in accounting, statistics, and natural sciences) demonstrate its validity to a certain degree.

In the context of the significant economic changes that have occurred due to the COVID-19 global pandemic, the question arises whether the rules of Benford's Law are maintained in the event of different economic conditions or after a fundamental change in economic conditions. Therefore, a comparison is proposed between the structures of the data set (by the first or second digit from the left) under conditions of a normally functioning economy on the one hand and under conditions of economic activity reduced due to the pandemic on the other hand. For such an analysis, it is proposed to compare the structure of business sales in selected sectors in 2019 (the year before the pandemic) concerning the values valid in 2020 and 2021 (the years of the pandemic).

2. THEORETICAL BACKGROUND AND APPLICABILITY SCOPE OF BENFORD'S LAW

The first to formulate the law (later called Benford's) was the American mathematician and astronomer Simon Newcomb (cf. Newcomb, 1881). S. Newcomb noticed in libraries that the first pages of logarithmic tables were much more worn than the remaining ones. From this observation, he concluded that students were much more likely to look for logarithms of numbers beginning with one than those beginning with higher digits. He then concluded that

the probability of finding a number beginning with one is the highest; that is, higher than the probability of finding a number beginning with two, etc., and empirically derived[iii] that the following Formula gives the probability of finding a number beginning with the leftmost digit d:

$$P(d) = \log_{10}\left(1 + \frac{1}{d}\right), \qquad \text{for } d = 1, 2, \ldots, 9. \tag{1}$$

This rule means that the probability of a number starting with one is 0.3010, that of a number starting with two is 0.1761, and so on; finally, the probability of a number starting with nine is 0.0458. He also derived the occurrence probabilities for the second digit from the left (where it is necessary also to consider zero). The differences between the occurrence probabilities for the digits 0, 1, ..., 9 at the second position from the left are significantly lower than for the first digit from the left (the probability of occurrence for the digit 0 is 0.1197, and for the digit 9 it is 0.0850).

While Formula (1) governs the occurrence probability values for the digits 1, 2, ..., 9 at the first position from the left, such values for the digits 0, 1, ..., 9 at the second position from the left (assuming its independence from the occurrence of a certain first digit from the left)[iv] is given as

$$P(d) = \sum_{k=1}^{9} \log_{10}\left(1 + \frac{1}{10k + d}\right), \text{for } d = 0, 1, \ldots, 9. \tag{2}$$

Considering the independent occurrences of the digits 0, 1, ..., 9 at the third and subsequent positions, the governing Formula can be generalized to

$$P(d_k) = \sum_{d_1=1}^{9} \sum_{d_2=0}^{9} \cdots \sum_{d_{k-1}=0}^{9} \log_{10}\left(1 + \frac{1}{\sum_{i=1}^{k} d_i \cdot 10^{k-i}}\right), \qquad \text{for } d_k == 0, 1, \ldots, 9. \tag{3}$$

Let us observe that the differences between the occurrence probability values for a given digit become significantly smaller at the second position from the left, and at the fifth position from the left (independent of the previous digits), the Benford distribution converges to a uniform multinomial distribution – see Hindls and Hronova (2015) for details.

Since, starting at the third valid digit from the left, the differences in probability values between digits become minimal, the practical use of the Benford distribution is restricted to verifying the independent occurrence of any digit at the first, or possibly the second position from the left.

The fact that we have at our disposal the Benford probability distribution of the first (or second) digit from the left[v] provides the possibility of checking any data set for compliance with the

data structure given by this law. A χ^2 goodness-of-fit test is commonly used to check the agreement between the empirical and theoretical distributions. The hypothesis being tested assumes that the empirical distribution matches the theoretical Benford distribution; the alternative hypothesis denies this. The test criterion is given by the statistics

$$G = n\sum_{d=1}^{9}\frac{(p_d - \pi_d)^2}{\pi_d},$$ (4)

whose distribution is approximately $\chi^2[8]$ under the hypothesis H_0;

here π_d – theoretical frequency under the Benford distribution;

p_d – empirical frequency; and

n – sample size.

The critical values are those of the respective quantiles $\chi^2[8]$; most often (at the 5% significance level) we use the 95% quantile of $\chi^2_{0.95}[8] = 15.5$. In the case of digit-matching testing at the second site, we would proceed by analogy, but the number of the groups equals ten, and the number of degrees of freedom equals nine.[vi]

Newcomb's paper did not attract much attention in its time. It was not until the 1930s that the American physicist Frank Benford noticed (as Newcomb had done before) the unequal wear on the different pages of logarithmic tables and arrived at the same Formulas for the first (see (1)) and second (see (2)) digits from the left. He examined many data sets from different fields (hydrology, chemistry, but also baseball and daily newspapers) and empirically verified the validity of the formulas derived by Newcomb – see Benford (1938).

In general, data sets have been identified (from various fields of natural science, economics, and everyday life) for which Benford's law holds, but at the same time it has always been possible to find data sets indicating the contrary.[vii] However, efforts to mathematically prove the validity of Benford's law appeared as late as the late 20th century. This effort was mainly the focus of T. P. Hill (Hill, 1995a; Hill, 1995b; Hill, 1998) and R. A. Raimi (Raimi, 1969a; Raimi, 1969b; Raimi, 1976), who published a number of papers on the subject but did not arrive at a mathematical proof of the law's validity.[viii] They at least succeeded in defining approximate rules for the validity of Benford's law, which can loosely be formulated as follows: if we make random selections from arbitrary distributions, then the set of these random selections approximates the Benford distribution.[ix]

The relationships given by the Benford distribution (see above) hold for arbitrary data sets and are invariant to changes in the base and the measurement units. In other words, data sets that conform to the Benford distribution will conform to it even if the data are in a system other than decimal, or if they are expressed in different units of measure (physical, monetary), or if the

original data are multiplied by an arbitrary constant. In other words, any arithmetic operation performed on data obeying the Benford distribution results again in the Benford distribution.[x]

Even though no mathematical proof of the validity of Benford's law has been established, its properties are useful in a number of practical applications (see, e.g., Miller, 2015). In particular, Benford's law has been applied in attempts to prove the unbiasedness of large data sets, i.e., in accounting and macroeconomic statistics. A mismatch of empirical data with Benford's distribution is not yet conclusive evidence of data falsification, but it can be an indicator of certain deviations and a first step toward performing deeper analyses of the data. Therefore, verification of agreement with the Benford distribution should only be used as a complementary tool to traditional procedures or as a first step to finding possible problems. Such a recommendation has been put forth by all authors who deal with the application of Benford's law in economics.[xi]

Benford's law has served very well in the analysis of macroeconomic data.[xii] Rauch et al. (2011) tested the validity of Benford's distribution (by the first digit from the left) on selected national accounts data of the 27 EU Member States from 1999 through 2009.[xiii] Their analysis showed that the least reliable in terms of the validity of Benford's law was the national accounts data of not only Greece[xiv] but also Belgium, Romania, and Latvia. On the other hand, the national accounts data of Luxembourg, Portugal, the Netherlands, Hungary, Poland, and the Czech Republic showed the best agreement with the Benford distribution.

3. VALIDATION OF BENFORD'S LAW ON BUSINESS DATA FROM SELECTED INDUSTRIES IN THE CZECH REPUBLIC

In considering the possibilities of using and empirically verifying Benford's law, we ask whether or not a change in conditions (political, economic, etc.) will result in a significant difference in the structure of the data in terms of the validity of the Benford distribution. To test this hypothesis, we used sales data in selected sectors of the national economy of the Czech Republic from the years 2019 (the last year before the COVID-19 pandemic) and 2020 and 2021 (the years when the functioning of the national economy was most limited due to the pandemic-related measures). However, there was a certain "economic" difference between the two years of the pandemic: while 2020 was characterized by the maximum severity of the restrictions, in 2021, also under public pressure, some easing was already apparent.

The next question we ask is whether Benford's law actually has such a broad validity that it would be verifiable in different situations. Or whether, on the contrary, the arguments are relevant that the validity of Benford's law is essentially random and, consequently, a more general scheme cannot be established for the circumstances under which the rule can be used as a first step to subsequent analyses.

As an example of controversial attitudes, we can mention the auditing profession, where some auditors use Benford's law as a way to initially identify deviations in accounting systems, while

others consider its use unnecessary (yet Benford's law is now a standard part of auditing and accounting software packages).

In order to enable a thorough discussion and commentary on this controversy, we have chosen data that meet the generally accepted requirements for the applicability of Benford's law:

1) maximum and minimum values do not limit the data;
2) the data does not contain randomly generated numbers or those used for identification;
3) the data cover at least three orders of the decimal system;
4) the data set is sufficiently large;
5) the data is not influenced by psychology and contains independent items.

For our analysis, we have chosen the results of a sales survey in three sectors in the Czech Republic manufacturing, trade, and hospitality (i.e., accommodation and catering).[xv] Businesses in these sectors were affected by the pandemic in different ways; the manufacturing industry was the least affected, while hotels, restaurants and other accommodation and recreational facilities were the most affected. The source of the data comes from the anonymized results of the annual surveys of the Czech Statistical Office, which we obtained in accordance with the conditions for providing data for research purposes. In terms of the number of units (sample size), the sets of sales corresponded to the requirements for the applicability of Benford's law. The same applies to the sales values reported by the surveyed units.

Table 1 shows the values of the G statistic for all the industries examined and the "compound" of all the sales data used together. As can be seen, the results do not confirm that Benford's law would dominantly hold for these selected indicators or more broadly. This observation is valid despite the fact that the conditions mentioned above for the law's applicability are met.

We now compare the values of the computed G statistics in the view of the χ^2 goodness-of-fit test described above – cf. Formula (4). By comparing with the usual critical quantile value ($\chi^2_{0,95}[8] = 15.5$ and $\chi^2_{0,95}[9] = 16.9$), we can see the conformity of the structure of the sales data with Benford's law for some situations, some industries, and some years, (both for the 1st and 2nd digits), while at other times, *ceteris paribus*, it is not. Just a cursory glance at the values shown in Table 1 clearly indicates no visible pattern in the G results compared to the critical quantile limit of 15.5 and 16.9, respectively.

Table 1. G statistics values

1st digit	Section	G=		
		2019	2020	2021
	C	26.667291	24.968637	30.173140
	G	11.696248	7.612169	5.820760
	I	109.712511	26.995850	31.390540
	All sections	36.174484	5.648677	6.905229

2nd digit	Section	G=		
		2019	2020	2021
	C	7.122656	15.995024	26.967501
	G	15.050749	11.366798	3.811156
	I	4.903436	4.903436	4.084663
	All sections	8.619214	9.526142	12.532839

1st digit	Probability	All sections – absolute empirical frequency		
d	π_d	2019	2020	2021
1	0.301031	11 498	11 161	10 942
2	0.176091	6 905	6 610	6 548
3	0.124939	4 700	4 606	4 623
4	0.096910	3 574	3 642	3 605
5	0.079181	2 812	2 890	2 893
6	0.066947	2 434	2 467	2 456
7	0.057992	2 165	2 111	2 073
8	0.051153	1 819	1 849	1 810
9	0.045757	1 660	1 740	1 681
	1.000000	37 567	37 076	36 631

2nd digit	Probability	All sections – absolute empirical frequency		
d	π_d	2019	2020	2021
0	0.119679	4 573	4 468	4 374
1	0.113890	4 171	4 239	4 111
2	0.108821	4 139	4 127	3 991
3	0.104330	3 965	3 760	3 942
4	0.100308	3 778	3 694	3 634
5	0.096677	3 550	3 557	3 447
6	0.093375	3 480	3 447	3 391
7	0.090352	3 398	3 444	3 318
8	0.087570	3 261	3 189	3 191
9	0.084997	3 252	3 151	3 232
	1.000000	37 567	37 076	36 631

Source: the authors' own calculations

But there is another possibility: a graphical comparison of the occurrence of each digit (see Charts 1 and 2). In all cases analysed, there is present an optical gradient of empirical frequencies towards Benford frequencies, even where the χ^2 test fails. And this is even true for the occurrence of the first digit and that of the second digit. To illustrate, we present plots from two different periods (2019 and 2021) and for the occurrences of the first and second digits, respectively – cf. Formulas (1) and (2).

Chart 1. Theoretical and empirical frequencies of the first digit from the left – 2019
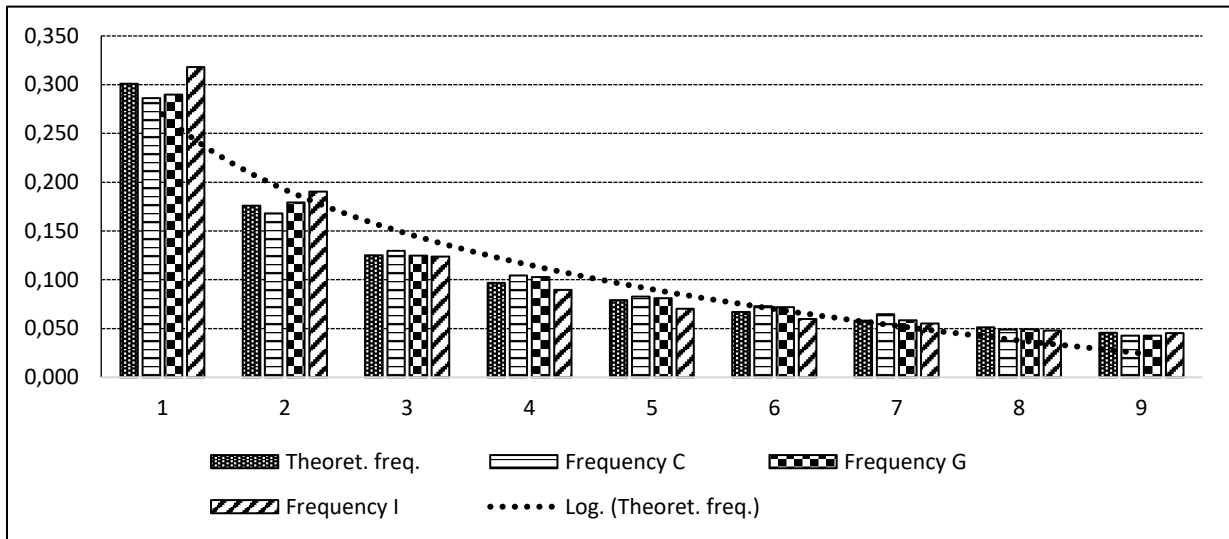
Source: the authors' own calculations

Chart 2. Theoretical and empirical frequencies of the second digit from the left – 2021
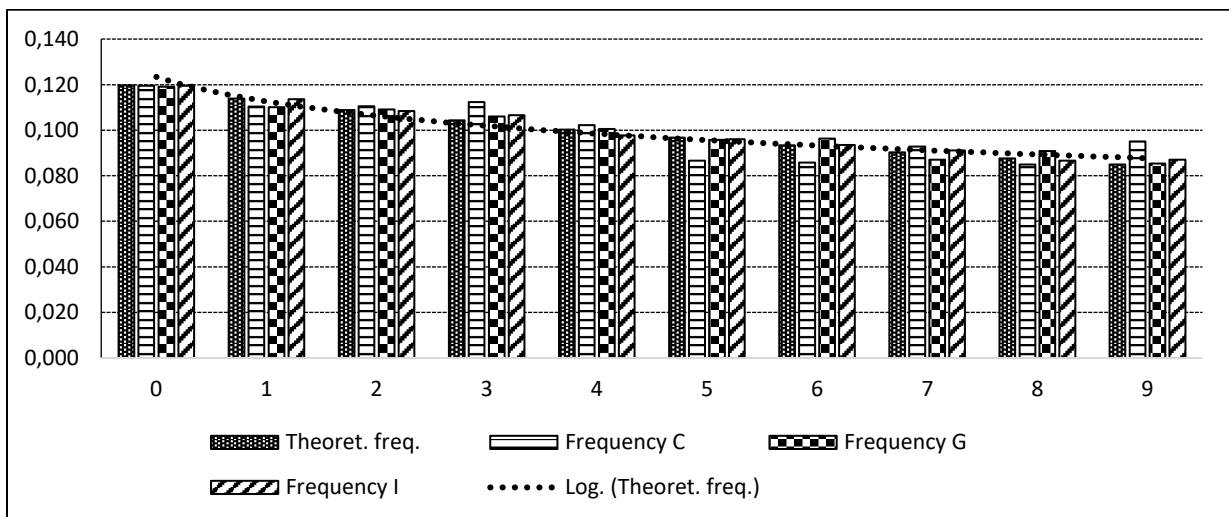
Source: the authors' own calculations

4. CONCLUSIONS

The validity of Benford's law in economic applications has been debated for some time. On the one hand, its proponents affirm the broad validity of the law. On the other hand, its opponents point out that its applicability in economics could be more extensive and that, even if it were valid, it would provide little additional stimulating information. In this paper, we have chosen sales indicators in the Czech economy's three different and economically vital sectors.

We have also tested the effect of the COVID-19 pandemic on the change in the data structure. Namely, we have selected those sectors (manufacturing, trade, and accommodation and catering) where the impacts of the restrictions during the pandemic were different; in the case of trade and accommodation, it was very noticeable, which could significantly affect the

structure of the data about Benford's law. The validity of this law has only partially been proved; the compliance level varies across sectors and years. It should, however, be noted that the shape of the logarithmic curve of the occurrence frequencies for the first and second digits "optically" confirms the Benford distribution of the occurrence frequencies, even though the goodness-of-fit tests have not proved the full validity of the law.

These results lead us to conclude that Benford's law in economic data will need further, systematic attention; its validity has limits and cannot be trivially generalized. In other words, it is necessary to subject this law to many further analyses of a wide range of economic data.

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REFERENCES

Benford, F. (1938). The law of anomalous numbers. *Proceedings of the American Philosophical Society*, *78*(4), 551-572. https://www.jstor.org/stable/984802.

Carslaw, C. A. P. N. (1988). Anomalies in income numbers: Evidence of goal oriented behavior. *The Accounting Review*, *63*(2), 321-366. https://www.jstor.org/stable/248109.

Gonzales-Garcia, J., & Pastor, G. (2009). Benford's Law and Macroeconomic Data Quality. *IFM Working Paper 09/10*. https://www.imf.org/external/pubs/ft/wp/2009/wp0910.pdf.

Hill, T. P. (1995a). A Statistical derivation of the significant-digit law. *Statistical Science*, *10*(4), 354-363. https://doi.org/10.1214/ss/1177009869.

Hill, T. P. (1995b). Base-invariance implies Benford's Law. *Proceedings of the American Mathematical Society*, *123*(3), 887-895. https://doi.org/10.2307/2160815.

Hill, T. P. (1998). The first digit phenomenon. *American Scientist*, *86*, 358-363. https://www.jstor.org/stable/27857060.

Hindls, R., & Hronová, S. (2015). Benford's Law and possibilities for its use in governmental statistics. *Statistika*, *95*(2), 54-64. https://www.czso.cz/documents/10180/20550317/32019715q2054.pdf/ab281a2e-6a14-44c6-972a-be1d5fefd026?version=1.0.

Kossovsky, A. E. (2014). *Benford's Law*. World Scientific Publishing.

Miller, S. J. (Ed.). (2015). *Benford's Law. Theory and Applications*. Princeton University Press. http://assets.press.princeton.edu/chapters/s10527.pdf.

Newcomb, S. (1881). Note on the Frequency of use of the different digits in natural numbers. *American Journal of Mathematics*, *41*(1), 39-40. https://www.jstor.org/stable/i340583.

Nigrini, M. J. (1996). A taxpayer compliance application of Benford's Law: Tests and statistics for auditors. *Journal of the American Taxation Association*, *18*(1), 72-79. https://www.proquest.com/openview/25e7a047460619eadea963d5e63ae375/1?pq-origsite=gscholar&cbl=31656.

Nigrini, M. J. (2005). An assessment of the change in the incidence of earnings management around the enron-andersen episode. *Review of Accounting and Finance*, *4*(1), 92-110. https://doi.org/10.1108/eb043420.

Nigrini, M. J. (2011). *Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations.* Wiley Corporate F&A. https://doi.org/10.1002/9781118386798.ch1.

Niskanen, J., & Keloharju, M. (2000). Earnings cosmetics in a tax-driven accounting environment: evidence from finnish public firms. *European Accounting Review*, *9*(3), 443-452. https://doi.org/10.1080/09638180020017159.

Raimi, R.A. (1969a). The peculiar distribution of first digits. *Scientific American*, *221*(6), 109-119. https://doi.org/10.1038/scientificamerican1269-109.

Raimi, R.A. (1969b). On distribution of first significant figures. *American Mathematical Monthly*, *76*(4), 342-348. https://doi.org/10.2307/2316424.

Raimi, R.A. (1976). The first digit problem. *American Mathematical Monthly*, *83*(7), 521-538. https://doi.org/10.1080/00029890.1976.11994162.

Rauch, B., Göttsche, M., Engel, S., & Brähler, G. (2011). Fact and fiction in EU-Governmental economic data. *German Economic Review*, *12*(3), 243-255. https://doi.org/10.1111/j.1468-0475.2011.00542.x.

Watrin, Ch., Struffert, R., & Ullmann, R. (2008). Benford's Law. An instrument for selecting tax audit targets. *Review of Managerial Science*, *2*, 219-237. https://doi.org/10.1007/s11846-008-0019-9.

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[i] Naturally, the digit 0 must also be taken into consideration here.

[ii] Cf., e.g., Hindls and Hronová (2015).

[iii] Cf. Newcomb (1881).

[iv] If the occurrence probability of a digit from among 0, 1, ..., 9 at the second position from the left depends on the occurrence of a certain digit 1, 2, ..., 9 at the first position from the left, it is necessary to formulate a model of conditional probabilities – see Hindls and Hronova (2015) for details.

[v] For the reasons explained above, we will not consider the other positions from the left.

[vi] Another option to test the sample data for fit to the Benford distribution would be to use the Z statistic – see Kossovsky (2014); or to use the mean absolute difference (MAD) – see Nigrini (2011).

[vii] In particular, where the variables can only take values from a certain interval given by the factual nature of the data, e.g., shoe or clothing size, etc.

[viii] Cf. Raimi (1969b), p. 347.

[ix] Cf. Hill (1998) and Raimi (1969b).

ˣ Cf., e.g., Watrin et al. (2008).

ˣⁱ Cf., e.g., Carslaw (1988), Nigrini (2005), Nigrini (1996), Guan et al. (2006), Niskanen and Keloharju (2000), and Watrin et al. (2008).

ˣⁱⁱ Cf., for example, Nye and Moul (2007) or Gonzales-Garcia and Pastor (2009).

ˣⁱⁱⁱ In total, there were 36,691 values contained in 297 files.

ˣⁱᵛ However, the problem with Greece's national accounts data had already been known. Eurostat refused to accept the Greek government's data twice, in 2002 and again in 2004, due to the unreliability issues (cf. Report by Eurostat on the Revision of the Greek Government Deficit and Debt Figures –
http://ec.europa.eu/eurostat/documents/4187653/5765001/GREECE-EN.PDF).

ˣᵛ The definitions of the sectors correspond to the sections of the CZ-NACE classification: Section C – Manufacturing, section G – Wholesale, retail trade, repair and maintenance of motor vehicles, section I – Accommodation, catering and restaurant services

UNRAVELING BRAND COOLNESS EFFECTS ON BRAND LOVE AND BRAND EQUITY: INSIGHT FROM BALI, INDONESIA

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Abstract

This research aims to analyze the relationships between brand coolness, brand love, and brand equity in the context of a tourist destination. Questionnaires were used as the primary instrument to collect data from the 300 domestic tourists who traveled to Bali, Indonesia. Path analysis was utilized in the analysis of the data. The findings of the research showed that brand coolness has an influence on brand love. Additionally, there are both direct and indirect effects of brand coolness on brand equity. Specifically, the indirect effect is mediated by brand love. It is expected that this research will contribute new knowledge to the growing body of literature on tourism marketing and city branding. In addition, the findings of this study can also be utilized to enhance the brand strategies of tourism destinations.

Keywords: brand coolness, brand equity, brand love, destination marketing, city branding

Selection and peer-review under responsibility of the 3rd Current Issues in Business and Economic Studies Conference.

1. INTRODUCTION

Branding is a tool used to create loyal, long-term relationships with consumers (Kim et al., 2016; Tournois and Rollero, 2019). In the field of tourism studies, this phenomenon has been a hot topic, especially for destinations (Boo et al., 2009; Chan and Marafa, 2018). As a marketing approach, branding has contributed to the success of several well-known tourist destinations (Morgan et al., 2011).

Nowadays, vacationers adore "cool" towns and have a strong desire to visit them, and one possible reason for this desire is that visits to "cool" places look good on social media accounts. Therefore, having a reputation for being cool might be a distinct advantage for a city or even a country. A previous study showed that a city's coolness is linked to tourists' plans, actual visits, intention to recommend the city, and willingness to pay more to go there (Kock, 2021). The idea of brand love has recently been increasingly central in marketing studies (Gumparthi and Patra, 2020; Roy et al., 2013). Affective feelings of satisfied customers are represented by "brand love", which is described as "emotional and passionate feelings for a brand that could lead to commitment and loyalty" (Roy et al., 2013). When evaluating the success of destination branding and the ability of a destination brand to generate value for consumers, brand equity is the metric that is utilized (Tran et al., 2019; Wang et al., 2020).

Bali serves as a "barometer" for Indonesia's overall progress in the tourism industry (Diposumarto et al., 2015). Bali, with all of the one-of-a-kind aspects of its culture and people, along with the harmony of the exoticism of the natural environment and the inventiveness of the people, has the potential to be the fundamental capital for the growth of tourism that has an advantage over other destinations. However, even with all the allure of its tourist attractions up to this point, Bali still has a significant amount of untapped tourism potential that can be enhanced further to attract more visitors (Arianto et al., 2022). Therefore, this research aims to study further brand coolness, brand love, and brand equity using Bali as a case.

2. LITERATURE REVIEW

2.1. Brand Coolness

Brand coolness can be described as the degree to which it provides consumers with a cool (or uncool) experience (Gurrieri, 2009). Coolness is neither a property of an object nor a quality of a person; rather, it is a perception connected to an impression that calls for the validation of others (Belk et al., 2010; Warren et al., 2019). Cool cities are desirable destinations for all people. In a similar vein, cities that are not considered cool are often perceived to be dull, and as a result, they struggle to attract tourists. Cities that are considered cool are ones that are seen as being genuine, rebellious, original, and energetic (Kock, 2021).

2.2. Brand Love

The term "destination brand love" refers to the positive feelings tourists and visitors have for a particular brand when visiting a particular travel destination. Tourists may have a positive sense of a memorable travel experience for a particular destination, which may result in their repeated travels to the same destination in order to recall pleasant recollections of the destination experience (Aro et al., 2018; Swanson, 2017). A previous study suggested three dimensions of destination brand love based on the concept of brand love. These three dimensions include passionate love, emotional attachment, and self-brand integration. All three of these dimensions can boost and sustain destination loyalty (Tsai, 2014).
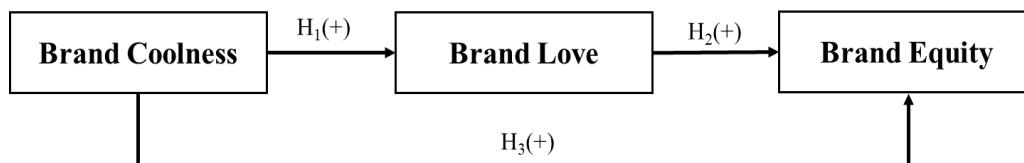
2.3. Brand Equity

Brand equity is a value that is added to a product when it is associated with a particular brand. Simply, "actual and/or perceived assets and liabilities that are connected with a place and that distinguish it from others" is what is meant to be encompassed by the phrase "destination brand equity" when discussing tourist destinations (Papadopoulos, 2004). Studies on tourism have defined and applied four components to study destination brand equity, which is as follows: destination brand awareness; destination brand image; destination perceived quality; and destination brand loyalty (Boo et al., 2009; Pike and Bianchi, 2016; Tran et al., 2019).

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

The research hypotheses, the conceptual framework of the study, and an illustration of the relationship between brand coolness, brand love, and brand equity, are depicted in Figure 1.

Figure 1. A conceptual framework and hypotheses

Three research hypotheses are tested in this research, including H1: Brand coolness is positively associated with brand love, H2: Brand love is positively associated with brand equity, and H3: Brand coolness is positively associated with brand equity.

4. METHODOLOGY

The survey questionnaires were utilized in the research project. A Likert scale of seven points was used, with one end representing "strongly disagree" and seven points representing "strongly agree." This research collected data from a comprehensive survey of 300 domestic tourists who visited Bali. Participants were asked to complete a 50-item questionnaire comprising general tourist information and measures of brand coolness, brand love, and brand equity. The process of data collection was done at various tourist attractions in Bali, Indonesia. The date range for

collecting data using the questionnaire was from October 15 to November 15, 2022. The assumption is that sample selection targeting appropriate audiences by research aims is sufficient and dependable for a representative sample (Kline, 2016).

The questionnaire was divided into 4 main sections, which are as follows: 1) general tourist information; 2) brand coolness; 3) brand love; and 4) brand equity. The brand coolness component was taken from Kock (2021) and consisted of 12 questions. The brand love component was taken from Tsai (2014) and consisted of 12 questions. Finally, the brand equity component was taken from Tran et al. (2020) and consisted of 14 questions. For this measurement, a 7-point Likert scale was employed. Path analysis was the primary method that was conducted to examine the data.

5. RESULTS AND DISCUSSION

Data were analyzed using descriptive statistical analysis. Furthermore, the framework and hypotheses were mainly evaluated using path analysis. The statistical programs IBM SPSS v.28 and AMOS v.28 were used to analyze the data.

5.1. Preliminary Data Analysis

Females made up 56.3% of the respondent population, while males made up 43.7%. Moreover, 58.7% of respondents were unmarried and the majority of the respondents were between the ages of 18 and 29 with a total of 61%. 51.7% of respondents had a bachelor's degree for the educational level. Furthermore, 35.3% of them worked as business employees, and about 52.7% and 28.7% of the respondents had monthly incomes less than Rp. 5.000.000 and Rp. 5.000.001 - Rp. 10.000.000, respectively. In this study, hotels were the most common type of lodging with 54%. In terms of the origin of the domestic tourists, 52.7%, 28.3%, and 19.0% of respondents came from the western, eastern, and middle parts of Indonesia, respectively. 43.7% of them stayed in Bali for two to three nights, followed by 32.3% of the tourists who stayed for four to five nights. 27.7% traveled with their organization's tour group, 26.3% with family, and 18.0% with friends. In addition, 41.3% of the respondents were first-time travelers to Bali and about 40.3% had visited Bali two to five times.

Table 1. The results of Cronbach's Alpha

Construct	No. of items	Mean	SD	Cronbach's Alpha
Brand Coolness (BC)	12	6.09	0.53	0.86
Brand Love (BL)	12	5.92	0.59	0.85
Brand Equity (BE)	14	6.05	0.55	0.88

Cronbach's Alpha values for the measurement ranged from 0.85 to 0.88 and are greater than 0.70. As a result, the measurements utilized in this investigation fall within the parameters of what is considered to be an acceptable level (Hair et al., 2019). The mean values of the questionnaire items ranged within the range of 5.92 to 6.09, while the values of the standard deviation were between 0.53 and 0.59 in Table 1. The skewness and kurtosis values ranged from -0.69 to -0.46 and 0.39 to 0.91, respectively. All of the item's values fell within the range of -2 to 2. Thus, the obtained data for the investigation were normally distributed (Tabachnik and Fidell, 2019). The tests of the correlation matrix ranged from 0.62 to 0.69, VIF ranged from 2.035 to 2.389, and tolerance ranged from 0.42 to 0.49, revealing the absence of a multicollinearity problem (Stevens, 2009).

5.2. Path Analysis

To study the relationship between brand coolness, brand love, and brand equity, the researcher analyzes these variables' direct and indirect effects using path analysis.

Figure 2. The results of path analysis on brand coolness, brand love, and brand equity
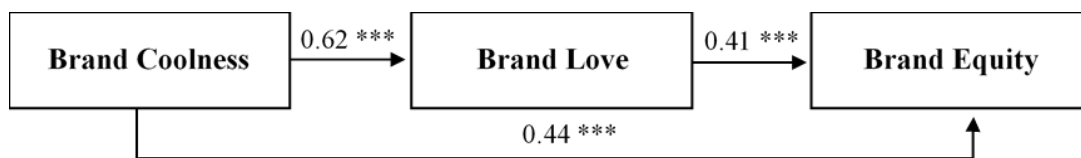
Path analysis yielded results consistent with empirical evidence regarding the relationship between brand experience, brand coolness, and brand equity. Brand coolness influences brand love and brand equity positively. Additionally, brand love is positively associated with brand equity (Figure 2).

Table 2. Summary of the findings of the study

No.	Hypothesis	β	t-value	Result
H1	Brand coolness is positively associated with brand love.	0.62	13.745 ***	Supported
H2	Brand love is positively associated with brand equity.	0.41	8.598 ***	Supported
H3	Brand coolness is positively associated with brand equity.	0.44	9.114 ***	Supported

$R^2_{BL} = 0.39$, $R^2_{BE} = 0.58$
$*P < .05, **P < .01, ***P < .001$

The results of Table 2 provide evidence that supports hypotheses H1, H2, and H3. The standardized estimates for each of these hypotheses are statistically significant ($\beta=.62$, $P <.001$, $\beta=.41$, $P <.001$, and $\beta=.44$, $P <.001$, respectively). All of the study's hypotheses were supported by the findings, which accounted for 39% of the variance in brand love and 58% of the variance in brand equity.

Brand coolness is a relatively new concept in terms of tourism marketing (Kock, 2021). Therefore, the concept of brand coolness in the term of tourism destinations provides ample opportunities for researchers interested in the field of tourism. To the best of our knowledge, this is the first investigation to study the relationship between brand coolness, brand love, and brand equity in tourism marketing and branding using the city of Bali as a data source. Previously, many researchers studied those variables, but they focused on fashion, technology, luxury brand products, and others (Gómez and Pérez, 2018; Khamwon and Kularbkaew, 2021; Tiwari et al., 2021; Verma, 2021). Consistent with earlier findings, the result reveals a positive relationship between brand coolness and brand love (Dwikinanda, 2021; Tiwari et al., 2021; Warren et al., 2019). Following that, brand coolness has a direct influence on brand equity as well as an indirect influence through brand love. These results are supported by several previous research findings from Cho and Hwang (2020), Khamwon and Kularbkaew (2021), and Verma (2021).

6. CONCLUSION

This study extends our knowledge of the internal mechanism by which brand coolness influences brand equity. According to the study's findings, there is a positive relationship between brand coolness and brand love. Moreover, brand coolness has a direct effect on brand equity as well as an indirect effect through brand love. The findings of this study add to the formation of theory in the body of literature on tourism branding and marketing. The results of this research can also be applied to enhance the brand strategies of the city.

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REFERENCES

Arianto, H., Pitana, I. G., Wiranatha, A. S., & Budiarsa, M. (2022). The effectiveness of Bali tourism promotion throughout digital marketing videos. *International Journal of Social Science*, *1*(5), 533-562.

Aro, K., Suomi, K., & Saraniemi, S. (2018). Antecedents and consequences of destination brand love—A case study from Finnish Lapland. *Tourism Management*, 67, 71-81.

Belk, R. W., Tian, K., & Paavola, H. (2010). Consuming cool: Behind the unemotional mask. In R. W. Belk (Eds.), *Research in Consumer Behavior* (pp. 183–208). Emerald Group Publishing Limited.

Boo, S., Busser, J., & Baloglu, S. (2009). A model of customer-based brand equity and its application to multiple destinations. *Tourism Management*, *30*(2), 219–231.

Chan, C.-S., & Marafa, L. M. (2018). Branding places and tourist destinations: a conceptualisation and review. In M. Anthony Camilleri (Eds.), *The branding of tourist destinations: Theoretical and empirical insights* (pp. 15–42). Emerald Publishing Limited.

Cho, E., & Hwang, J. (2020). Drivers of consumer-based brand equity: A two-country analysis of perceived brand origin and identity expressiveness. *International Marketing Review*, *37*(2), 241-259.

Diposumarto, N. S., Purwanto, W., & Ramdan, I. (2015). Analysis of tourism destination image and promotion through social media towards purchasing decision for Bali tourism product by foreign tourist. *Mediterranean Journal of Social Sciences*, 6(5), 175-182.

Dwikinanda, I. (2021). *Brand Coolness Effects on Brand Love, Purchase Intention and Word of Mouth: Application to Indonesian Women Modest Sportswear* [Thesis]. ISCTE Business School.

Gómez, M. C. O. & Pérez, W. G. (2018). Effects of brand love and brand equity on repurchase intentions of young consumers. *International Review of Management and Marketing*, *8*(4), 7-13.

Gumparthi, V. P. & Patra, S. (2020). The phenomenon of brand love: a systematic literature review. *Journal of Relationship Marketing*, *19*(2), 93-132.

Gurrieri, L. (2009). Cool brands: a discursive identity approach. *Australia and New Zealand Marketing Academy Conference*, Australia, 1-8.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Pearson Education.

Khamwon, A. & Kularbkaew, U. (2021). Brand coolness, brand engagement and brand equity of luxury brand. *Asian Journal of Research in Business and Management*, *3*(3), 1-7.

Kim, S., Moon, J. & Choe, J. (2016). Comparison of destination brand equity models of competitive convention cities in East Asia. *Journal of Convention & Event Tourism*, *17* (4), 318-342.

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Press.

Kock, F. (2021). What makes a city cool? understanding destination coolness and its implications for tourism. *Tourism Management*, *86*, 1-16.

Morgan, N., Pritchard, A., & Pride, R. (2011). *Destination Brands: Managing Place Reputation.* Routledge.

Papadopoulos, N. (2004). Place branding: evolution, meaning and implications. *Place Branding*, 1(1), 36-49.

Pike, S. & Bianchi, C. (2016). Destination brand equity for Australia: testing a model of CBBE in short-haul and long-haul markets. *Journal of Hospitality & Tourism Research*, *40*(1), 114-134.

Roy, S. K., Eshghi, A., & Sarkar, A. (2013). Antecedents and consequences of brand love. *Journal of Brand Management*, *20*(4), 325-332.

Stevens, J. P. (2009). *Applied Multivariate Statistics for the Social Sciences* (5th ed.). Routledge.

Swanson, K. (2017). Destination brand love: managerial implications and applications to tourism businesses. *Journal of Place Management and Development*, *10*(1), 88-97.

Tabachnik, B. G., & Fidell, F. S. (2019). *Using Multivariate Statistics* (7th ed.). Pearson Education.

Tiwari, A. A., Chakraborty, A., & Maity, M. (2021). Technology product coolness and its implication for brand love. *Journal of Retailing and Consumer Services*, *58*, 1-10.

Tournois, L. & Rollero, C. (2019). What determines residents' commitment to a post-communist city? a moderated mediation analysis. *Journal of Product & Brand Management*, *29*(1), 52-68.

Tran, P. K. T., Nguyen, V. K., & Tran, V. T. (2020). Brand equity and customer satisfaction: a comparative analysis of international and domestic tourists in Vietnam. *Journal of Product & Brand Management*, *30*(1), 180-194.

Tran, V. T., Nguyen, N. P., Tran, P. T. K., Tran, T. N., & Huynh, T. T. P. (2019). Brand equity in a tourism destination: a case study of domestic tourists in Hoi An city, Vietnam. *Tourism Review*, *74*(3), 704-720.

Tsai, S.-P. (2014). Love and satisfaction drive persistent stickiness: investigating international tourist hotel brands. *International Journal of Tourism Research*, *16*(6), 565-577.

Verma, P. (2021). The effect of brand engagement and brand love upon overall brand equity and purchase intention: a moderated–mediated model. *Journal of Promotion Management*, *27*(1), 103-132.

Wang, S., Japutra, A., & Molinillo, S. (2020). Branded premiums in tourism destination promotion. *Tourism Review*, *76*(5), 1001-1012.

Warren, C., Batra, R., Loureiro, S. M. C., & Bagozzi, R. P. (2019). Brand coolness. *Journal of Marketing*, *83*(5), 36-56.

TAXATION OF DONATIONS AND GRANTS FOR THE FINANCING OF EARTHQUAKE EXPENDITURES IN TURKEY

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Abstract

The paper aims to explain the situation of donations and grants that differ according to the tax legislation depending on the institution they are made. This paper uses a document analysis method to achieve the objectives of the study. In the study, not all organizations, but besides municipalities and AFAD as governmental organizations; AHBAP, Kızılay, and Search and Rescue Association (AKUT) are discussed as non-governmental organizations. Another limitation of the study is that the tax legislation is not examined for all donations and grants, but only for the in-kind and financial aids made during the earthquake. The fact that donations and grants made for the financing of earthquake expenditures are subject to different tax applications depending on the institution they are made, creates a result, especially in favor of aid institutions carried out by the government. This situation creates an unjust result through an indirect intervention in personal preferences and is criticized by society. Since the paper focuses on a current debate, so academic studies on this subject are limited. Although there are reports that deal with the matter in terms of all donations and grants, no academic study focuses directly on the donations and grants made during the earthquake and examines the issue according to the legal status of the donated institutions.

Keywords: earthquake, AFAD, AHBAP, Kızılay, deduction, donations

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1. INTRODUCTION

According to official figures, more than 45 thousand people have lost their lives in earthquake disasters that have been experienced since 2020 in Turkey. In recent years, after the earthquakes in Elazig and Izmir in 2020, and the fire disasters in Manavgat and Marmaris in the summer of 2021, Turkey has gone through great tests regarding natural disasters.

In this process, governmental organizations such as governorships and municipalities, the Disaster and Emergency Management Presidency (AFAD) affiliated to the Ministry of Interior, and the Kızılay were insufficient in providing coordination and support. So the civilian population also offered assistance through non-governmental organizations such as AKUT and AHBAP and supported their activities.

Finally, after the earthquake disasters in Kahramanmaraş on 06.02.2023, which affected ten provinces, numerous aid campaigns were organized to heal the wounds, and both individuals and institutions made significant donations and grants. Deducting these donations and grants from tax bases is argued in this process.

This paper aims to explain the situation of donations and grants collected to finance the expenditures to heal the wounds of the earthquake. They differ according to the tax legislation depending on the institution they are made in.

This paper uses a document analysis method. After the introductory part, the first part explains the legal status of the governmental and non-governmental organizations. The second part analyzes the situation of donations and grants under the tax legislation according to the organization they are made.

2. LEGAL STATUS OF DONATED ORGANIZATIONS DUE TO EARTHQUAKE DISASTER

Undoubtedly, there are various associations or public administrations to which individuals or institutions can donate and grant after the earthquake disaster. However, in the study, five main governmental and non-governmental organizations stand out in this process and cause differences in deducting donations and grants from the tax base due to their legal status. These are; municipalities, AFAD, AHBAP, AKUT and Kızılay.

Since the statutes of the municipalities are clear and are directly referred to by this name in the articles of the law, it was not deemed necessary to make a separate statement regarding the municipalities. AFAD, which works on disasters in Turkey, is among the general budget administrations included in the attached Table I of Law No. 5018. With the regulation in 2009, the General Directorate of Civil Defense, the General Directorate of Disaster Affairs and the General Directorate of Emergency Management of Turkey, which had previously worked under different ministries, were closed. AFAD, which was affiliated with the Prime Ministry, was established and the authorities and responsibilities were gathered under a single roof. With the

regulation in 2018, this presidency was subordinated to the Ministry of Interior (Disaster and Emergency Management Presidency, 2022).

Duties of AFAD;

> *"Taking the necessary measures for the effective delivery of services related to disasters and emergencies and civil defense at the country level and ensuring coordination between institutions and organizations that carry out preparation and risk reduction before the occurrence of the incident, the intervention to be made during the incident and the improvement to be carried out after the incident, and abroad, to conduct and coordinate humanitarian aid operations, and to develop and implement policy proposals on these issues".*

AHBAP is an association established in 2017. The purpose of the association is stated in the 2nd article of the association's statute (AHBAP, 2020);

> *"To provide all kinds of aid to people and animals in need, in kind and in cash, to strengthen the awareness of cooperation in the society, to support all kinds of animals in need of care while developing the love for animals and the environment, to serve the building of good people and good society, to create modern and sustainable networks of cooperation and solidarity with new cooperation models and projects, to contribute to the development of the local culture with today's technological opportunities and to carry it to the future".*

As explained in detail in the second section, it is important whether an association has the status of a public benefit association in terms of taxation. According to Article 27 of the Law on Associations (Associations Law, 2004);

> *"Public benefit associations are determined by the Presidential Decision. In order for an association to be considered as a public benefit association, it must have been operating for at least one year, and the purpose of the association and the activities it undertakes to achieve this aim must be of a quality and extent that will yield beneficial results to the society".*

Although the AHBAP association has these conditions, it is criticized for not having this status. Public benefit associations are determined by the Ministry's proposal and the President's decision based upon the opinion of the Ministry of Treasury and Finance and the relevant ministries, if any (Associations Regulation, 2005). For this reason, Turkish society frequently calls for the AHBAP Association to be given the status of a public benefit association.

Turkey's first search and rescue association, Search and Rescue Association (AKUT), was established in 1995 by a group of mountaineers to carry out accurate and effective search and rescue activities in the mountains and other difficult natural conditions and has become able to assist relevant official institutions in natural disasters, if requested, by taking the necessary

pieces of training quickly. AKUT, which continues to operate on a completely voluntary basis, received the status of public benefit association on January 19, 1999, with the decision of the Council of Ministers, due to its usefulness in the 1998 Adana-Ceyhan earthquake (AKUT, 2013).

Finally, Kızılay is an organization whose history dates back to 1868 and was born out of the desire to help soldiers injured or sick on the battlefield without discrimination. The legal status of the Kızılay has been determined by; The Geneva Convention on the Protection of Civilians in Time of War, dated 12/8/1949 signed by the Government of the Republic of Turkey in 1954, and the legal text regarding the Statute of the International Red Cross-Red Crescent Movement, which was accepted at the 25th International Red Cross-Red Crescent Conference in 1986 and to which the Republic of Turkey is a party. In this context, *"Kızılay is an autonomous, independent and impartial organization operating in our country under the name of Red Crescent, with a central administration that will represent itself in its relations with other elements of the International Red Cross-Red Crescent Movement and operates according to the basic principles of the movement"* (Kızılay Association Statute, 2022). Kızılay has the public benefit association status (General Directorate of Civil Society Relations, n.d.).

3. INVESTIGATION OF DONATED AND GRANTS DUE TO EARTHQUAKE IN TERMS OF TAXATION LEGISLATION

There are various provisions in the Turkish tax legislation that consider donations and grants as expenses in determining the tax base. Therefore, in this part of the study, not all donations and grants, but only in-kind and/or cash aids made by individuals and/or institutions after the earthquake disaster in Turkey on 06.02.2023, and their situation under the tax legislation are analyzed.

3.1. Situation of Donations and Grants in Terms of Income and Corporate Tax Laws

The subject of income tax is a natural person's income (Income Tax Law, 1960). The concept of corporate tax is the corporate earnings of the corporates listed in the law (Corporate Tax Law, 2006).

In the 89th article of the Income Tax Law titled *"Other Discounts"* and the 10th article of the Corporate Tax Law with the same title, the deductions that can be made from the income/earnings to be declared in the tax returns are listed.

The regulations regarding the donations and grants financing for earthquake expenditures in these articles are as follows;

According to the 4th paragraph of the 89th article of the Income Tax Law, up to 5% of the total annual income to be declared (10% for priority regions in development), all donations and grants made to public administrations with general and special budgets, special provincial

administrations, municipalities, villages, public benefits associations, and foundations granted tax exemption by the President, can be deducted.

According to Article 10 of the Corporate Tax Law, corporate taxpayers, in addition to the organizations to which donations and grants can be made to be subject to deduction by income taxpayers, they can also deduct their donations and grants to institutions and organizations engaged in scientific research and development activities within the same scope. On the other hand, a 10% rate of corporate tax is not valid for priority regions in development.

According to the articles, in order to be subject to a deduction of donations and grants (Revenue Administration, 2023);

- must be subject to deduction in a year in which the donor taxpayer has an income/earning to be declared,
- must be shown separately in the income tax and corporate tax returns,
- must deduct only from the income/corporate earnings of the donated period,
- must deduct limited to the declared income/corporate earning, and the part that is not deducted must not be carried over to the following years,
- must be made against a receipt,
- must be outright,
- must donate to the institutions and organizations specified in the legislation.

The point that creates controversy here is that donations and grants are subject to different tax regulations according to the donated organization.

According to the article, it is clear that tax deduction is possible if the donated organization is a municipality. AFAD has the status of a general budget institution. Kızılay and AKUT, on the other hand, are public benefits associations. Due to these statuses, it is possible to benefit from discounts on donations and grants donated to AFAD, AKUT and Kızılay. However, since AHBAP is not a public benefit association, there is no tax deduction for donations and grants to AHBAP. On the other hand, other paragraphs of the article envisage more important privileges in favor of Kızılay and AFAD.

According to the 10th paragraph of the 89th article of the Income Tax Law; all in-kind and cash donations made against receipts to aid campaigns initiated by the President can also be subject to the tax deduction.

After the earthquake in Elazig on 24.01.2020, a humanitarian aid campaign was started with Presidential Decision No. 2093 published on 12.02.2023 and AFAD was assigned to coordinate this campaign. Later, after the earthquake that occurred in İzmir on 30.10.2020, AFAD was authorized for aid campaigns to be made for the disaster victims who suffered from earthquakes that may occur in our country as of this date, with Presidential Decision No. 3483 published on 03.02.2021.

According to the 11th paragraph of the 89th Income Tax Law article, all cash donations and grants to the Kızılay and the Yeşilay associations, except their economic enterprises, can be deducted. Therefore, all of the cash donations and grants to the Kızılay can be deducted as an expense in determining the tax base. The point to be noted here is that only all cash donations and grants can be deducted entirely. If the donation is made in kind, only part of the donation amount, up to 5% of the income, can be deducted.

These provisions are also included in other paragraphs of Article 10 of the Corporate Tax Law. Therefore, the same deductions are in question in terms of corporate tax.

3.2. Situation of Donations and Grants in Terms of Value-Added Tax Law

The subject of value-added tax; deliveries and services made within the framework of commercial, industrial, agricultural and self-employment activities in Turkey, imports of all kinds of goods and services, and deliveries and services arising from other activities listed in the law.

Exceptions are regulated in Article 17 of the Law. According to the article, all kinds of goods deliveries and services are rendered free of charge to general and special budget administrations, special provincial administrations, municipalities, villages, their unions, universities, organizations with revolving funds, public institutions and organizations established by law and Presidential Decree, professional organizations like public institutions, political parties and trade unions, pension and welfare funds established by law or having legal personality, public benefits associations agricultural cooperatives and foundations granted tax exemption by the President are exempted from VAT.

This exception is applied without any lower or upper limit regarding the delivery and service fee. In addition, VAT incurred for transactions made within the scope of this exception can be deducted, but VAT that cannot be recovered through a discount is not refundable (Revenue Administration, 2023).

According to this regulation, the value-added tax is not paid for donations and grants to municipalities, Kızılay, AKUT and AFAD. However, paying VAT separately for donations and grants to the AHBAP is necessary.

3.3. Situation of Donations and Grants in Terms of Special Consumption Tax Law

The subject of the special consumption tax is the import, manufacture, delivery, and sale of the goods included in the four lists attached to the law or the first acquisition of those subject to registration and registration.

Exceptions are included in Article 7 of the Special Consumption Tax Law. Among these exceptions, the exception foreseen for the goods in List IV is important in terms of the donations made for earthquakes. According to this article, free delivery of goods such as washing

machines, dishwashers, and refrigerators included in list IV to general and special budget administrations, special provincial administrations, municipalities, villages, and their unions or their importation free of charge are exempted from special consumption tax. Therefore, donations to AFAD are exempt from special consumption tax.

On the other hand, since there are no exceptions for associations, it is necessary to pay special consumption tax for the goods on the list, which are received within the scope of aid to the Red Crescent, together with AHBAP and AKUT.

Since donations and grants made for earthquakes are gratuitous, the situation of these donations and aids in terms of inheritance and gift tax is essential.

3.4. Situation of Donations and Grants in Terms of Inheritance and Gift Tax Law

The subject of inheritance and gift tax is the transfer of the goods belonging to the citizens of the Republic of Turkey and the goods in Turkey by inheritance or donation. Donation refers to gratuitous acquisitions by grant or in any form (Revenue Administration, 2023).

According to Article 3 of the Inheritance and Gift Tax Law, public administrations, pension and welfare funds, social insurance institutions, public benefits associations, political parties and those that belong to them or the establishments they have established among them, which are not subject to corporate tax, are exempt from this tax. Accordingly, AFAD, AKUT and Kızılay are exempt from inheritance and gift tax due to the donations to them.

On the other hand, since the continuation of the article includes organizations other than those listed, which belong to legal persons and are established for the benefit of the general public, such as science, research, culture, art, health, education, religion, charity, public works, and sports, they are also exempted. Therefore, AHBAP can also benefit from this exemption.

4. CONCLUSION

The last earthquake disaster in Turkey in recent years took place in February 2023 and caused the loss of life and property of tens of thousands of people. In addition to public resources, donations and grants made to organizations are also important sources of financing for healing these wounds.

Since Turkish tax legislation does not allow donations and grants made to governmental organizations such as general budget institutions and municipalities or non-governmental organizations such as public benefits associations and foundations granted tax exemption by the President to be discounted, the disadvantageous situation of AHBAP, where citizens make significant donations and aids, is criticized. In addition, tax regulations in favor of AFAD have started to attract reactions, mainly due to the donations made to AFAD by business people known to be close to the government.

As a result, it would be correct to take the AHBAP Association to the status of a public benefit association. In addition, it would be fair and beneficial that the tax advantages stipulated in the laws for donations and aid made in extraordinary situations such as earthquakes and fires are valid for all aid organizations, regardless of organization and public benefit association status.

References

AHBAP. (2020). *Charter*. https://ahbap.org/tuzuk (Accessed Date: 01 March 2023).

Associations Law. (2004). https://www.mevzuat.gov.tr/mevzuatmetin/1.5.5253.pdf (Accessed Date: 01 March 2023).

Associations Regulation. (2005). https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=8038&MevzuatTur=7&MevzuatTertip=5 (Accessed Date: 01 March 2023).

CorporateTax Law. (2006). https://www.mevzuat.gov.tr/mevzuatmetin/1.5.5520.pdf (Accessed Date: 01 March 2023).

Disaster and Emergency Management Presidency. (2022). *About Us*. https://en.afad.gov.tr/about-us (Accessed Date: 01 March 2023).

General Directorate of Civil Society Relations. (n.d). *Public Benefit Association Status*. https://www.siviltoplum.gov.tr/kamu-yararina-calisan-dernek-statusu (Accessed Date: 01 March 2023).

Income Tax Law. (1960). https://www.mevzuat.gov.tr/mevzuatmetin/1.4.193.pdf (Accessed Date: 01 March 2023).

Inheritance and Gift Tax Law. (1959). https://www.mevzuat.gov.tr/mevzuatmetin/1.3.7338.pdf (Accessed Date: 01 March 2023).

Kızılay Association Statute. (2022). https://www.kizilay.org.tr/ms/politiklarimiz/Turkiye-Kizilay-Dernegi-Tuzugu-26.04.2022.pdf (Accessed Date: 01 March 2023).

Revenue Administration. (2023). *Vergi Mevzuatı Yönünden Bağış ve Yardımlar Rehberi*. https://www.gib.gov.tr/vergi-mevzuati-yonunden-bagis-ve-yardimlar-rehberi-yayinlandi (Accessed Date: 28 February 2023).

Search and Rescue Association (AKUT). (2013). *About AKUT*. https://www.akut.org.tr/en (Accessed Date: 01 March 2023).

Special Consumption Tax Law. (2002). https://www.mevzuat.gov.tr/mevzuatmetin/1.5.4760.pdf (Accessed Date: 01 March 2023).

Value-Added Tax Law. (1984). https://www.mevzuat.gov.tr/mevzuatmetin/1.5.3065.pdf (Accessed Date: 01 March 2023).

EVALUATION OF RESIDENTS FOR THE IMPACT OF TOURISM DEVELOPMENT AND THEIR PARTICIPATION IN LOCAL GOVERNANCE

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Abstract

This study aims to investigate inhabitants' opinions on tourism development as well as their attitudes toward participation in local governance in the study area. Tourism is the main source of their livelihood and is one of the most important dimensions of development. Nowadays is very important to examine the attitude of the residents toward the planning and development of sustainable tourism. The study focuses on the sociological tradition of social exchange guided by the premise that individual feelings can be important elements that influence people's social response and the community's supportive or non-supportive attitude towards tourism development. Based on this reasoning, the questions of the study are 1) How do residents of Saranda evaluate the development of tourism in their place of residence? 2) Are the Saranda residents interested in planning and developing tourism in their area? 3) What is the perception of the residents of Saranda about the impact of tourism development in their area? The purpose of this study is to help in planning the development of sustainable tourism by incorporating two main factors: the involvement of the community in the process and the inclusion of appropriate indicators to understand the factors that influence residents' participation in sustainable tourism in current conditions. In addition to providing a practical contribution to the planning and development of sustainable development strategies in the research region, the study's findings help us better understand the impact of tourism development in the study area. It also directs scientific research and other studies in measuring and analyzing additional aspects that influence how economic resources are used in the study area.

**Keywords:** the assessment of residents, the impact of tourism, sustainable development, community

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1. INTRODUCTION

The municipality of Saranda is located in the South of Albania, has an area of 59 square kilometers, with a population of 50,680 inhabitants, and about 50% of its population is in emigration. Saranda is an important tourist center in Albania and represents one of the richest ecosystems. The city of Saranda is known as the pearl of Albanian tourism, a popular tourist destination with special beauties, a rare coast about 8 kilometers long, Mediterranean vegetation, and the characteristic stone slabs of millions of years old (natural monuments). Saranda by the sea, further Ksamil, the jewel of Albania with crystal blue waters, virgin islands, dream beaches, water sports, and the 2500-year-old ancient city of Butrint, which will fascinate you with its beauty and tranquility. All these create a unique tourist area that makes it an amazing tourist destination and much coveted by local and foreign tourists. The traditional industries in this area are fishing, tourism, and services, while the surrounding areas develop agriculture, horticulture, and horticulture. Until the 1990s, constructions were made respecting the architecture of the city and the proper distance from the seashore. The city had a Green Crown of about 400 ha created under the auspices of the Forestry Enterprise from artificial afforestation that began from 1968 to 1990, creating a forest that surrounded the city. After the 90s, during the transition period, in the name of urban development, the Green Crown of the city and the coast were seriously damaged; one to 12-story apartments were built without criteria, up to touch the edge of the sea. Although the government has made some efforts to improve the situation, today, chaotic buildings dominate and the city lacks green environments. The rapid and uncontrolled development of facilities in this area with tourist potential also happened due to the fact that the development of tourism served as a "savior" of the local society or as a "port in a storm" by attracting the excess workforce prepared by the system of centralized Albanian economy and trying to find the best possible direction in the conditions of instability that has characterized the economic and social development of our country in the long period of transition. The tourism sector, in recent years, has increased the weight of its contribution to the area's economy, both in terms of value and employment, so it should be considered the main priority for economic and social development. Today, tourism is identified as one of the sectors with the highest potential for economic growth, simultaneously stimulating the activities of other related industries. Figure 1 shows the increase in the number of tourists in the Municipality of Saranda for 2004 - 2022. After the year 2020, with the relief of the Covid-19 pandemic, the increase in the number of tourists began, and in 2022 their number exceeded and reached the highest level in 2019.

Figure 1. Number of tourists in Saranda according to years (in thousands)
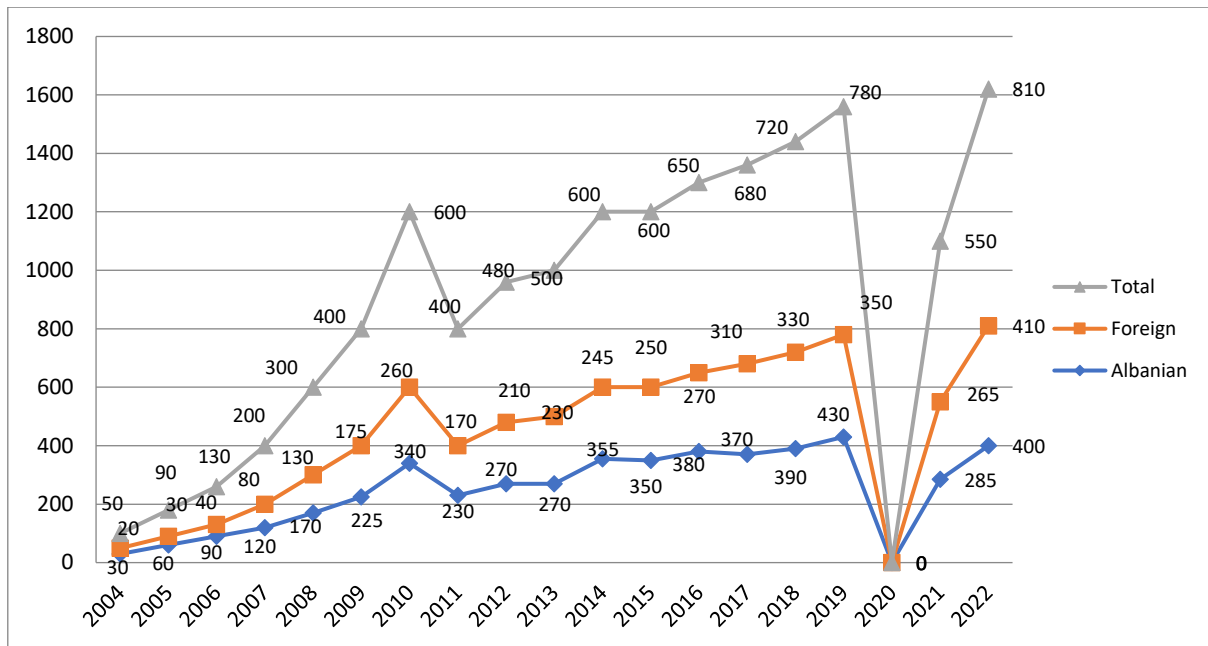
Source: Municipality of Saranda

The development of tourism in the Municipality of Saranda, mainly as a pronounced seasonality characterizes mass tourism. The data in Figure 2 clearly express the seasonal nature of tourism in the study area. The number of foreigners who enter Saranda only from the seaport, compared to the month of March this year, is 5 times higher in the month of April, 15 times higher in the month of May, 32 times higher in the month of June, 60 times higher highest in July and 71.5 times higher in August. In September, this indicator decreases to 46, in October it is 18 and in November, 1.3 These data best express the pronounced seasonality of tourism in the study area. From the data of the Municipality of Saranda, 3800 businesses in the field of tourism are evident which, as a result of seasonality, in the period January - May and September - December operate far below their capacity, while in the period June - August, 3 months a year, they face congestion. In this quarterly period, the main word of all activities in Saranda is tourism, and all other activities, such as agriculture, livestock, fishing, transport, culture, security, etc. are almost a function of the tourist industry.

Figure 2. Entry to the Port of Saranda in 2022
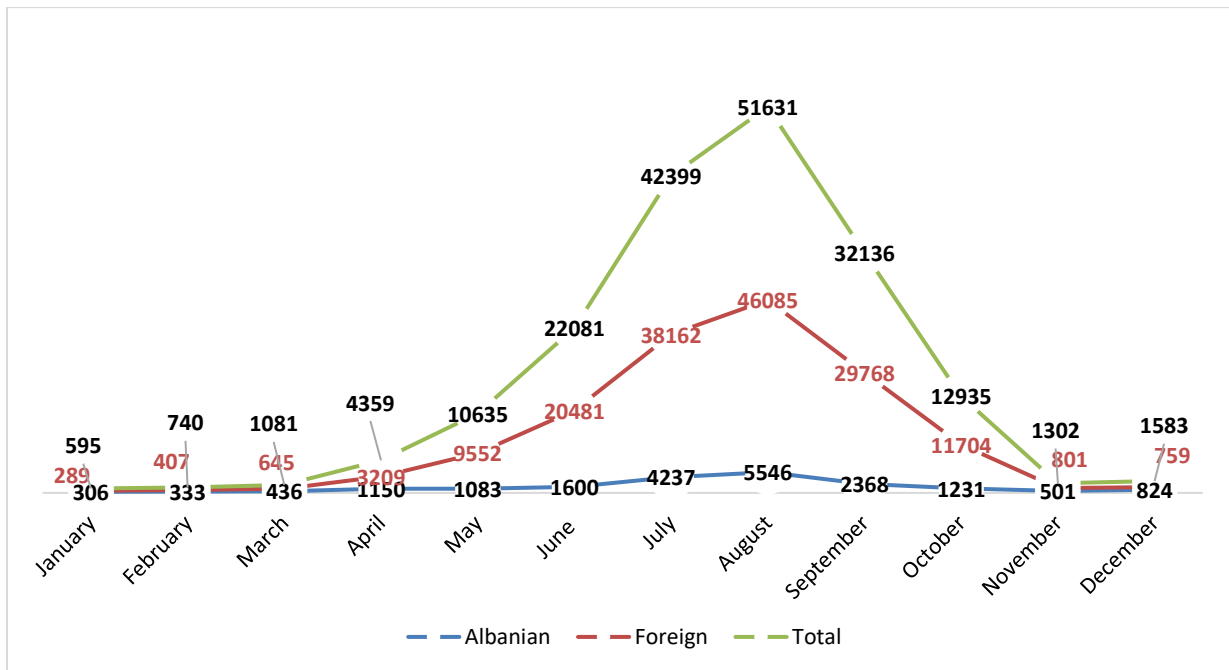
Source: Port of Saranda

The local government has identified 880 accommodation structures with around 25,000 beds, which only work at 100% of their capacity in July and August, while the demand is higher than the supply. As a result, we can say that this tourist destination faces over-tourism and under-tourism. As a result of the increase in the number of tourists in the destination and the pronounced seasonality of tourism in this area, economic and natural resources are under pressure. In addition to the economic benefits, the area's residents face the negative effects of infrastructure overload and the environment in general.

2. THEORETICAL REVIEW

In the literature, the results of studies in the field of tourism have suggested that community support for tourism development is essential for the successful operation and sustainability of tourism (Jurowski et al., 1997). This is because tourism relies heavily on the goodwill of the local community, so understanding community response to tourism development is essential in ensuring community support for tourism development. Sustainable community development is a theory and practice that "recognizes the interrelated nature of the economic, environmental, and social aspects of communities" (Beckett, 2006, p. 1). Researchers have proven that, unlike the economic impacts of tourism, the social and cultural impacts of tourism development can negatively affect residents' perceptions. Also, it has been established that if residents positively perceive the impacts of tourism in terms of physical and environmental consequences, they will support its further development. For this reason, investigating the perceived impacts of tourism development is critical to examining community support or lack of support for sustainable tourism development. Nowadays, it is important to clarify the residents' perception of the impact of tourism development in their residence. The main product of tourism is not something
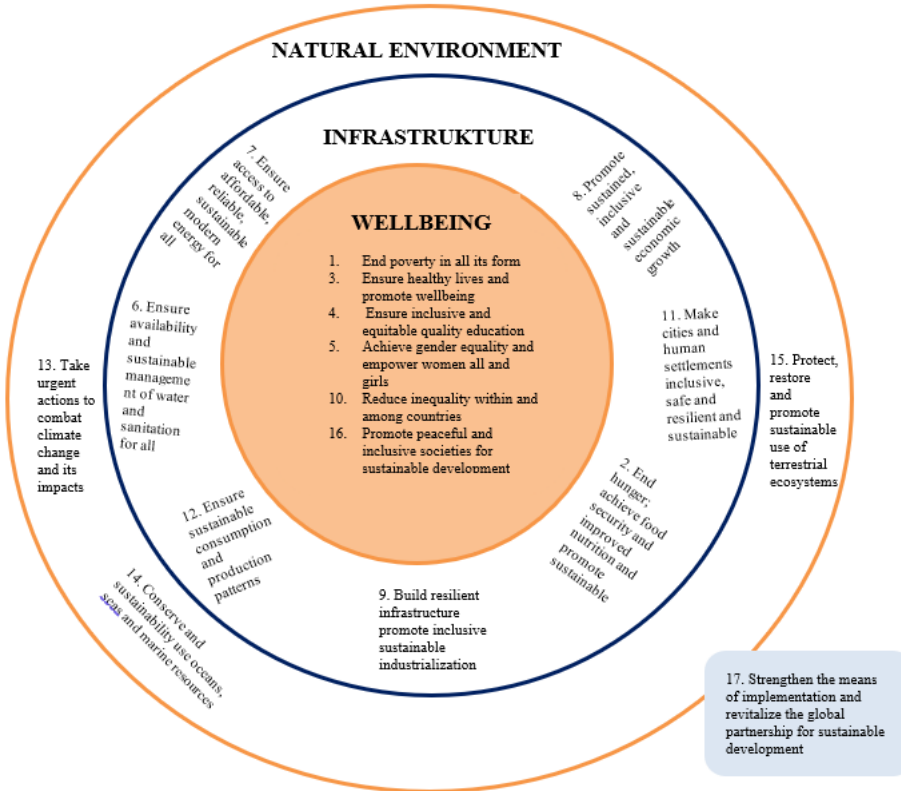
that is produced by industry. The product is often the heritage and wealth of the community that serves as a tourist destination. The business activity of the tourism industry is to promote the "marketable" or attractive aspects of the community. Suppose business activities degrade the heritage and wealth of the community. In that case, the community suffers more directly than the consumer, who may return to his community without responsibility or awareness of the impact of his tourism activity. Residents are part of the tourist activity and can contribute to the (un)success of the tourist experience lived in a destination. The intervention of many foreigners uninformed about the local social system can undermine the community's existing social relations and values. Residents are one of the tourism actors most affected, in their daily lives, by tourism development. Residents' attitudes and behaviors towards visitors influence their decision to return (or not) to the destination. According to sustainable development objectives, for the sustainable development of a thriving destination is necessary to involve the community in the planning, management, and monitoring of tourism activity. Sustainable community planning is widely accepted, but it "is still not appreciated widely enough" (Hodge and Haltrecht, 2009, p. 6). The goals sought by the community and sustainable tourism efforts are similar, economic, social, and environmental for present and future generations. As the figure shows, all goals contribute to improving community well-being. Well-being is at the heart of all sustainable development objectives, which are linked to 'people-centered' goals that aim to improve their well-being directly. They represent a well-established objective for governments; around this objective all resources, institutions, policies, and strategies of central and local government for development are focused. Governance refers to the institutions, mechanisms, or processes backed by political power and/or authority that allow an activity or set of activities to be controlled, influenced, or directed in the collective interest (Baker et al., 2005). Governance includes responsibility for resources, control, influence or direction of activities, and ensuring laws, regulations, and agreements in the collective interest. The social contract between the state and society for good governance makes individuals a key component of accountability, transparency, inclusion, and governance decision-making. The Sustainable Development Goals represent a more ambitious effort to support well-being and promote peaceful and inclusive societies, especially for those countries where governance performance is lower, and governments have less experience.

The objectives of the second level, Infrastructure, go beyond individuals and communities and address many of the core basic welfare functions of government institutions. Perceived modern society within and sometimes beyond nation-states. These objectives aim to contribute to increasing well-being by reducing the intensity of resource use, pollution, and negative impacts on the environment.

The outer level, Environment, groups those goals mainly related to managing global resources and biophysical systems that support sustainable development and are greatly affected by human activities, such as biodiversity, and climate change. These goals require international

cooperation, and objective 17 requires the revitalization of the global partnership for sustainable development and is left out of the three levels of the SDGs.

Figure 2. SDGs as proposed in the *Report of the Open Working Group of the General Assembly on Sustainable Development Goals* according to three levels[1]

2.1. Impacts of Tourism Development

The local impacts of the tourism industry are varied and often unique. No structure of any global industry works like tourism where the consumer comes to the product; it is mostly the product delivered to the consumer in his community. This structural change produces unique social effects on the local community. The main development of tourism is not something that is produced by industry. The product is mostly the heritage and wealth of the community that serves as a tourist destination. The business activity of the tourism industry is to promote the "marketable" or attractive aspects of the community, transport non-residents to the community, manage hospitality to guide and activities of visitors, and provide them with services and goods to purchase during their stay. Suppose business activities degrade the heritage and natural assets of the community. In that case, the community suffers more directly than the consumer, who may return to his community without responsibility or awareness of the impact of his tourism

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[1] Thinking Beyond Sectors for Sustainable Development, Chapter Author(s): Jeff Waage, Christopher Yap, Sarah Bell, Caren Levy, Georgina Mace, Tom Pegram, Elaine Unterhalter, Niheer Dasandi, David Hudson, Richard Kock, Susannah H. Mayhew, Colin Marx and Nigel Poole
Book Editor(s): Jeff Waage and Christopher Yap, Published by: Ubiquity Press, https://www.jstor.org/stable/j.ctv3t5rcm.17

activity. These changes, which are related to tourism, are especially harmful in the case where residents support their livelihood mainly in tourism, as can be said for the area of Saranda and Ksamil. Community support for tourism development is essential for the successful operation and sustainability of tourism. This is because tourism relies heavily on the goodwill of the local community, so understanding community response to tourism development is essential in ensuring community support for tourism development. In the 1960s, the study of the impacts of tourism focused mainly on the perception of the economic results of this industry and was measured by the impact on the Gross General Product. In fact, tourism is a powerful source of the economic effects on the community. The creation of jobs or the reduction of unemployment has been discussed as the most tangible good of tourism development.

Economic growth, income distribution to the host community and government, prices of goods and services, land and housing costs, improvement of community living standards, living costs, infrastructure development, etc. are other examples of tourism development's economic impacts. Researchers have also found that the development of tourism improves local public services, changes traditional culture, and also affects the protection of the identity of local culture (Liu, 2010). Then, the negative social and cultural impacts of tourism were also discussed, such as tourism has in itself the possibility of changing the culture and worsening various factors of the inhabitants' lives, such as prostitution, crime, emigration, and the exploitation of children for work. Environmental pollution, traffic jams, and noise are examples of adverse environmental impacts of tourism development. Physical and environmental impacts are closely related to the development of natural, cultural, and historical resources, the development of tourism facilities, the protection of historical and cultural resources, the development of opportunities for recreation and entertainment for the local population and visitors, as well as more roads public goods and facilities. Also, it has been established that if residents positively perceive the impacts of tourism in terms of physical and environmental consequences, they will support its further development. For this reason, an investigation of the perceived impacts of tourism development is critical to ensure the involvement and active role of the community in the development of sustainable tourism. Due to its geographical position, tourism development in the study area has double impacts on land and sea. The tourism industry in Saranda has grown rapidly generating significant amounts of income. The development of tourism results in the expansion of the construction of hotels without criteria, without respecting the criteria for surfaces and public spaces, and all this looks like a chaotic development. The growth of mass tourism has created positive impacts on the economy. However, it has also affected the natural environment, which mostly has negative impacts. In the natural aspect, the development of tourism has created pollution of the environment, and waters, damage to the landscape, damage to the land, and damage to ecosystems. As in other countries, these show that our natural resources are being destroyed by human use. As one of the biggest economic providers in the Saranda area, the tourism industry performs poorly compared to its tremendous opportunities. The economic potential of outstanding landscape quality has not yet been fully realized. The impact of these factors on the local economy has profound implications for

residents. The area suffers a steady loss of its young population due to the high cost of living and lack of infrastructure opportunities. Also, there is a reluctance of immigrants to invest and work in their country.

2.2. Community Participation in the Planning and Development of Sustainable Tourism

Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources that affect them (World Bank, 1995). The community approach to tourism planning emerged when it became apparent and clearly understood that tourism had irreversible and harmful effects on the communities and their cultures exposed to tourism and that alternative planning and management were necessary to develop societal guidelines. more acceptable for tourism development (Murphy, 1985). According to some authors, mass tourism does not generate the development of local communities. Moreover, it has many consequences that bring about their devitalization and affirm that community-based tourism can be a strategy to promote the development of the local community and oppose the process of devitalization and impoverishment that characterizes some countries oriented by mass tourism. The community approach, which is essentially a form of 'bottom-up' planning, emphasizes community development rather than community development (Hall, 1998). For the tourism sector, sustainable development has been called a possible solution to the environmental and social degradation of the industry's resources because tourism is an industry that has its resources dependent on the gift of nature and the heritage of society (Cooper, 1995; Murphy, 1994). But with community sustainability, tourism development can be expected to be sustainable. For this reason, the concept of community involvement in tourism development has moved closer to the center of the sustainability debate. Community-based tourism development is a strategy tourism planners use to mobilize communities to participate in appropriate tourism development. The goal is the socio-economic empowerment and an added value of the tourist experience for local and foreign visitors to create a culture of inclusion in the industry, where communities participate and benefit from the wealth of the industry by removing a perception of long on tourism as an exploiter of wealth, where only the rich can benefit. These economic benefits incentivize participants to conserve the natural and cultural resources upon which income generation depends. The relationship of the industry with the tourism products developed from the natural and cultural resources of the community is not direct; on the contrary, it is through the mediation of the community. This is to ensure that community aspirations are not overlooked and unrelated to the interests of the tourism industry. Continuing with the above line of thinking, community-based tourism considers environmental, social, and cultural sustainability, is managed by the community, and is owned by the community and for the community, with the aim of visitors learning about the community and the local way of life. Based on the above, this study will investigate the perceptions, views, and attitudes of the Saranda community about tourism and its development in a sustainable manner as valuable information for its planning.

3. METHODOLOGY AND DATA

3.1. Research Method

Based on the literature review and the research objectives, we have formulated questions for the study as follows 1) How do residents evaluate tourism development in their place of residence? 2) Are the residents interested in planning and developing tourism in their area? 3) what is the perception of the residents about the impact of tourism development in their area? The objectives of the study aim to test empirically: 1) to know the assessment of residents for the tourism development, 2) to evidence how much residents know the development plans and how they think about participating in this process, and 3) to evidence the perception of the residents about the impact of tourism development in their area. Residents in the study area are the target population with the desired information to answer the research objectives. The selection method is based on the concept of random selection; it is a probabilistic selection that gives each element of the population an equal probability of being part of the selection and will be carried out through a mechanical process, so the elements presented in the sample will be chosen at random. Random sampling complies with the law of statistical regularity, according to which, if a selected sample is probabilistic on average, then this sample will have the same characteristics as the target population to which it belongs and is considered the best technique to select a representative sample. It has superiority over other methods because the obtained sample is safe in terms of probability since we can calculate the estimation errors and the significance of the obtained results; also, this method carries the possibility of generalization from statistical transitions. Therefore it guarantees representativeness and generalization of the results. The choice must be optimal; therefore, in determining its size, we have considered the requirements of efficiency, representation, reliability, and flexibility. The size of the choice depends on the desired precision for the generalization of the search results, which is usually 0.05 and the acceptable confidence level for estimation is 0.95.

In this study, we will use the qualitative interviewing technique. The individual qualitative approach is concerned with researching people's motivations and attitudes and is superior to other methods because it is flexible, practical, and easy to organize. Moreover, it is assumed that they create the possibility to get more accurate and deeper information.

Data collection will be done through structured questionnaires, thus providing primary data. Through the interview, we aim to highlight the attitudes and perceptions of the participants involved in the election to find out how they value the development of tourism in their area and their perception of the impact on their life of development. This method gives the respondent enough time to give well-thought-out answers independent of the subjective judgments of the interviewer; there are several opportunities to reach the respondents and create the opportunity to cope with a large volume of choices, so the results may be more reliable. The use of the interview is based on the assumption that the participants' viewpoints in the survey are clear

and that these viewpoints or their opinions are important and influence the provision of qualitative data appropriate for this research.

This study employed the Linkert scale as a measurement scale for measuring residents' attitudes about their environment. It used individual qualitative techniques for the data collection on the motivations and attitudes of the residents and it distributed 450 questionnaires. The data collected using the survey is analyzed using SPSS. Finally, the results prove the objectives that are presented.

3.2. Research Design

Based on the literature, the theoretical framework of this study consists of the measurement and analysis of two factors: the assessment of residents for the development of tourism and the perception of the residents about the impact of tourism development in their area. Measuring the perception of residents of the impacts of tourism development will be done through the Likert scale with five levels of agreement for the statements (instruments) as in Table 1. This measurement scale consists of 12 instruments that reflect the residents' perception of the economic, social-cultural, and environmental impacts of tourism development. The Likert scale is more expressive for analysis, it respects the principles of calculating the mean that requires the use of interval scales, and it is considered a technique with good reliability, good validity, very fast, and very simple. The mark on this scale indicates a degree of acceptance or rejection of the submission given in it. To ensure the validity and reliability of the questionnaire, this research consulted the mature scales in foreign references in the operational definition and measurement of the variables like motivations and attitudes of the people. For their measurement, the Likert scale was used. Note that this scale indicates a degree of acceptance or rejection of the submission given in it. In this research, a survey is conducted to get the data required for the study. The preliminary questionnaire was examined carefully by specialists in the field, and revisions were made according to the feedback. Through the process of specialists probing case interviews and pre-test, the final questionnaire includes twelve items for measuring the perception of the residents of tourism development, with a 5-point Likert scale (1 = I do not agree, 5 = I agree very much) and measuring the perception of the impacts of tourism development by residents through the Likert scale with five levels of agreement for the statements as in the table below.

**Table 1.** The measuring scale perception of the impacts of tourism development by residents

No.	The impacts of tourism development.	

67

1	Tourism has created more income for the residents.	T_1
2	Tourism has created more jobs for residents.	T_2
3	Our standard of living has increased considerably due to the development of tourism.	T_3
4	Tourism has attracted investments that have a positive impact on the community.	T_4
5	Tourism has influenced the increase in prices in Saranda and Ksamil.	T_5
6	Tourism has encouraged various cultural activities for the residents as well.	T_6
7	Tourism has caused residents to suffer from noise, traffic jams, and environmental pollution.	T_7
8	Tourism has increased environmental pollution.	T_8
9	Construction near the sea has damaged the coast.	T_9
10	Tourism has enriched our traditional culture.	T_{10}
11	Tourism has damaged the special qualities of the natural landscape.	T_{11}
12	The development of tourism has not been accompanied by sufficient measures for the protection of the environment.	T_{12}

The mesaurment scale : 1 = I do not agree at all, 2 = I do not agree, 3 = Neutral, 4 = I agree, 5 = I agree very much

Source: Authors

Figure 3. Evaluation path diagram of evaluation of the residents for the impact of tourism development
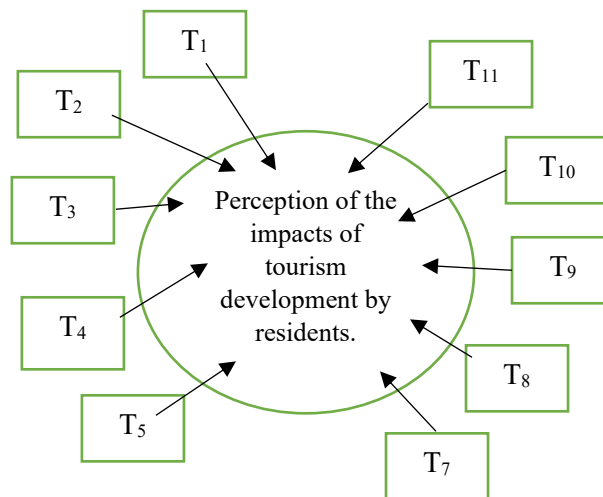
Source: Authors

4. RESULTS AND DISCUSSION

4.1. Socio-Demographic Characteristics of the Sample

Table 2 summarises the profile of respondents. The results indicate that 20 % of respondents are 18-30 years old, 51 % are 31-50 years old and 29 % are 51 and more years old. Respondents were from all categories of age, gender, education level, and employment status.

Table 2. Profile of the respondent

No	Age	%	Gender	%	Education	%
1	18-30 years old	20	F	54.8	Primary education	13
2	31-40 years old	18	M	45.2	Secondary education	79
3	41-50 years old	33		44.8	Higher education	8
4	51-60 years old	25				
5	Over 60 years old	4				

Source: From the questionnaire data

Table 3. Frequency of the residents' responses to the question

No.	*How do you assess the development of tourism in your area?*	**Frequency**	**Percentage**
1	Chaotic development1.	189	45
2	Appropriate development	33	7.8
3	Harmful development	37	7.9
4	Development that serves the community	161	38.3

Source: From the questionnaire data

According to the data in Table 2, 52.9 percent of the interviewed residents evaluate tourism development in their area as chaotic and harmful. To clarify if the residents of Saranda are interested in the process of planning and developing tourism in their area, the analysis of the data shows (Table 4) that 90.2 percent of the residents interviewed say that the development of tourism in Sarande needs the participation of the residents in the planning process and 83.9 percent say that they would like to give their opinion on this process (Table 5).

Table 4. Frequency of residents'responses per the question

No.	*The development of tourism in Saranda needs the participation of residents in the planning process.*	**Frequency**	**Percentage**
1	I strongly disagree	5	1.2
2	I disagree	7	1.6
3	I neither agree nor disagree	30	7
4	I agree	147	34.7
5	I strongly agree	235	55.5

Source: From the questionnaire data

Table 5. Frequency of residents'responses per the question

No.	*I would like to give my opinion on the development of tourism, but l am not given the opportunity and l do not know how to help in the planning of tourism in my city.*	**Frequency**	**Percentage**
1	I strongly disagree	17	4
2	I disagree	24	5.7
3	I neither agree nor disagree	27	6.4
4	I agree	135	32.2
5	I strongly agree	217	51.7

Source: From the questionnaire data

To measure the perception of residents of the impacts of tourism development interviewees were asked to answer each statement/instrument measured through a Likert scale, with 5 levels of agreement from 1 ``I do not agree at all'' to 5 ``I strongly agree''.

The results of the descriptive statistics analysis for the measurement scale of the perception of tourism impacts are presented in Table 6. This measurement scale consists of 12 instruments that reflect the residents' perception of the economic, social-cultural, and environmental impacts of tourism development.

Table 6. Descriptive analysis of the perception of the impacts of tourism development by residents

No.	The impacts of tourism development.	M (Mean)	S (Standard Deviation)
1	Tourism has created more income for the residents.	3.94	0.969
2	Tourism has created more jobs for residents.	3.87	1.029
3	Our standard of living has increased considerably due to the development of tourism.	3.46	1.137
4	Tourism has attracted investments that have a positive impact on the community.	3.57	1.164
5	Tourism has influenced the increase in prices in Saranda.	4.42	0.985
6	Tourism has encouraged various cultural activities for the residents as well.	3.97	1.071
7	Tourism has caused residents to suffer from noise, traffic jams, and environmental pollution.	4.21	1.141
8	Tourism has increased environmental pollution.	3.95	1.249
9	Construction near the sea has damaged the coast.	4.38	1.057
10	Tourism has enriched our traditional culture.	3.62	1.093
11	Tourism has damaged the special qualities of the natural landscape.	4.04	1.177
12	The development of tourism has not been accompanied by sufficient measures for the protection of the environment.	4.20	1.082

Source: Data of the questionnaire processing by SSPS

4.2. The Reliability of the Measurement Scale

Reliability is essential in any measurement scale and shows the homogeneity of the instruments that comprise it. The reliability of this scale was explained by Cronbach's Alfa (Cronbach, 1951). Cronbach's alpha is a useful statistic for assessing the internal consistency of a questionnaire. Cronbach Alpha is a measure of the correlation between observed scores and true scores. Cronbach Alpha determines the internal consistency or average correlation of instruments in a measurement scale to assess its reliability. It is recommended that if the measurement scale has a Cronbach's alpha coefficient greater than 0.70 it is acceptable as a scale with an internal consistency that serves further analysis. A coefficient of Cronbach's alpha less than 0.70 means that the reliability is less. Initially, to examine the reliability of the measurement scale, Cronbach's alpha coefficient was calculated in SPSS and the data are presented in Table 7.

Table 7. Reliability of measurement variables (Cronbach's Alpha)

The measurement scale	The number of indicators	Cronbach's Alpha (a)
The impact of tourism development	12	0.730

Source: Data processing by SSPS

As can be seen from the presented data in the Table above, Cronbach's Alpha = 0.730 > 0.7 and we conclude that the measurement scale for the impact of tourism development is reliable and suitable for data analysis.

Based on the average scores of each question, it can be seen that the respondents tend to agree that tourism has created more income (M=3.94 SD=0.969), that tourism has created more jobs (M=3.87 SD=1.029), that tourism has influenced the increase in the standard of living (M=3.46, SD=1.137), that tourism has attracted more investments (M=3.57, SD=1.164), that tourism has increased cultural activities (M=3.97, SD=1.071), that tourism has enriched traditional culture (M=3.92, SD=1.093). On the other hand, the descriptive analysis data show a higher degree of agreement for the statements related to the measurement of the perception of the negative impacts of tourism, so the perception that tourism has influenced the increase in prices has an average of M=4.42, SD=0.985, tourism has caused residents to suffer from pollution, noise and other problems (M=4.21, SD=1.141), constructions near the sea have damaged the coast (M=4.38, SD=1.057), tourism has caused environmental pollution to increase (M =3.95 SD=1,249), tourism has damaged the unique qualities of the natural landscape (M=4.04, SD=1.177), that the development of tourism has not been accompanied by sufficient measures to protect the environment (M=4.2, SD=1.082).

The evaluation of empirical evidence reveals that the development of tourism is perceived by residents not only in terms of economic benefits but also of social and cultural benefits such as the increase in the standard of living, the increase in cultural activities, and the enrichment of the cultural tradition of the area. However, it has been asserted by the residents that tourism in the Saranda area has also caused negative impacts such as environmental pollution, damage to the coast, damage to the natural landscape, and increase in prices and that this development has not been accompanied by the necessary measures to protect the environment. This perception, measured through a Likert scale with 12 indicators, is also confirmed by the data resulting from the interviewees' answers to the question - How do you evaluate the development of tourism in your area? - the results of which are reflected in the following slide- the Saranda area residents view the tourism industry as chaotic. Therefore, this study helps us better understand the community's attitude and appreciation for participation in the planning and development process.

5. CONCLUSIONS

The findings of this study contribute to clarifying some of the most critical issues of the development of the tourist industry in the study area. So, the picture of the development of the tourist industry in this area is so visible and the problem is so clear for the residents that they express that they are worried about the situation and the community finds the solution in sustainable tourism development. These results show that the perception of tourism impacts can be a critical determinant of supporting the development of sustainable tourism in the Saranda

area. This conclusion supports the general argument that residents are an integral part of the tourist destination, and their values and perceptions can be valued and incorporated into the destination management process. Central and local government institutions to improve policies and strategies for the successful management of the tourism industry in search of the right balance between economic growth and the protection of economic resources for today and future generations by emphasizing the good use of community resources. The political, economic, and social situation in our country, particularly in the study area, is currently estimated to have exceeded the transition, overcame the decline caused by the Covid19 pandemic, and now it is at the limit of sustainable growth. The adaptation of the legal framework towards sustainable development policies and the strengthening of the competencies and institutional capacities of the local government is creating the right ground to enable the participation of residents in the development process. Achieving sustainable growth requires not only the mobilization of physical and financial resources for implementing development policies and strategies but also the mobilization of human resources by participating in this development and making the process more participatory and inclusive. Likewise, from a demographic point of view, a certain stability can be observed in the study area regarding immigration and population displacements from rural areas toward Saranda as an urban favorite area. In this sense, even the residents as a community are crystallizing their features and goals, they are evidencing better than before their common interests, and what is most important, they are reacting to the problems caused by the tourist development. They want to influence the process of tourism planning and management. This shows that it is moving in the direction of creating the social capacities of the community necessary to become part of the development process in the study area.

This study helps gauge the evaluation of the residents of the study area for the development of the most important industry in the economy of this area. In addition to providing a practical contribution to the planning and development of sustainable development in the research region, the study's findings help us better understand how the community evaluates tourism development and how to support it. It also directs scientific research and other studies in measuring and analyzing additional aspects that influence how economic resources are used in the study area. This study is geographically limited; the collected data are only for the residents of the Saranda area. Residents in other areas may have different perceptions, attitudes, and behaviors regarding tourism development. This study is also limited in terms of time frame. Other studies in the future should consider these limitations.

REFERENCES

Baker, A., Hudson, D., & Woodward, R. (2005). *Governing Financial Globalization*. Routledge.

Beckett, H., & Ling, C. (2007, January 22). *Sustainable Community Planning: Comox Valley*. CRC Research. https://www.crcresearch.org/community-research-connections/crc-case-studies/sustainable-community-planning-comox-valley?page=1

BedZED. (2009). *BedZED seven years on; The impact of the UK's best known eco-village and its residents*. https://regenerativedesign.world/wp-content/uploads/2022/05/BedZED-seven-years-1.pdf

Cooper, J. L. (1995). Cooperative learning and critical thinking. *Teaching of Psychology*, *22*(1), 7-9. https://doi.org/10.1207/s15328023top2201_2

Hawcroft, L. J., & Milfont, T. L. (2010). The use (and abuse) of the new environmental paradigm scale over the last 30 years: A meta-analysis. *Journal of Environmental Psychology*, *30*(2), 143-158. https://doi.org/10.1016/j.jenvp.2009.10.003

Honey, M. (1999). Ecotourism and Sustainable Development: Who Owns Paradise? In *Google Books*. Island Press. https://books.google.al/books/about/Ecotourism_and_Sustainable_Development.html?id=Qm_RonNzC7sC&redir_esc=y

Jurowski, C., Uysal, M., & Williams, D. R. (1997). A theoretical analysis of host community resident reactions to tourism. *Journal of Travel Research*, *36*(2), 3-11. https://doi.org/10.1177/004728759703600202

Liu, C.-Z. (2010). Rural Development and Rural Tourism in Taiwan. *Liu / Asian Journal of Arts and Sciences*, *1*(2), 211-227.

Murphy, P. (2013). *Tourism: A Community Approach (RLE Tourism)*. Routledge. https://doi.org/10.4324/9780203068533

Murphy, R. (1994). The sociological construction of science without nature. *Sociology*, *28*(4), 957-974. https://doi.org/10.1177/0038038594028004010

Pearce, D. (1992). Green economics. *Environmental Values*, *1*(1), 3–13. https://doi.org/10.3197/096327192776680179

Rapresentants of Saranda Harbour. (2022).

Representants of the Municipality of Saranda. (2022).

Resnick, L., & Williams Hall, M. (1998, October 1). *Learning Organizations for Sustainable Education Reform*. American Academy of Arts & Sciences. https://www.amacad.org/publication/learning-organizations-sustainable-education-reformPages 11-14

UNWTO. (2017). Tourism and the Sustainable Development Goals – Journey to 2030, Highlights. *UNWTO E- LIBRARY*. https://doi.org/10.18111/9789284419340

W. M. Adams Professor of Conservation, & Development. (2006). *The Future of Sustainability Re-thinking Environment and Development in the Twenty-first Century*. http://cmsdata.iucn.org/downloads/iucn_future_of_sustanability.pdf

Waage, J. K., & Yap, C. (2015). *Thinking beyond sectors for sustainable development*. Ubiquity Press.

Waage, J., Yap, C., Bell, S., Levy, C., Mace, G., Pegram, T., Unterhalter, E., Dasandi, N., Hudson, D., Kock, R., Mayhew, S. H., Marx, C., & Poole, N. (2015). *Governing Sustainable Development Goals: interactions, infrastructures, and institutions* (J. Waage & C. Yap, Eds.). JSTOR; Ubiquity Press. https://www.jstor.org/stable/j.ctv3t5rcm.17

World Bank. (2016). *World Bank Group - International Development, Poverty, & Sustainability*. World Bank. https://www.worldbank.org/

BRAND EXPERIENCE, BRAND COOLNESS, AND BRAND EQUITY: A CASE OF BALI, INDONESIA

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Abstract

This research aims to examine the relationship between brand experience, brand coolness, and brand equity in the context of a tourist destination. The surveys were used to collect data from 300 domestic tourists visiting Bali, Indonesia. Path analysis was used to evaluate the collected data. According to the findings of the research, brand experience has an influence on brand coolness. Furthermore, brand experience directly and indirectly affects brand equity through brand coolness.

Keywords: brand experience, brand coolness, brand equity, destination marketing, city branding

1. INTRODUCTION

Bali is one of Indonesia's 38 provinces and a popular tourist destination due to its beautiful scenery and low crime rate. Its entire land area is 5,636.66 square kilometers, or 0.29 percent of Indonesia's total land area (Antara & Sumarniasih, 2017). Since the 1920s, the island of Bali has been one of the most popular vacation spots in the world. This is because of the abundance of beautiful landscapes and culturally diverse artistic creations that are the province's pride and joy (Antara & Sumarniasih, 2017). One of tourism destination management's fundamental techniques is creating and developing a "brand" (Ashton, 2014). Branding can be applied to products, businesses, and tourism (Bianchi & Milberg, 2016; Boo, 2009). Nowadays, brand destination management has become crucial (Pike & Page, 2014). With their concrete and intangible characteristics, tourist destinations integrate many stakeholders and mix unique resources (Prebensen, 2007). To successfully manage a destination brand, marketers must satisfy the desires and requirements of destination consumers" (Rather & Najar & Jaziri, 2020). Therefore, adopting and verifying the brand experience construct scale in tourist contexts is essential. Positive or negative brand experiences may be either fleeting or long-lasting. It may favorably affect customer happiness, brand loyalty, and brand trust (Zarantonello & Schmitt, 2013). Brand coolness is a significant differentiation and competitive advantage among competing brands (Rahman, 2013). It has been studied that brand coolness positively impacts customers' attitudes and happiness toward a brand and their desire to share (Word of Mouth) and purchase the brand (Warren et al., 2019). Furthermore, Customer-based brand equity is a topic that has lately received various academic and practitioner attention in marketing. (Tong & Hawley, 2009). Not only have studies been conducted on brand equity for goods and services, but also for tourism destinations that combine many products (services) from several providers, they are impacted by various elements, including lodging, food, tourist attractions, tourism policy, etc (Boo et al., 2009; Wang et al., 2017; Konecnik & Gartner, 2007; Pike et al., 2010; Pike & Bianchi & Milberg, 2016). This study examined the interaction between brand experience, brand coolness, and brand equity in a Bali, Indonesia case study.

2. LITERATURE REVIEW

2.1. Brand Experience

Brand experience is a customer's reaction to brand-related stimuli that is 1) sensory, 2) affective, 3) behavioral, and 4) intellectual (Brakus et al., 2009). A favorable experience will have a lasting impact on the consumer, eventually manifesting as "brand loyalty" (Schmitt, 2010). Those with brand devotion will, or will tend to, unconsciously embrace that brand's distinctive vision and identity, further distinguishing it from its rivals. Brand experience is critical for promoting business identity and tempting customers to repurchase, which are crucial to the brand's success and market position (Brakus et al., 2009).

2.2. Brand Coolness

The coolness of a brand is the degree of coolness (or uncoolness) that the brand imparts to its consumers (Gurrieri, 2009). Coolness is a perception of an experience that needs external confirmation (Belk et al., 2010). Additionally, brand coolness refers to the positive and desired characteristics of being imaginative, unique, or different. According to Kock (2021), four factors associated with brand coolness are Authentic, Rebellious, Original, and Vibrant.
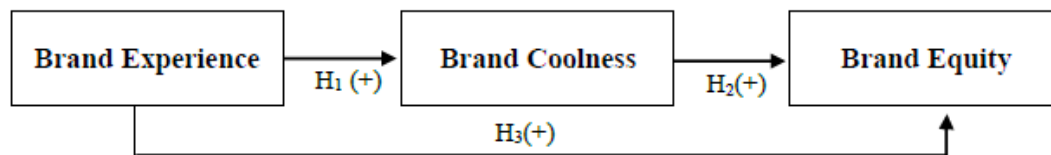
2.3. Brand Equity

Customer-based brand equity is a collection of brand assets and liabilities associated with a brand, its name, and its symbol that increase or decrease the value supplied by a product or service to a company and/or its consumers. Additionally, brand equity significantly emphasizes consumer opinions (Alvarado & Guzman, 2020; Ahmad & Guzmán, 2021). Tourism researchers (Tran et al., 2019; Tran et al., 2020) have determined and implemented four aspects to quantify brand equity: destination brand awareness, image, perceived quality, and loyalty.

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

The study's conceptual framework represents the correlation among brand experience, brand coolness, and brand equity and the research hypotheses. As shown in Figure 1.

Figure 1. A conceptual framework and Hypotheses of the Study

There are 3 research hypotheses for this study, including H1: A positive correlation will exist between Brand Experience and Brand Coolness. H2: A positive correlation will exist between Brand Coolness and Brand Equity. H3: A positive correlation will exist between Brand Experience and Brand Equity.

4. METHODOLOGY

This quantitative research employed field-survey questionnaires to study the correlation among brand experience, brand coolness, and brand equity in the case of Bali, Indonesia. Utilizing a 7-point Likert scale (1 = "strongly disagree" and 7 = "strongly agree"). This research collected data from a comprehensive survey of 300 respondents. The date range for collecting data using the questionnaire is from 15th October - 15th of November 2022 in Bali, Indonesia. Sample selection targeting relevant audiences in line with research aims is adequate and dependable for a representative sample. (Kline, 2016). Participants were asked to complete a 50-item questionnaire, which general tourist information and measures of brand experience, brand coolness, and brand equity.

The questionnaire consists of four sections as follows 1) general tourist information 2) Brand Experience, 3) Brand Coolness, and 4) Brand Equity. Brand Experience was adapted from Brakus (2009) and consisted of 12 questions, Brand Coolness was adapted from (Kock, 2021) and consisted of 12 questions, and Brand Equity was adapted from Tran (2020) and consisted of 14 questions. A 7-point Likert scale was utilized to measure the data, which were chiefly analyzed by adopting path analysis.

5. RESULTS AND DISCUSSION

Statistical methods utilized in the data were descriptive statistics to adopt IBM SPSS v.28 for finding percentage, mean, and standard deviation values as well as skewness, kurtosis, VIF, and tolerance. Finally, the researchers utilized the AMOS v.28 program for path analysis to investigate the framework and hypotheses.

5.1. Preliminary Data Analysis

According to the data, 56.3% of them are female, and 43.7% are male. 58.7% of them are unmarried, and between the ages of 18 and 29, 51.7% of them hold a bachelor's degree, 35.3% of them are business employees, and 52.7% of them belong to a monthly salary range less than Rp. 5.000.001. The result revealed that the most common kind of accommodation for tourists is hotels with a number of 57.4%, and the majority of visitors come from western 52.7%, with 43.7% staying in Bali for 2-3 nights, 27.7% going with their organization's tour group, while 26.3% with family, and 18.0% of them going with their friends. In addition, 41.3% of them visited Bali for the first time.

Table 1. Mean, SD, and Cronbach's Alpha

Construct	No. of items	Mean	SD	Cronbach's Alpha
Brand Experience (BX)	12	5.89	0.66	0.86
Brand Coolness (BC)	12	6.09	0.53	0.85
Brand Equity (BE)	14	6.05	0.55	0.88

Cronbach's Alpha values for the measurement range are between 0.85 and 0.88, higher than 0.70. Hence, this research makes use of measures that are within the allowed range. (Hair et al., 2019). The mean values of questionnaire items ranged are 5.89 and 6.09, and the standard deviation values ranged are 0.53 and 0.66. The data skewness values varied from -1.95 to -0.46. and kurtosis is between 0.39 to 1.97, every value for the items falls between -2 and 2. Therefore, the study's obtained data were regularly distributed (Tabachnick and Fidell, 2019). The correlation matrix tests were in the range of 0.63 to 0.69, VIF ranged from 2.025 to 2.140, and Tolerance ranged from 0.43 to 0.49, Affirming that there was no evidence of a multicollinearity issue (Stevens, 2009).

5.2. Path Analysis

Path analysis findings demonstrated consistency with empirical data in examining the correlation between Brand Experience, Brand Coolness, and Brand Equity. Brand Experience has a positive correlation to Brand Coolness and Brand Equity. In addition, Brand Coolness has a positive correlation to Brand Equity.

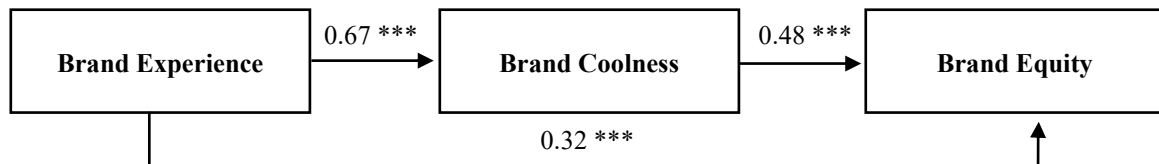**Figure 2.** The results of path analysis on brand experience, brand coolness, and brand equity

Table 2. Summary of the findings of the Study

No	Hypothesis	β	t-value	Result
H1	A positive correlation will exist between brand experience and brand coolness	0.67	15.585 ***	Supported
H2	A positive correlation will exist between brand coolness and brand equity	0.48	9.024 ***	Supported
H3	A positive correlation will exist between brand experience and brand equity.	0.32	5.925 ***	Supported

R^2_{BC} =0.45, R^2_{BE} =0.53
*P < .05, **P < .01, ***P < .001

According to Table 2, It's apparent that hypotheses H1, H2, and H3 are supported. These hypotheses all have statistically significant standard estimates (β = .67, P <.001, β = .48, P <.001 and β = .32, P <.001). The findings supported all of the study's hypotheses, with 45% of the variance in brand coolness and 53% of the variance in brand equity explained.

The result indicates that Brand Experience has a direct influence on Brand coolness, which is consistent with the research of Chen & Chou (2019), Ridhani & Roostika (2020) Later, Brand Experience influences Brand Equity both directly and indirectly through Brand Coolness, which is consistent with Zarantonello and Schmitt (2013), Warren & Campbell (2014), Khamwon & Kularbkaew (2021).

6. CONCLUSION

This research extends the knowledge of the underlying mechanism through which Brand Experience impacts Brand Coolness in the tourism industry, Brand Experience has both direct and indirect effects on Brand Equity through Brand Coolness. According to this research's findings, the result can contribute to advancing city branding and marketing theory. Furthermore, the findings of this study may help the cities improve their brand positioning.

REFERENCES

Ahmad, F., & Guzmán, F. (2021). Brand equity, online reviews, and message trust: The moderating role of persuasion knowledge. *Journal of Product & Brand Management, 30* (4), 549-564.

Alvarado-Karste, D., & Guzmán, F. (2020). The effect of brand identity-cognitive style fit and social influence on consumer-based brand equity. *Journal of Product & Brand Management, 29*(7), 971-984.

Antara, M., & Sumarniasih, M. S. (2017). Role of tourism in economy of Bali and Indonesia. *Journal of Tourism and Hospitality Management, 5*(2), 33-44.

Ashton, A. S. (2014). Tourist destination brand image development-an analysis based on stakeholders' perception: A case study from Southland, New Zealand. *Journal of Vacation Marketing, 20*(3), 279-292.

Belk, R. W., Tian, K., & Paavola, H. (2010). Consuming cool: Behind the unemotional mask. In R. W. Belk (Eds.), *Research in Consumer Behavior* (pp. 183-208). Emerald Group Publishing Limited.

Bianchi, C., & Milberg, S. (2016). Investigating non-visitor's intentions to travel to a long-haul holiday destination. *Journal of Vacation Marketing, 23*(4), 339-354.

Boo, S., Busser, J., & Baloglu, S. (2009). A model of customer-based brand equity and its application to multiple destinations. *Tourism Management, 30*(2), 219-231.

Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty?. *Journal of Marketing, 73*(3), 52-68.

Chen, C.-F., & Chou, S.-H. (2019). Antecedents and consequences of perceived coolness for generation Y in the context of creative tourism - A case study of the pier 2 art center in Taiwan. *Tourism Management, 72*(9), 121-129.

Gurrieri, L. (2009). Cool brands: a discursive identity approach. *Australia and New Zealand Marketing Academy Conference,* Australia, 1-8.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Pearson Education.

Khamwon, A., & Kularbkaew, U. (2021). Brand Coolness, Brand Engagement and Brand Equity of Luxury Brand. *Asian Journal of Research in Business and Management, 3*(3), 1-7.

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Kock, F. (2021). What makes a city cool? Understanding destination coolness and its implications for tourism. *Tourism Management, 86*, 1-16.

Konecnik, M., & Gartner, W. C. (2007). Customer-based brand equity for a destination. *Annals of Tourism Research, 24*(2), 400-421.

Pike, S., & Bianchi, C. (2016). Destination Brand Equity for Australia: Testing a Model of CBBE in Short-Haul and Long-Haul Markets. *Journal of Hospitality & Tourism Research, 40*(1), 114-134.

Pike, S., & Page, S. J. (2014). Destination marketing organizations and destination marketing: A narrative analysis of the literature. *Tourism Management, 41*, 202-227.

Pike, S., Bianchi, C., Kerr, G., Keith, D., & Patti, C. (2010). Consumer-based brand equity for Australia as a long-haul tourism destination in an emerging market. *International Marketing Review, 7*(4), 434-449.

Prebensen, N. K. (2007). Exploring tourists' images of a distant destination. *Tourism Management, 28*(3), 747-756.

Rahman, K. (2013). "Wow! It's cool": The Meaning of coolness in marketing. *Marketing Intelligence & Planning, 31*(6), 620-638.

Rather, A. R., Najar, A. H., & Jaziri, H. (2020). Destination branding in tourism: Insights from social identification, attachment and experience theories. *An International Journal of Tourism and Hospitality Research, 31*(2), 229-243.

Ridhani, M. F., & Roostika, R. (2020). Perceived coolness in the heritage tourism: A case study in PT. Taman Wisata Candi. In 17th International symposium on management (INSYMA 2020). *Advances in Economics, Business and Management Research, 115*, 383-398.

Schmitt, B. (2010). Experience marketing: Concepts, frameworks and consumer insights. *Foundations and Trends® in Marketing, 5*(2), 55-112.

Stevens, J. P. (2009). *Applied Multivariate Statistics for the Social Sciences* (5th ed.). Routledge.

Tabachnik, B. G., & Fidell, F. S. (2019). *Using Multivariate Statistics* (7th ed.). Pearson Education.

Tong, X., & Hawley, J. M. (2009). Measuring customer-based brand equity: Empirical evidence from the sportswear market in China. *Journal of Product & Brand Management, 18*(4), 262-271.

Tran, P. K. T., Nguyen, V. K., & Tran, V. T. (2020). Brand equity and customer satisfaction: A comparative analysis of international and domestic tourists in Vietnam. *Journal of Product & Brand Management, 30(*1), 180-194.

Tran, V. T., Nguyen, N. P., Tran, P. T. K., Tran, T. N., & Huynh, T. T. P. (2019). Brand equity in a tourism destination: A case study of domestic tourists in Hoi an city, Vietnam. *Tourism Review, 74(*3), 704-720.

Wang, T.-L., Tran, P. T. K., & Tran, V. T. (2017). Destination perceived quality, tourist satisfaction and word-of-mouth. *Tourism Review, 72(*4), 392-410.

Warren, C., & Campbell, M. C. (2014). What makes things cool? How autonomy influences perceived coolness. *Journal of Consumer Research, 41*(2), 543-563.

Warren, C., Batra, R., Loureiro, S. M. C., & Bagozzi, R. P. (2019). Brand Coolness. *Journal of Marketing, 83*(5), 36-56.

Zarantonello, L., & Schmitt, B. H. (2013). The impact of event marketing on brand equity: The mediating roles of brand experience and brand attitude. *International Journal of Advertising, 32*(2), 255-280.

THE USE OF TWITTER IN THE CONTEXT OF THE PUBLIC INFORMATION MODEL IN HEALTH SERVICES: A STUDY ON THE ISPARTA CITY HOSPITAL TWITTER ACCOUNT

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Abstract

Developments in communication technologies have caused significant changes in the communication management of institutions. Social media can be counted among the most important developments that created these changes. The tendency of institutions to communicate with their target audiences through social media is becoming more and more common. Today, a large part of the communication of a business with its target audience takes place through digital platforms. Public institutions generally use social media accounts to inform society about their fields of activity. Making information strengthens the harmony of the society with the institution. In this respect, health institutions inform their target audiences about the characteristics and processes of health care in order to provide an effective health service. Therefore, this study aims to reveal whether Isparta City Hospital uses its Twitter account to inform the public. This study includes the analysis of the posts on the Isparta City Hospital Twitter Account in 2022 within the framework of the public information model. The study used content analysis method. Firstly, the paper categorizes the posts of Isparta City Hospital in 2022 in the context of public relations models. Later, it divided the posts into sub-categories within the framework of the public information model. In this context, 99 of the 206 posts on the Isparta City Hospital Twitter Account in 2022 are within the scope of the general information model. Results explored that most of the Twits within the framework of the public information model consist of texts related to illness or healthy life. These are generally corporate news and messages shared on special days and weeks.

Keywords: public-information model, social media, health institution, Twitter, corporate communication, public relations

1. INTRODUCTION

Changes in the world of communication and business and the current social structure cause the understanding of public relations to change (Peltekoğlu, 2016, p.95). Institutions that cannot be isolated from society must maintain communication with their target audiences. In this respect, public relations becomes an important field that provides communication between the institution and the society (Okay and Okay, 2007, p.108). Therefore, historically, public relations practices differ and change. As a result, the basic approaches adopted by public relations are changing. Grunig and Hunt (1984, p.25), who made a classification based on the practices that emerged in the historical flow of public relations, proposed a quadruple model. These are press agency, public information, two-way asymmetrical, and two-way symmetrical models.

The press agency model, which is shaped based on informing the public, is a model that generally gives positive messages about the institution and does not include negative news. (Grunig et al., 1995, p.52). Communication focuses on telling rather than listening. Falsely distorted information can be given to the target audience. Communication is one-way, and no information flow is expected from the other party (Kalender, 2013, p.18). The public disclosure model is the announcement of the activities carried out by institutions or organizations to the public. However, unlike the press agency model, there is an effort to create a positive image (Ilgın and Ulupınar, 2020, pp.502-503). The main purpose of this model is disseminating information without persuasive intent (Okay and Okay, 2007, p.146). The public relations specialist provides information to the target audience openly, transparently, accurately, and impartially. Otherwise, the possibility of spreading negative news about the institution is higher. The basic philosophy of the institution is based on transparency.

The two-way asymmetric model is based on scientific persuasion regarding its main feature. The asymmetric model uses sociological theories and research results to make messages more understandable and clear (Okay and Okay, 2007, p.149). In this model, where persuasion is necessary, the support of the target audience is expected. The target audience is not just a buyer. At the same time, feedback is received from them. However, the institution's functioning is still the same depending on the feedback (Bekman and Soncu, 2020, p.195). On the other hand, the two-way symmetric model contributes more to organizational effectiveness than the asymmetric model.(Grunig et al., 2009, p.163). In this model, where mutual exchange of ideas is essential, there is not only a change in the target audience. When necessary, the institution can also change its policies (Alemdar and Kocaömer, 2020, p.306)**.**

Today, the internet is one of the most important tools used to establish symmetrical communication between the institution and its target audiences. Public relations has important tasks for the target audience to participate in decision-making processes and to reach social networks easily (Durusoy, 2018, p.616). Public relations, which is the eyes and ears of the institution, is responsible for the effective execution of communication on digital platforms in

order to ensure the corporate reputation and create a positive perception about the institution (Koçyiğit, 2017, pp.62-63). Therefore, internet and digital-based activities are becoming more and more common in public relations practices. Mainly social networks can be used effectively and efficiently for communication between the institution and its target audience. In practice, social networks are widely used in corporate communication processes. For example, there is information in the literature that 95 percent of Twitter, 89 percent of Facebook, 83 percent of blogs and 82 percent of LinkedIn are used by public relations units. These data show that institutions and corporate executives care about Twitter. Twitter is gradually increasing its weight as a digital communication tool (Koçyiğit, 2017, p.86).

One of the most significant changes brought by internet technology is the replacement of monologue communication with dialog communication (Arslan, 2021, pp.10-11). Social networks take on a particular function in dialogic communication. According to Zerfass et al. (2009, p.60), the use of social media reveals sincerity, innovation, dialogue, and thoughts. At the same time, social media promotes the business or the public and enables the followers to get information about the institution or a product. It created an environment for the establishment of new relations between the institution and its target audience (Dara, 2011, p.8).

In the early days, social networks were a tool for interpersonal communication. From today's point of view, it assumes deeper functions than the communication between the source and the receiver. One of these functions is the agenda setting feature of social media. However, this feature has a different operation than traditional communication tools. Because social media, which creates its communication traditions, has brought the person from a passive position to an active position. Therefore, social networks are important for reaching health-related messages to people (Çobaner and Köksoy, 2014, p.905; Güregen et al., 2021, p.389). People use the internet intensively as an effective communication tool, especially for many situations such as searching for doctors, questioning diseases, communicating with doctors, following forums (Çobaner and Köksoy, 2014, p.901). In addition to its contribution to the communication between patients and health personnel, it also provides important opportunities for health experts and researchers to share information and ideas among themselves(Çobaner and Köksoy, 2014, p.900).

This study aims to examine Twitter within the framework of the public information model in health institutions' public relations. For this reason, Isparta City Hospital Twitter account was chosen as a case study. In this context, firstly, the posts on the Twitter account of Isparta city hospital were classified according to public relations models. Afterwards, the shares coded within the framework of the public information model were divided into sub-categories and examined.

2. METHOD

The research examines Isparta City Hospital Twitter posts. The universe of the research is the Twitter Shares of health institutions. The sample consists of the posts made on the Isparta City Hospital Twitter account throughout the year 2022. The sampled Twitter shares were analyzed with the content analysis method within the framework of the public relations model. The sampled posts were examined with two code groups in this context. In the first code group, twitter shares are classified within the framework of public relations models. In the second code group, the shares determined in the context of the public information model were divided into sub-themes. The codes in the analysis were defined in the reading of the sharing texts. In order to ensure the reliability of the coding process, the sampled posts were coded twice by the author, with an interval of 15 days.

3. FINDINGS

Isparta City Hospital shared 206 tweets under the username "@spartasehirhas" between January 01 and December 31, 2022 (Table 1). Looking at the distribution by month, there is no regular increase or decrease in shares.

Table 1. Distribution of Shares in 2022 by Months

Month	January	February	March	April	May	June	July	August	September	October	November	December	Total
N	7	4	25	17	26	13	10	9	21	26	30	18	206
%	%3,39	%1,94	%12,13	%8,25	%12,62	%6,31	%4,85	%4,36	%10,19	%12,62	%14,56	%8,73	%100

In the analysis, the shares of Isparta City Hospital between 01 January - 31 December 2022 were classified as 33% "celebration", 44% "announcement", 99% "information," and 30% "" (Table 2). When considered in the context of public relations models, the posts classified as "announcements" were evaluated within the scope of "The Press Agentry / Publicity Model". Because there is one-way communication, and the main purpose is to reach people. There may be an element of exaggeration in designs such as pop-up posters. The posts classified as informative were evaluated within the framework of "The Public-Information Model". Because these posts aim to inform society on issues such as corporate functioning, illness, and education. These cover activities related to the interests of society without any promotional purpose. Posts classified as celebrations were evaluated within the framework of "The Two-Way Symmetrical Model". Because special days and weeks were used to communicate with various segments of the society. At the same time, these posts aim to encourage the followers' participation.

Table 2. Distribution of Shares by Public Relations Models

Models	Frequency
The Press Agentry / Publicity Model	44 / %21,35
The Public-Information Model	99 / %48,05

The Two-Way Symmetrical Model	33 / % 16,01
Other	30 / % 14,56
Total	**206 / % 100**

Content analysis of 99 posts classified with the theme of informing the public was made and determined in four different sub-categories. These categories are defined as corporate functioning, education, important days and diseases, and news. 11 of the posts are related to corporate functioning, 17 of them are about education, 38 of them are about important days and diseases, and 33 of them are about corporate news (Table 3). Therefore, in 2022, Isparta City Hospital informed its target audiences via Twitter within the framework of the above-mentioned titles.

Table 3. Subcategories of Posts coded within the scope of The Public-Information Model

Category	Frequency	Information Topics
Corporate Functioning	11	2022 fiscal year meeting; field exercise for hospital emergency and disaster plan; initiation of paediatric health and diseases specialist; information on patient admission through posts on topics such as inauguration, retirement, etc.; building inspection related to facility safety and operation; supervision of hospital quality standards, oncology council meeting.
Education	17	English for Citizens, Arabic and patient care courses, rational use of medicine, certificate for pregnant school trainees, intensive care nursing, diabetes school, emergency nursing, asthma patients, patient rights, protection of personal data, proper separation of waste, hepatitis, neonatal intensive care processes, drug abuse, program of adult intensive care nursing, CPR and IYT education, zero waste project, personnel communication training.
Information about Important Days and Diseases	38	AIDS, dental treatment, antibiotic use, leukaemia, cerebrovascular diseases, global iodine deficiency, menopause period, mental health, cerebral palsy disease, cardiovascular diseases, Alzheimer, first aid, public health, breast milk, hepatitis, drug use and trafficking, ALS disease, refugees, environment, consumption of milk and dairy products, MS disease, intestinal diseases, high blood pressure, celiac disease, hand hygiene, midwifery, laboratories, cancer, autism, tuberculosis, emergency medicine technicians and technicians, oral and dental health, 14 March Medicine Day, protecting kidney health, earthquake, green crescent, childhood cancers.
Informing with Institution News	33	Interview about Lung Cancer Month, programs made by the spiritual counseling and guidance unit, interview on the European Antibiotic Awareness Day, world premature day event, event of pressure injury prevention day, pregnant school, COPD, Diabetes, Interview on World Pneumonia Day, İnterview about organ and tissue transplantation, interview about hand hygiene, interview on the International Day of Disaster Risk Reduction, interview for world arthritis day, Interview for the palliative day, giving diabetes school diplomas to patients,

		interview for seniors day, activity for hearing week, interview for world lymphoma day, Interview for world sepsis day, interview on obesity, surgery of a patient with breast cancer in the city hospital, act for health interview, the news of the hospital doctor's beating by the relatives of the patient, interview for glaucoma week, interview on obesity, interview for ear and hearing day, interview for civil defence day, news of job change in chief physician, visit to the chief physician.

"The corporate functioning" category covers the institutional studies, meetings, physicians who start working in the hospital and physicians who leave the hospital. In the "education category", the posts about the pieces of training organized for both personnel and citizens are grouped. "Important days and diseases category" covers information and advice on various diseases and the information provided in the field of health on the occasion of important days and weeks. Cancer Week, aids day, midwives week, world hand hygiene day, and laboratories day are some of them. Interviews were held with experts in the field of health on important days and weeks, and these conversations were shared on Twitter. These expert opinions are important in terms of increasing the awareness of the society. In the Corporate News category, there is the reporting of various events and conversations. "The corporate news category" includes information made through various events and interviews. Especially with the spread of social media, institutions share their corporate news through social media accounts, and people need to follow these accounts. Subjects such as the treatment methods applied in the hospital and various surgeries attract people's attention. Interviews about health on special days increase awareness of society on various health issues. Therefore, on these special days and weeks, the Twitter account of Isparta City Hospital is used as a means of informing society and raising awareness.

4. CONCLUSION

This study deals with the posts made in the Twitter Account of Isparta City Hospital in 2022 within the framework of the public information model. Therefore, the main conclusions reached in this study can be listed as follows:

- A total of 206 posts were made on the Twitter Account of Isparta City Hospital in 2022. The posts do not show a regular distribution according to the months.
- The analysis showed that 48.05 percent of the posts were made within the framework of informing the public. The public information model has the highest value compared to other public relations models.
- It has been observed that 99 posts coded within the framework of the public information model can be grouped under corporate functioning, education, important days and diseases, and corporate news.
- A large part of the information contents in the posts includes the topics of illness or healthy life. These are generally corporate news and posts on important days and weeks.

REFERENCES

Alemdar, M. Y., & Kocaömer, C. (2020). Çevreci sivil toplum kuruluşlarının Instagram paylaşımlarını diyalogsal ilkeler ve halkla ilişkiler modelleri bağlamında okumak. *Istanbul University Journal of Communication Sciences*, *59*, 299-331.

Arslan, A. (2021). Halkla ilişkiler modelleri temelinde sağlık iletişimi: Yeni medya üzerinden Sağlık Bakanlığı'nın incelenmesi. *Ege Üniversitesi İletişim Fakültesi Medya ve İletişim Araştırmaları Hakemli E-Dergisi*, 4-28.

Bekman, M., & Soncu, A. G. (2020). Halkla ilişkiler modellerinde yeni iletişim kanallarının kullanımı. *Ekonomi Maliye İşletme Dergisi*, *3*(2), 191-203.

Çobaner, A. A., & Köksoy, S. (2014). Akademik Bilişim'14-XVI. Akademik Bilişim Konferansı Bildirileri 5-7 Şubat 2014 Mersin Üniversitesi. *Sağlık Alanında Sosyal Medyanın Kullanımı: Twitter'da Sağlık Mesajları*, 899-906.

Dara, A. Y. (2011). Kamu Yönetiminde Halkla İlişkiler ve Sosyal Medya. *Selçuk İletişim, 7*(1), 5-15.

Durusoy, H. (2018). İki yönlü simetrik iletişim çerçevesinden Kadıköy ve Datça Belediyeleri Twitter kullanımı. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, *6*(1), 615-644.

Grunig, J. E., Grunig, L. A., Sriramesh, K., Huang, Y.-H., & Lyra, A. (1995). Models of public relations in an international setting. *Journal of Public Relations Research*, *7*(3), 163-186.

Grunig, J. E., Grunig, L. A., Sriramesh, K., Huang, Y.-H., & Lyra, A. (2009). Models of Public Relations in an International Setting. *Journal of Public Relations Research*, *7*(3), 163-186.

Grunig, J. E., & Hunt, T. (1984). *Managing Public Relations*. Wadsword /Thomson Learning.

Güregen, E. P., Öztürk, H. S., & Yiğit, B. C. (2021). Halkla ilişkiler ve diplomasi ayrımının muğlaklaşması: Sağlık Bakanı Fahrettin Koca'nın Twitter Hesabı İncelemesi. *İstanbul Aydın Üniversitesi Sosyal Bilimler Dergisi*, *13*(2), 383-418.

Ilgın, H. Ö., & Ulupınar, Ş. C. (2020). Kamuyu bilgilendirme modeli çerçevesinde Covid 19 süreci; Dr. Fahrettin Koca Instagram hesabı analizi. *Sosyal Beşeri ve İdari Bilimler Dergisi*, *7*(3), 500-517.

Kalender, A. (2013). Kavram Olarak Halkla İlişkiler, Dünyada ve Türkiye'de Halkla İlişkilerin Tarihsel Gelişimi. İçinde A. Z. Özgür (Ed.), *Halkla İlişkiler*. Anadolu Üniversitesi Açıköğretim Fakültesi Yayını.

Koçyiğit, M. (2017). *Dijital Halkla İlişkiler ve Online Kurumsal İtibar Yönetimi*. Eğitim Yayınevi.

Okay, A., & Okay, A. (2007). *Halkla İlişkiler Kavram Strateji ve Uygulamaları*. Der Yayınları.

Peltekoğlu, F. B. (2016). *Halkla İlişkiler Nedir?* Beta Basım A.Ş.

COULD INDONESIAN RETAILERS SURVIVE THE CIRCULAR ECONOMY ERA WITH SUSTAINABLE MARKETING EFFORTS? BUILDING UP A CASE STUDY FOR THE USE OF DIGITAL MARKETING AT THE TIME OF THE CORONAVIRUS ENDEMIC TO INCREASE CUSTOMER SATISFACTION

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Abstract

Coronavirus still becomes a threat to everyone nowadays, besides the vaccine that has been injected three times. Some people in Indonesia still catch its variant, Omicron. The present paper uses the quantitative research method, particularly observation and document collection. This sort of technique is often used by a scientist who wants to know the background of the future research that would take place in the future and if it is feasible to actualize it to long-range term research. Whether or not Digital Marketing could help Indonesian retailers achieve customer satisfaction becomes a central issue in this paper. The paper concludes with the problem of online privacy that becomes a number one threat when an individual (in this case, a customer) uses their devices to access the Internet.

Keywords: coronavirus endemic, retailer, small medium enterprise, digital marketing, customer satisfaction, privacy, Indonesia, Indonesia's gross domestic product, industry revolution 5.0

1. INTRODUCTION

Coronavirus is still there, yet its effect is not as severe as before. In the time of the Coronavirus endemic, the sectors that were most affected by the Coronavirus pandemic are SMEs or small and medium enterprises, and retailers such as retail stores or convenience stores are included in this criterium. This crisis is different from the economic crisis that hit Indonesia in 1998 where the SME sector was the most resistant to the crisis. On average, after the coronavirus pandemic, there was a decline in sales of 94.69% of SME business units. The number of SMEs in Indonesia as of 2018 was 64.199 million business units contributing 99.9% to the total national business units, absorbing 120.598 million jobs, contributing 97% of the total national employment, and generating gross domestic product (GDP) at a current price of IDR 8,573,895 trillion which contributes 61.07% of total GDP. Due to the very large number and value of transactions, the decline in sales of the SME sector due to the Coronavirus pandemic has significantly impacted national economic growth.

The present paper uses the quantitative research method, particularly observation and document collection. This sort of technique is often used by a scientist who wants to know the background of the future research that would take place in the future and if it is feasible to actualize it to long-range term research. Therefore, after this paper has been published, it is hoped that any critiques and commentary would give us a stimulus to devise a sound and better plan that not only adhered to what the project needed but fulfilled the need and want of an investor or the specific characteristics that the actor (in this case retail store or convenience store had in common).

2. ANALYSIS

The contribution of the retail sector as part of the SMEs to national development can be seen from the components contributing to Indonesia's Gross Domestic Product. In 2021, Indonesia's GDP was supported by the manufacturing sector (19.88%), agriculture, forestry and fisheries (13.70%), Wholesale and Retail Trade, Car and Motorcycle Repair (12.93%), Construction (10%), excavation and research (6,44%). In the manufacturing industry, the food and beverage industry contributed 34.45% of the manufacturing industry portion. Meanwhile, the agricultural sector consisting of plantation crops, food crops, and fisheries contributed 26.50%, 22.41%, and 20.43%, respectively. The wholesale and retail trade sectors with a contribution of 81.97%. The mining sector is dominated by oil, gas, and geothermal (33.36%) and coal (28.42%).

Meanwhile, in terms of employment, the forestry and fishery sector contributed significantly to the absorption of labour by 29.76%, wholesale and retail trade by 19.23%, processing industry by 13.61%, amounting to 6.28 %, education by 4.63%, transportation and warehousing. by 4.35%. Meanwhile, from the number of business actors, the agriculture, forestry, and fishery sectors dominate, with the number of business actors reaching 18.51 million (14.41%) and wholesale and retail trade 14.09 million business actors or 10.97%.

In terms of GDP expenditure, household consumption occupies the highest position at 57.66% which is divided into Food and Beverage (23.78%), Transportation and Communication (11.64%), Housing and Household Equipment (7.69%), Restaurant and Hotel (5.53%), health and education (4.23%), clothing, footwear and care services (2.05%) and others (2.75%).

However, when SMEs particularly retailers generally need to work on adapting and winning the competition, it is feared that the number of SME actors will decrease. The industrial revolution 4.0 has been running and moving fast with various changes in behaviour and business patterns. Application-based services include online motorcycle taxi applications, online food and beverage business, online delivery service, distance learning, fintech, e-government services, and so on. In terms of efficiency, industry 4.0 may have produced some efficiencies. However, the development of the industrial revolution 4.0 can also lead to many jobs and the birth of new jobs. It is estimated that around 51.8% of the potential employment opportunities in Indonesia will be lost and replaced by online-based business and buying and selling activities.

Seeing the role and contribution of SMEs to the Indonesian economy has led the Indonesian government to strive to increase the competitiveness of SMEs. This is because SME businesses are businesses that are vulnerable to business movement. Therefore, the Indonesian government has a severe concern about improving the competitiveness of SMEs so that they can advance from micro to small and from small to medium. Therefore, efforts and strategies have been carried out starting from efforts to simplify regulations through the omnibus law approach, to how SMEs can compete in the era of the industrial revolution 4.0. It is believed that the 4.0 industrial revolution will change the microeconomic order.

These changes can take the form of the use of digitization, automation, and the use of intelligence in economic activities. Of course, these innovations and practices will result in speed and convenience from the consumer side. However, if micro and small businesses stutter and fail to adapt and have competitiveness, it is feared that the number of SME actors will decline. On the other hand, the industrial revolution 4.0 has worked and is moving fast with various changes in behaviour and business patterns.

The presence of SMEs via the Internet termed as Digital Marketing to reach their customer, have proven to help in this matter. Other application-based services that include online motorcycle taxi applications, online food and beverage businesses, online delivery services, distance learning, fintech, e-government services, and so on have grown and are now used daily by Indonesians. In terms of efficiency, industry 4.0 may have produced several efficiencies. However, the development of the 4.0 industrial revolution can also cause the loss of many jobs and the birth of new jobs. It is predicted that around 51.8% of job potential in Indonesia will be lost and replaced by online-based business activities and buying and selling.

This condition is certainly a problem in itself when faced with the condition of retailers' competitiveness in Indonesia. Retailers' and SME problems in Indonesia are believed to be related to competitiveness. This can be seen in Law No. 20/2008 that the government has high attention to building a good business climate. The strategy developed is to improve regulations relating to the aspects of funding, facilities and infrastructure, business information, partnerships, business licensing, business opportunities, trade promotion, and institutional support.

For marketers who want to sell a product or service, it is essential to understand consumer behaviour. Success in creating demand is inseparable from success in understanding consumer behaviour. Consumer behaviour is the behaviour people show in planning, buying, and using economic goods and services. Marketers are obliged to understand consumers, know what consumers need, what consumer tastes are, and how consumers make decisions.

Motivation is one of the factors that influence consumer behaviour; motivation is an internal drive (or need) that moves someone to make a purchase action to satisfy two types of desires, namely core desires and secondary desires. Consumer purchasing decisions are influenced by three perspectives, namely: rational perspective, experiential perspective, and behavioural perspective. Marketing is the process of identifying consumer needs and convincing consumers that they need these goods and services, understanding consumer behaviour well will help marketers develop appropriate marketing strategies.

The coronavirus endemic has caused changes in social behaviour globally. The coronavirus endemic, especially after the implementation of social restrictions (lockdown) policies in various countries in Indonesia known as Large-Scale Social Restrictions, has caused sudden social changes. Social change was then followed by consumer behaviour changes reflected in purchasing decisions. Social restrictions (lockdown) policies in various countries have caused shocks to consumer loyalty behaviour due to supply chain disruptions so that product brands that are always chosen by consumers are difficult to find; during an endemic, consumers will try products with different brands, which is the main driving force for consumers to try various brands in addition to value and quality; product availability.

In the period before the coronavirus endemic, from a rational perspective, rational consumer purchasing decisions will carefully consider, the price aspect, as well as the best features and services of a product, will be the main consideration in purchasing decisions. From an experiential perspective, the buying considerations are based on unique experiences such as watching a movie, consumers going to the cinema, or listening to music, consumers will prefer to listen to singers live at a music concert. Consideration of purchasing decisions from a behavioural perspective is a response to environmental influences. For example, to enjoy food and drink, consumers prefer to go to a restaurant or cafe because they want to enjoy a calm and comfortable atmosphere or sit longer while working and meeting business partners.

During this coronavirus endemic, the perspectives above have changed; purchasing decisions during the endemic is more based on functional aspects. According to research conducted, many consumers around the world continue to experience a decrease in the priority of attention to home needs and equipment. Consumers will be more careful in considering each purchase decision stage due to the associated health risks and social distancing situations. In various countries, consumers decide where to shop by determining which applies health safety standards.

The coronavirus endemic has led to a new normal of life. In the new regular order of life, under the pretext of avoiding physical contact that poses a risk of coronavirus transmission, consumers prefer to make purchases online. Anxiety about the exposure effect of directly meeting other people in public spaces causes people to tend to avoid direct contact. To get safe products in the era of the coronavirus endemic, people prefer to buy online, so the most appropriate marketing channel is online sales. In markets with moderate online conversion rates before the endemic such as the UK and the US, e-commerce continued to grow across all product categories during the endemic. Meanwhile, during the endemic in Indonesia, there was a 400% increase in online shopping.

People are becoming more empathetic based on the same attitudes and behaviour during the coronavirus endemic. Empathy is a mental state that makes a person feel or identify with the same feeling or thoughts as other people or groups. Because the more empathy, the more people become more concerned with others and the value of collectivism will grow to influence consumer behaviour, the value of collectivism implies cooperation, assistance, and consideration of common goals rather than individual goals. During the endemic, consumers in various countries buy more products from companies that show concern and care for their employees because, during difficult times during the endemic, consumers have a high awareness of how to interact with stakeholders, local communities, and communities.

A minimarket or convenience store is a small shop easily accessible to the general public or locally that offers convenience and services like a supermarket but on a smaller scale. A minimarket is a kind of "grocery store" or one that sells all sorts of goods and food, the difference here is that minimarkets usually apply a point-of-sale cash register system for sales, but it is not as complete and as big as a supermarket. Also, in contrast to grocery stores, minimarkets implement a self-service system, where customers take the items, they need from the minimarket shelves and pay for them at the cashier counter.

The points at which the customer submits and receives back the product he bought from the cashier, as described above are often called the next "moment of truth" in a series of "moments of truth" that are triggered when the product is first seen through one of the promotional mixes used. company. "Moment of truth(s)" is essentially a recording (recording) of events that provide an immersive experience and tend to direct the individual in making the next decision.

Like customers, buying a product at one of these retailers will ultimately lead to satisfaction or dissatisfaction.

Several main things can cause customer dissatisfaction, but the most prominent at this time during the Coronavirus pandemic are economic costs and customer privacy. The relevance of economic costs is related to customers who, in this study carry out the function of a daily business decision-maker when shopping. The post-Coronavirus situation forces every customer to be more efficient in shopping. The budget for household staples in Indonesia tends to be depleted more quickly when food prices are uncertain at the market level.

Costs are usually closely related to the running of a promotion. The promotion of a product consumes many company costs in its efforts to market its products. Therefore, companies as much as possible, reduce their costs in all sectors. With digital marketing, companies will find it easier to reduce their promotional costs because digital marketing has a fairly high-efficiency level. Because promotion costs can be reduced, the price of products or services provided by the company can be lower. From the customer side, they also quite benefited because apart from getting a lower price, they no longer have trouble and waste their time coming to a company's store to make a purchase.

However, because the term we use is an economical cost, this refers to the opinion of an expert on diffusion flow, namely Edward Mansfield in 1960. The premise of economic costs comes from simplifying the innovation process (in the context of this research, namely digital marketing) to the lowest denominator, namely, cost function, which later gave birth to Mansfield's Diffusion Model. This model is mainly used when studying the technological substitution of innovation in a particular industry which is then described as a logistics curve based on internal influences.

Mansfield also states the four premises of economic factors that will influence adoption decisions (post-innovation), namely, first, the extent to which an innovation offers a financial advantage over the technology it replaces. Second, the magnitude of the uncertainty inherent in the decision to adopt new technology. Third, the level of commitment required to test the innovation, and fourth, the level at which initial dissatisfaction with creation can be reduced.

A large number of retail businesses in Indonesia is one of the causes of the difficulty in maintaining good relationships with customers. Customers will be attracted easily if other retailers can provide the services their customers want. Therefore, companies need to monitor existing customers and make efforts to keep these customers from moving to other retailers.

One of the media that companies often use to reach customers is digital marketing. Digital marketing is principally related to the range of access platforms and communication tools that form the online channels used by electronic marketers to create and strengthen customer relationships. In the process of maintaining a good relationship with customers, the development of SMEs is highly affected by the business world which in turn is strongly

influenced by technology and information, including the marketing department which any line of business must master. The Internet performs various aspects of the marketing function, working as a mechanism to build demand, directing consumers to purchase actions, filling orders, providing customer service, and also functioning as a versatile advertising medium. Furthermore, the Internet is claimed to be a better communication medium because of its versatility and superiority in targeting consumers.

Internet technology and marketing should be viewed as things linked as mutually beneficial patterns. If there is no technology, then marketing will be backward and will not advance to meet the demands of the times. So, in this case, it is necessary to know the role and impact of technology in the field of marketing. This, in the end, does not only apply to marketing, but also spreads to other fields even outside of management and economics, such as agriculture, animal husbandry, fisheries, and other industries,

Digital marketing is the application of digital technology that forms online channels to the market (website, email, database, digital TV, and through various other latest innovations, including blogs, feeds, podcasts, and social networks) that contribute to marketing activities, which aim to profit and retain consumers (in the multi-channel buying process and customer lifecycle), through recognizing the importance of digital technology and developing a well-planned approach to increase consumer awareness (of the company, its behaviour, values , and brand loyalty drivers), and then conveying messages through integrated and focused online-based communication and service activities to meet specific customer needs.

Digital marketing uses the internet and information technology to expand and enhance traditional marketing functions. This definition concentrates on all conventional marketing. We can also state that opinions such as interactive marketing, one-to-one marketing, and e-marketing are closely related to digital marketing. Sawicky (2016) defines digital marketing as the exploitation of digital technology to create a channel to reach potential recipients and achieve company goals by meeting consumer needs more effectively.

Digital marketing is a marketing activity including branding that uses various web-based media, such as blogs, websites, email, AdWords, or social networks. In other words, digital marketing is using the internet and other interactive technologies to create and connect dialogues between companies and identified consumers. By using digital marketing, companies can provide online customer service 24 hours a day and 7 days a week. The company opens opportunities for customers to get to know, communicate, interact with, and even build solid relationships to create loyal customers for the products and services the company offers.

Digital marketing is needed to generate customer loyalty from all walks of life, advanced and technologically educated to use modern devices, such as smartphones, computers, tablets, and digital devices, which have become part of their lives. Using this device every day offers customers a good level of trust and adventure to try new approaches to online shopping,

especially since there are many ways to bridge customers to products and services using digital marketing. In addition, the innovation platform is ready to offer customers effective communication with online communities, friends, or strangers, to share their pleasure or dissatisfaction in using the product/service.

Customers who have loyalty feel an emotional bond with the company. This emotional bond makes customers loyal and encourages them to continue purchasing the company's products and provide recommendations. Creating positive emotions and feelings is very important in building relationships. An emotionless relationship becomes a mechanical activity, a behavioural process, and leaves the customer with no real reason to stay.

The essence of digital marketing is to make the company easy for customers to reach by being present in digital media with direct access to customers. This is called the horizontal approach, where when the company and the customer are on the same line, both can reach each other, and customer satisfaction with service can be fulfilled because customers must be served horizontally. This is because customers demand the same good service even more than competitors. If there is a difference in service, the customer may leave the company. Digital marketing can help companies to improve their performance and earn profits. Digital channels also offer opportunities for cost efficiency for both the company and the customer so that customers will feel satisfied and increase their loyalty.

3. FINAL NOTE

The development of the business world is strongly influenced by technology and information, including the marketing department, which must be mastered by any line of business. The Internet performs various aspects of the marketing function, working as a mechanism to build demand, directing consumers to purchase actions, filling orders, providing customer service, and functioning as a versatile advertising medium. Technology and marketing can be linked as patterns that mutually benefit each other. If there is no technology, then marketing will be backward and will not advance to meet the demands of the times. So, in this case, it is necessary to know the role and impact of technology in marketing. The question, however often asked by everyone, is how secure the interaction is.

Customer privacy currently becomes a significant concern for digital customers due to the increasing acts of identity theft by cybercriminals or those who use the ability to recognize the identity of online perpetrators when online actors access a series of Internet-based platforms or media or sites, both legal and illegal that contains pornographic material or other prohibited materials such as related to matters that violate ethics.

Behind the disadvantages of the Internet, the use of the Internet or digital media and digital marketing, in this case, can also provide many advantages because the advantages of digital technology allow for instant two-way communication between producers and customers, where customers can choose, order, respond and even submit complaints directly anywhere and

anytime. An essential point of the advantages of digital technology is the high frequency of communication or interactions between the company and customers with a fast information distribution process, which indicates the existence of high-frequency transmission.

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REFERENCES

Badan Pusat Statistik, Republik Indonesia. http://www.bps.go.id (Accessed Date: 14th August 2022).

Badan Pusat Statistik Sulawesi Selatan, Republik Indonesia http://www.sulsel.bps.go.id (Accessed Date: 17th August 2022).

Kementerian Investasi Republik Indonesia, Badan Koordinasi Penanaman Modal (BPKM), *Upaya Pemerintah Untuk Memajukan UMKM Indonesia*: https://www3.bkpm.go.id/id/publikasi/detail/berita/upaya-pemerintah-untuk-memajukan-umkm-indonesia (Accessed Date: 6th September 2022).

Usaha Mikro Kecil & Menengah, Republik Indonesia. http://www.ukmindonesia.id (Accessed Date: 29th September 2022).

United Overseas Bank - UOB (2022). *ASEAN SME Transformation Study 2022: Be Resilient, Your Strategy for Business Growth*, 3rd Edition. UOB, Accenture & Dun and Bradstreet (D&B) Report. Singapore.

GREENING OF MONETARY POLICY: FROM MARKET NEUTRALITY TO GREEN RULES

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Abstract

The purpose of this paper is to present and discuss the main elements of the green monetary policy. Using the available researches, authors give an overview of the incorporation of green rules into a monetary policy. The limitations of this paper arise from the fact that green monetary policy is still at its beginning, and a certain period is necessary to see how central banks are developing and adopting it.

Keywords: green central banking, green bonds, monetary policy

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1. INTRODUCTION

The environmental disasters, climate shocks, and extreme weather events have strengthened the awareness and the necessity of incorporating environmental, social and governance (ESG) criteria into all business activities and public policies that would accelerate the transition to a green economy. Global warming and climate change are not only environmental problems but also might cause many negative economic implications. They change ecosystem productivity causing a potential fall of worldwide output and an increase in costs of production and consumer prices (Parker, 2018), but they are not a cyclical phenomenon (Cœuré, 2018) to which monetary and other macroeconomic policies can respond with usual instruments and operations.

Since climate change and environmental risks could affect business activities and financial results of firms, they represent the risk for entrepreneurs as debtors and banks as creditors. Financial institutions' resistance to sector-wide challenges associated with climate change (and also the net-zero transition) depends on the level of their exposure to carbon-intensive assets in the terms of credit risk, market risk, and liquidity risk. Similarly, how environmental risks increase default probabilities related to financial institutions' investments could affect default probabilities about different classes of central banks' assets like foreign currency reserves and holding of securities for monetary policy. Therefore, support for an environmentally sustainable system is important for the environment, the economy, and financial stability.

Droughts, floods, hurricanes, and other physical damages affect productivity and price stability, including climate change impacts on agricultural production and food prices as an important component of consumer price inflation. Greening of monetary policy is therefore compatible with price stability, and central banks are committed within their mandate to account for climate change. Moreover, despite potential inflationary implications of the carbon taxes, more expensive borrowing, or other penalties for fossil energy producers and carbon-intensive industries in the short-run, the increasing share of renewable energy sources can reduce total energy prices and risks to price stability in the long run (Ferrari and Landi, 2022), while also supporting energy security. Regarding this, central banks should take climate change into their macroeconomic models (Debelle, 2019), but "financial policymakers will not drive the transition to a low-carbon economy" (Carney, 2020).

The paper aims to analyze the development of green finance and the greening of prudential and monetary policy. The issue to which more attention will be paid is market neutrality in the greening of monetary policy, as a fundamental criterion for the operation of central banks, relative to the rules of green procedure which can reduce the effectiveness of monetary policy to achieve price stability and support sustainable economic growth in the short run.

2. SUSTAINABLE FINANCE INITIATIVES

In addition to regulations and standards in the field of environmental protection, as well as environmental taxes and penalties for CO_2 emissions, many private and public initiatives for

sustainable economic growth and finance have been launched on the global level. The starting points for many of them were the United Nations Environment Programme, established in 1972 Stockholm UN Conference on the Human Environment and a further creation of the UNEP Finance Initiative during the Rio Earth Summit in 1992. Today the United Nations Environment Programme Finance Initiative (UNEP FI) represents an extensive global network of more than 450 banks and insurers (with assets exceeding US$100 trillion) that promote the principles of responsible banking, sustainable insurance, and responsible investments.

Numerous other initiatives have also been launched to achieve the objective of the Paris Agreement to limit global temperature increases to 1.5°C from pre-industrial levels. For example, the Sustainable Stock Exchanges Initiative (SSE) was launched in 2012, and today, it represents a global platform of 113-member stock exchanges (SSE, 2021). One of its functions is to provide technical advice and assist interested exchanges with drafting guidance on reporting ESG information for security issuers listed on their market.

The Net Zero Financial Service Providers Alliance (NZFSPA) is a global group of service providers (credit rating agencies, stock exchanges, auditors, accounting firms, investment advisers, ...) committed to supporting the transition to a net zero greenhouse emissions. The Glasgow Financial Alliance for Net Zero (GFANZ) brings together more than 550 firms, including banks, insurers, asset owners, asset managers, financial service providers, and investment consultants. The GFANZ was launched in April 2021 (during the COP26 summit in Glasgow, the UK) by the UN Special Envoy on Climate Action and Finance Mark Carney, the former Governor of the Bank of England. Mr. Mark Carney is undoubtedly the most famous promoter of green finance at the global level, with a strong influence on greening central banking in the UK and other countries.

With the purpose of helping all global monetary authorities and regulators to better assess the multifaceted risks posed by climate change in financial systems, during the Paris "One Planet Summit" in December 2017, eight central banks and supervisors established the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). Today the NGFS consists of 121 members and 19 observers - including national central banks, banking regulatory bodies, national financial sector supervisors, and international institutions that voluntarily exchange experiences and share best practices of monetary and prudential reforms to improve the environment and climate risk management in the financial sector.

3. ENVIRONMENTAL REQUIREMENTS FOR THE BOND MARKET

In addition to green bank loans to households and allocations of loans to sustainable business sectors, significant improvements are also achieved in developing the global green bond market. At the end of 2020, the value of green bonds traded hit $2.3 trillion with the significant participation of green bond issuers from the US, China, and France (World Economic Forum, 2020). The eligible green finance projects include private and public investments related with

renewable energy and energy efficiency, pollution prevention, circular economy, sustainable use of natural resources, and other projects that emphasize the issuer's environmental sustainability objectives and are aligned with guidelines that recommend transparency, accuracy, and integrity of information that will be disclosed and reported by issuers to stakeholders.

Developing the green/ sustainable bond market opens space for more active use of green criteria in monetary policy operations. The biggest holders of green bonds are banks, investment and pension funds, insurers, and central banks. So, for example, the ESB and the Eurosystem hold around 20% of all euro-denominated green debt (World Economic Forum, 2020), which mainly includes a part of corporate bonds purchased through non-standard open market operations after 2016. Although non-standard operations have ended, since October 2022, the ECB has been considering climate criteria when reinvesting funds from maturing corporate bonds according to the 2021 action plan to include climate change considerations in its monetary policy framework.

However, corporate bonds are not a typical asset in the portfolio of central banks, so central banks also use other principles of climate-friendly investments. For example, the Swedish Riksbank has restructured the portfolio of foreign exchange reserves in favor of increasing the share of government bonds issued by countries with a lower carbon footprint while reducing the share of bonds from countries with a higher carbon footprint (Flodén, 2019). That reflects the strategy of supporting sustainable development and the fight against climate change. This can also be seen in managing the market risk of central banks' portfolio assets, as central banks and non-banking regulators stimulate climate risk management in the financial sector.

4. GREENING OF CENTRAL BANKING

Despite the intensive development of green finance, most bank loans and other financial investments are still placed in companies and sectors with a significant carbon footprint. To accelerate the transition to a sustainable economy and address risks related to climate change, many central banks are adapting prudential frameworks and principles for the application of classification standards that will help financial institutions to assess better their climate-related exposures and sector-wide challenges associated with the net-zero transition as well as to mobilize more capital for green and low-carbon investments which would enable environmentally sustainable development.

Global warming and climate change are not only environmental problems but might cause many negative implications for the economy and financial stability. The climate-related shifts in the physical environment might significantly reduce global output and increase production costs and consumer prices. As a result, climate change has become a systemic risk (ESRB, 2016) to the global economy. However, it is not a cyclical phenomenon (Coeuré, 2018) to which monetary and other macroeconomic policies can respond with usual instruments and

operations, especially in the context of conflicting goals in the case of opposite movements of output and prices.

Since climate change vulnerability affects business activities and financial results of firms, it represents the risk for entrepreneurs as debtors as well as the risk for banks as creditors. At the same time, the risks for financial institutions are not only those related to physical damage to the assets of clients and a drop in debtors' income due to ecological disasters or natural disasters but also include risks of (too fast) transition to a green/ sustainable economy that might shut down specific industries.

Apart from credit risk (debtors' ability to repay their debt and risk of potential depreciation of assets used for collateral), climate change also emphasizes other risks for financial institutions, including market risk (the devaluation of carbon-intensive assets whose value depends on the extraction or usage of fossil fuels and other carbon-intensive resources) and liquidity risk (difficult refinancing) in case of fire-sale of securities or other assets due to a rapid transition to a green economy. The implications of such systemic risk depend on financial institutions' exposure to carbon-intensive assets (ESRB, 2016) which is still very high and also exist in the balance sheets of some central banks that have been more intensively buying private sector securities in recent years.

Cevik and Jalles (2020) find that countries with greater vulnerability to risks associated with climate change have higher sovereign bond yields and spreads relative to countries that are more resilient to climate change. Support for an environmentally sustainable system is important for the environment, economy, and financial stability.

The next area of influence is the issue of price stability. Despite potential constraints and inflationary implications in the short run, the increasing share of renewable energy sources can reduce total energy prices and risks to price stability in the long run (Ferrari and Landi, 2022) while supporting energy security. The energy crisis, inflation (led by an increase in fossil fuel prices after the Russian invasion of Ukraine) and increased geopolitical risks during 2022 pointed to the importance of the green transition in achieving the diversification of energy sources to prevent adverse supply shocks that can threaten central banks in achieving the goal of price stability. The energy crisis related to increased geopolitical risks is particularly evident in the members of the European Union, which record-high inflation and faced with other risks of adverse supply shocks related to less availability of energy sources and their rising prices with significant adverse effects on the macroeconomic activity as well as the rising yields on government bonds of the most developed the EU members.

5. GREENING OF MONETARY POLICY INSTRUMENTS

The fields of green central banking implementations are green credit allocation policies, green prudential regulations and other activities such as developing green finance guidelines or setting up green bond markets (Dikau and Ryan-Collins, 2017). The green monetary policy rules are implemented in several developing countries with high environmental pollution and less developed financial markets. Examples of green monetary rules in credit allocation policies include (Dikau and Volz, 2021):

• lower reserve requirement for banks' claims related to less carbon-intensive activities (implemented by the Bank of Libanon);
• green-targeted refinancing lines to banks for investments in renewable energy projects and energy-efficiency projects at lower-than-market interest rates (implemented by the People's Bank of China, the Bangladesh Bank and the Reserve Bank of India);
• requirements for the minimum share of banks' loan portfolio that must be allocated to priority sectors (40% of net commercial credit in India and 5% of total loan portfolio in Bangladesh);
• the combination of monetary and prudential restrictions of lending to carbon- and energy-intensive industries and firms that violate environmental compliance rules (case of China) and restrictions on lending in environmentally sensitive areas (implemented by Banco do Brazil for Amazon region).

All mentioned measures are more administrative than market-oriented and can contribute to distortions of the financial system (Lang et al., 2020) due to differential interest rates, direct support to certain industries, and lower efficiency of financial markets, causing adverse impacts on the economy in case of inadequate adjustments in the industrial production structure (Liu at al, 2015). For mentioned reasons, green monetary policy rules are not acceptable for advanced economies.

Until recently, many central banks in advanced countries have been skeptical of green monetary policy, arguing that it is incompatible with their mandate. Since supporting sustainable finance is possible through fiscal, prudential, and other non-monetary economic policies, central banks had a good explanation of why the greening of monetary policy is not needed, especially regarding the development of numerous private sector initiatives for responsible investments. The prevailing opinion was that monetary policy should remain 'market neutral' with the desirable minimalist conception of operations restricted only to open-market purchases of government securities or with temporarily extended orientation, including purchases of private sector debt securities but without sectoral preferences or green classification standards.

As eligible securities are more liquid, lower haircuts implemented on low-carbon intensive securities can reduce the cost of capital for their issuers relative to high-carbon intensive sectors and in this way central banks can help direct capital toward sustainable activities. Practically, similar proposals have been implemented by the ECB since October 2022. Although non-standard operations of the ECB have ended, the ECB has been considering climate criteria when reinvesting funds from maturing corporate bonds. However, it is not green monetary policy

rule, and described greening of monetary policy cannot be substitute for the climate policy of governments (Heemskerk, 2022). Despite different interpretations of how the EU Climate Law affect the ECB's responsibilities in conducting monetary policy and banking supervision, the ECB is not a relevant institution under the Climate Law, and „in the field of the environment, the ECB is a policy taker, not a policymaker "(Elderson, 2022).

6. CONCLUSION

The greening of central banking might contribute to price stability and central banks are committed to their mandate to account for climate change. On the other hand, too fast net-zero transition could also affect consumer prices and cause disruptions in financial system. For these reasons, transition to a low-carbon economy must result in something other than undesirable inflation pressure or negative impacts on output. This is also why greening of monetary policy can be applied only gradually in order to avoid negative consequences. In terms of the operative cost of businesses and household expenditures, accelerating the transition to a green economy is desirable with the same dynamic as renewable sources (like solar and wind electricity), and low-carbon infrastructure will become cost-effective. That is one of reasons why strict green rules of monetary policy (advocated by various lobby groups, activists and green political parties) are not desirable.

REFERENCES

Carney, M. (2020). Fifty Shades of Green: We Need a New Financial System to Stop Climate Change. IMF. https://www.imf.org/en/Publications/fandd/issues /2019/12/a-new-sustainable-financial-system-to-climate-change-carney

Cevik, S., & Jalles, J. T. (2020). This Changes Everything: Climate Shocks and Sovereign Bonds. IMF Working Papers. 79. https://www.imf.org/en/Publications/WP/Issues/2020/06/05/This-Changes-Everything-Climate-Shocks-and-Sovereign-Bonds-49476

Cœuré, B. (2018, November 8). Monetary policy and climate change [Speech transcript]. BIS. https://www.bis.org/review/r181109f.pdf

Debelle, G. (2019, March 12). Climate Change and the Economy [Speech transcript]. Centre for Policy Development. https://www.bis.org/review/r190313d.pdf

Dikau, S., & Ryan-Collins, J. (2017). Green Central Banking in Emerging Market and Developing Country Economies. New Economics Foundation. https://neweconomics.org/2017/10/green-central-banking-emerging-market-developing-country-economies/

Dikau, S., & Volz, U. (2021). Central bank mandates, sustainability objectives and the promotion of green finance. Ecological Economics, 184, 107022, 1-20. https://doi.org/10.1016/j.ecolecon.2021.107022

Elderson, F. (2022). The European Climate Law and the European Central Bank [Speech transcript]. Lustrum Symposium, Dutch Financial Law Association. https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp221201_1~435e6ea81a.en.html

European Systemic Risk Board. (2016). Too late, too sudden: Transition to a low-carbon economy and systemic risk. Reports of the Advisory Scientific Committee. 6. November. https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf

Ferrari, A., & Landi, V.N. (2022). Will the green transition be inflationary? Expectations matter. ECB Working Paper Series, 2726, September. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2726~3e04b5ba5d.en.pdf

Flodén, M. (2019, November 13). Riksbank selling bonds for climate reasons [Speech transcript]. Örebro University and Kommuninvest. https://www.riksbank.se/en-gb/press-and-published/speeches-and-presentations/2019/floden-riksbank-selling-bonds-for-climate-reasons/

Heemskerk, I., Nerlich, C., & Parker, M. (2022, November, 9). Turning down the heat: how the green transition supports price stability. ECB Blog. https://www.ecb.europa.eu/press/blog/date/2022/html/ecb.blog221109~6ad307c8cf.en.html

Lang, M., Svaljek, S., & Ivanov, M. (2020). The Wave Has Risen: Central Banks' Response to Climate Change. 26th Dubrovnik Economic Conference. HNB. https://www.hnb.hr/documents/20182/2916247/dec26_lang-svaljek-ivanov.pdf/74eb83b8-8c06-321d-f374-3f2c1eb5ce03?t=1594749091927

Liu, J., Xia, Y., Fan, Y., Lin, S., & Wu, J. (2017). Assessment of a green credit policy aimed at energy-intensive industries in China based on a financial CGE model. Journal of Cleaner Production, 163 293-302. https://doi.org/10.1016/j.jclepro.2015.10.111

Parker, M. (2018). The Impact of Disasters on Inflation. Economics of Disasters and Climate Change, 2(1), 21-48. https://doi.org/10.1007/s41885-017-0017-y

Sustainable Stock Exchanges initiative. (2021). Results and impacts 2021 Report. SEE. https://sseinitiative.org/wp-content/uploads/2022/06/2021-results-and-Impact.pdf

World Economic Forum. (2020, November 9). What is green finance and why is it important?. https://www.weforum.org/agenda/2020/11/what-is-green-finance/

BRAND COOLNESS, DESTINATION VALUE, AND BRAND EQUITY: INSIGHT FROM BALI, INDONESIA

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Abstract

This study aims to investigate the interrelationship among brand coolness, destination value, and brand equity in the case of Bali, Indonesia. Questionnaires were used to collect data from 300 domestic tourists who traveled to Bali. Data collection was analyzed by using path analysis. Accordingly, the result showed that brand coolness has a direct influence on destination value. Furthermore, brand coolness directly and indirectly influences brand equity through destination value. As a result, it is anticipated that this study will add to the expanding new knowledge of the literature on destination marketing and city branding. In addition, the outcomes of this research might be used to improve the brand strategies of tourist destinations.

Keywords: brand coolness, destination value, brand equity, destination marketing, city branding

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1. INTRODUCTION

Branding is applicable to goods, companies, and tourism. (Pike & Bianchi, 2016). Both goods and services, as well as tourist destinations, are associated with brands. (Hankinson, 2007). Branding as a marketing strategy has contributed to the success of several well-known tourist destinations (Morgan et al., 2011). Tourists enjoy traveling to "cool" destinations and have a strong desire to visit them since the trips to "cool" destinations look excellent on their social media profiles. Therefore, having a reputation for being "cool" may be a significant benefit for a destination or even a nation. (Kock, 2021). Prior research has shown that a destination's coolness correlates with visitors' intentions to visit, actual visits, intent to suggest, and willingness to spend extra time traveling there. Therefore, branding and the capacity of a destination brand may generate value for consumers. Additionally, brand equity is the measure used to acquire competitive advantage via successful brands and encourages the establishment of entry barriers for competitors. (Gómez et al., 2020). This study investigates the interrelationship between brand coolness, destination value, and brand equity in a case study of Bali, Indonesia.

2. LITERATURE REVIEW

2.1. Brand Coolness

Brand coolness can be described as the Brands are only cool (or uncool) (Gurrieri, 2009) coolness refers to a positive imagination, unique or different by excellence (Mohiuddin et al., 2016), and hedonic value (Im et al, 2015). Cool cities are desirable destinations for all people. Similarly, cities that are not considered cool are often perceived to be dull, and as a result, they need help attracting tourists. Cities that are considered cool are ones that are seen as being genuine, rebellious, original, and energetic (Kock., 2021).

2.2. Destination Value

Destination value is the emotional value that considers a social-psychological component of how a product or service might be used. (Sheth et al., 1991). The emotional value felt by tourists determines their experiences and satisfaction with services. The value notion also contributed to the pleasure of visitors (Lee & Choi, 2011) and experience (Chang., 2014) by having an experienced tour operator, and added value from buying a trip (Williams and Soutar., 2009). The five value perception factors were Functional value, Monetary value, Social value, Novelty value, and Emotional value (Wang et al. 2018).
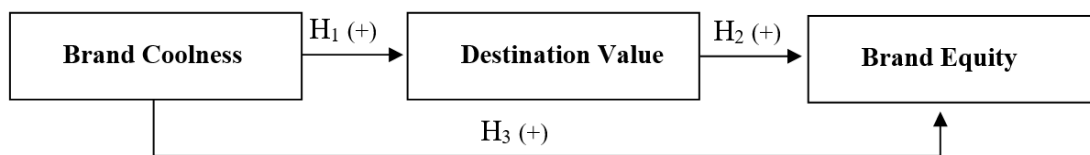
2.3. Brand Equity

Brand equity is the extra value added to a product from its association with a specific brand. (Papadopoulos, 2004). Brand equity is often understood to be the total value that consumers put on a brand relative to its rivals (Gómez et al., 2018). Studies on tourism have developed and

implemented four elements to investigate and measure brand equity, including destination brand awareness, destination brand image, destination perceived quality, and destination brand loyalty. (Tran et al., 2020).

3. CONCEPTUAL FRAMEWORK AND HYPOTHESES

The research hypotheses, the study's conceptual framework, and an illustration of the relationship between brand coolness, destination value, and brand equity. The research hypotheses are depicted in Figure 1.

Figure 1. A conceptual framework and hypotheses of the Study

There are three research hypotheses, tested in this research, including H1: Brand coolness will have a positive relationship with destination value, H2: Destination value will have a positive relationship with brand equity, and H3: Brand coolness will have a positive relationship with brand equity.

4. METHODOLOGY

In this study, the survey questionnaires were deployed as a tool for collecting data. A Likert scale of seven points was utilized, with one point representing "strongly disagree" and seven points representing "strongly agree." This research collected data from a comprehensive survey of 300 domestic tourists who visited Bali. Participants were asked to complete a 58-item questionnaire, which was used in the research. Furthermore, a 7-point Likert scale was used (1= "strongly disagree" and 7 = "strongly agree") which consisted of general tourist information, measures of brand coolness, destination value, and brand equity. Data collection was done at various tourist attractions in Bali, Indonesia. The date range for collecting data using the questionnaire was from October 15 to November 15, 2022. The assumption is that sample selection targeting appropriate audiences in accordance with research aims is sufficient and dependable for a representative sample (Kline, 2016).

The questionnaire was divided into 4 main sections, which are as follows: 1) general tourist information; 2) brand coolness; 3) destination value; and 4) brand equity. The brand coolness component was taken from Kock. (2021) and consisted of 12 questions. The destination value was taken from Wang (2018) and consisted of 20 questions. Finally, the brand equity component was taken from Tran et al. (2020) and consisted of 14 questions. For this measurement, a 7-point Likert scale was employed. Path analysis was the primary method which was conducted to examine the data.

5. RESULTS AND DISCUSSION

Statistical methods utilized in the data were descriptive statistics to adopt IBM SPSS v.28 for finding percentage, mean, and standard deviation values as well as skewness, kurtosis, VIF, and tolerance. Finally, the researchers utilized the AMOS v.28 program for path analysis to investigate the framework and hypotheses.

5.1. Preliminary Data Analysis

The collected data indicated that 56.3% of the population were female and 43.7% were male. 58.7% of the respondents were unmarried. Respondents between the ages of 18 and 29 were the majority with 61%. In terms of educational level, 51.7% of them earned a bachelor's degree. Moreover, 35.3% of them were business employees, and 52.7% of them had a monthly income of less than Rp. 5.000.000. It was discovered that the most common accommodation was hotels with 54% and that most visitors came from western Indonesia, with 43.7% staying in Bali for two to three nights. 27.7% of the tourist respondents went to Bali with their organization's tour group, 26.3% with family, and 18.0% with friends. In addition, 41.3% of them visited Bali for the first time.

Table 1. The results of Cronbach's Alpha

Construct	No .of items	Mean	SD	Cronbach'sAlpha
Brand Coolness (BC)	12	6.09	.053	.085
Destination Value (DV)	20	6.00	0.58	0.92
Brand Equity (BE)	14	6.05	0.55	0.88

Cronbach's Alpha values for the measurement ranged between 0.85 and 0.92, exceeding 0.70. Consequently, the measurements used in this study are within the acceptable level (Hair et al., 2019). The mean values of the questionnaire were between 6.00 and 6.09, and the standard deviation ranged from 0.53 to 0.58 (Table 1). Data skewness values ranged from -0.70 to -0.46 while kurtosis values ranged from 0.39 to 1.33. All of the values for the items ranged between -2 and 2. Consequently, the data were normally distributed (Tabachnik and Fidell, 2019). The results of correlation matrix tests ranged from 0.69 to 0.78, the VIF ranged from 2.33 to 3.15, and the tolerance ranged from 0.32 to 0.43, revealing that there was no evidence of multicollinearity (Stevens, 2009).

5.2. Path Analysis

To investigate and prove the hypothesis about the relationship between brand coolness, destination value, and brand equity, a path analysis was conducted.

Figure 2. The result of path analysis on brand coolness, destination value, and brand equity
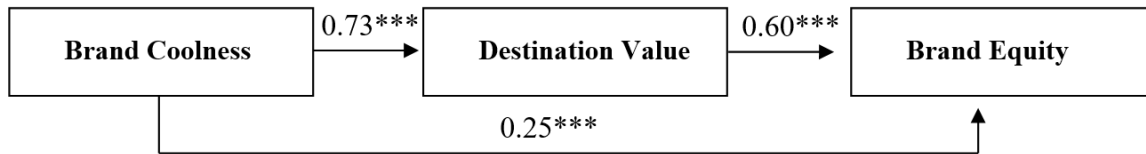
The findings of the path analysis demonstrated consistency with the empirical data when it came to the evaluation of the link between brand coolness, destination brand value, and brand equity. There is a positive relationship between brand coolness and both destination brand and brand equity. Additionally, a positive relationship exists between brand coolness and brand equity (Figure 2).

Table 2. Summary of the findings of the study%

No.	Hypothesis	β	t-value	Result
H1	Brand coolness will have a positive relationship with destination value.	0.73	18.549 ***	Supported
H2	Destination value will have a positive relationship with brand equity.	0.60	11.807 ***	Supported
H3	Brand coolness will have a positive relationship with brand equity.	0.25	5.024 ***	Supported

R^2_{BS}=0.40, R^2_{BE} =0.55
*P < .05, **P < .01, ***P < .001

Table 2 demonstrates that hypotheses H1, H2, and H3 are supported. These estimates are statistically significant (β = .73, P <.001, β = .60, P <.001 and β = .25, P <.00, respectively). All of the hypotheses were validated by the findings, accounting for 54% of the variance in destination value and 64% in brand equity.

The result indicated that brand coolness directly impacts destination value, which is consistent with Kock. (2021). Brand coolness influences brand equity directly and indirectly through destination value, which is consistent with Pimtong. (2021).

6. CONCLUSION

This study revealed that brand coolness has a positive relationship with destination value Moreover, the indirect positive relationship between brand coolness and brand equity is mediated by destination value. The findings of this study contribute to the literature on destination branding and marketing. Additionally, this study's outcomes may be used to strengthen the city branding strategies of tourism destinations.

REFERENCES

Bianchi, C., & Milberg, S. (2016). Investigating non-visitor's intentions to travel to a long-haul holiday destination, *Journal of Vacation Marketing, 23*(4), 339-354.

Chang, S. H., & Wang, K. Y. (2014). Investigating the antecedents and consequences of an overall store price image in retail settings, *Journal of Marketing Theory and Practice, 3*, 299-314.

Gómez, M., Fernández, A. C., Molina, A., & Aranda, E. (2018). City branding in European capitals: An analysis from the visitor perspective. Journal *of Destination Marketing & Management*, *7*, 190-201.

Gurrieri, L. (2009). Cool brands: A discursive identity approach, in *ANZMAC:2009 Sustainable Management and Marketing Conference Proceedings, 1-8.*

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis,* (8th ed.). Pearson Education.

Hankinson, G. (2007). The management of destination brands: Five guiding principles based on recent developments in corporate branding theory. *Journal of Brand Management*, *14*(3), 240-254.

Im S., Bhat, S., & Lee, Y. (2015). Consumer perceptions of product creativity, coolness, value and attitude. *Journal of Business Research, 1*(68), 72-166.

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling,* (4th ed.). Guilford Press.

Kock, F. (2021). What makes a city cool? Understanding destination coolness and its implications for tourism. *Tourism Management*, *86*, 1-16.

Lee, C.-K., Yoon, Y.-S., & Lee, S.-K. (2007). Investigating the relationships among perceived value, satisfaction, and recommendations: The case of the Korean DMZ. *Tourism Management*, *1*(25), 214-204.

Lee, J., Lee, C., & Choi, Y. (2011). Examining the role of emotional and functional values in festival evaluation. *Journal of Travel Research*, *6*(50), 696-685.

Mohiuddin, K. G. B., Gordon, R., Magee, C., & Lee, J. K. (2016). A conceptual framework of cool for social marketing, *Journal of Social Marketing*, *2*(6), 1-12.

Morgan, N., Pritchard, A., & Pride, R. (2011). *Destination Brands: Managing Place Reputation*. Routledge.

Papadopoulos, N. (2004). Place branding: Evolution, meaning and implications. *Place Branding*, *1*(1), 36-49.

Pike, S. & Bianchi, C. (2016). Destination brand equity for Australia: Testing a model of CBBE in short-haul and long-haul markets. *Journal of Hospitality & Tourism Research, 40*(1), 114-134.

Pimtong, H. (2021). The influence of smart tourism applications on perceived destination image and behavioral intention: The moderating role of information search behavior. *Journal of Hospitality and Tourism Management, 46*, 476-478.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). *Consumption Values and Market Choices: Theory and Applications*, Cincinnati: South Western Publishing.

Stevens, J. P. (2019). *Applied Multivariate Statistics for the Social Sciences*, (5th ed.). Routledge.

Tabachnik, B. G. & Fidell, F. S. (2019). *Using Multivariate Statistics*, (7th ed.). Pearson Education.

Tran, P. K. T., Nguyen, V. K., & Tran, V. T. (2020). Brand equity and customer satisfaction: A comparative analysis of international and domestic tourists in Vietnam, *Journal of Product & Brand Management, 30*(1), 180 -194.

Wang, S., Japutra, A., & Molinillo, S. (2020). Branded premiums in tourism destination promotion, *Tourism Review*, *76*(5), 1001-1012.

Wang, W., Yaoyuneyong, G., Sullivan, P., & Burgess, (2018). A model for perceived destination value and tourists' souvenir intentions, *Journal of Applied Marketing Theory, 8*(2), 1-23.

Warren, C., Batra, R., Loureiro, S. M. C., & Bagozzi, R. P. (2019). Brand Coolness, Journal *of Marketing*, *83*(5), 36-56.

Williams, P. & Soutar, G. N. (2009). "Value, satisfaction and behavioral intentions in an adventure tourism context," *Annals of Tourism Research, 36*(3), 413-438.

CURRENT TRENDS AND DEVELOPMENT PERSPECTIVES OF THE ACCOUNTING PROFESSION: A ROADMAP FOR THE FUTURE

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Abstract

The contemporary business environment is faced with constant disruptions and uncertainties, that are consequences of economic pressures, climate changes, geopolitical conflicts, emerging technologies adoption, changing risk landscapes and quests for survival, regulatory changes, and new disclosure requirements, like sustainability reporting, etc., as well as 'new normal' conditions and crisis imposed by the COVID-19 pandemic. All of this is significantly influencing the accounting profession, amongst other economic professions. Therefore, the main aim of this paper was to discuss the current and future transformations that the accounting profession is and will experience in response to constant disruptions in the contemporary business landscape. This discussion resulted in an agenda that contains innovative directions for the profession's existence and success in the uncertain future environment. This paper adopted a critical literature review approach and analyzed selected academic and professional papers that satisfied predefined criteria. As a leading data analysis technique, the authors used interpretive text analysis to identify the most relevant COVID-19 implications on the accounting profession. In order to survive, maintain and upgrade their roles, responsibilities, and positions, accounting professionals need to be familiar with, understand, prepare for, and appropriately adopt new transformational trends and developmental perspectives. The conducted literature review resulted in an overview of different trends affecting the profession in the 21st century, including the adoption of digital technologies and related processes of digitalization. When these trends first appeared and began to change the accounting profession, no one anticipated the emergence of the COVID-19 pandemic, which fundamentally changed

the ways of doing business and working in a very short period. It is clear that existing transformational trends, as well as developmental perspectives, in the accounting profession, are significantly affected by these COVID-19 'new normal' imposed conditions. The findings of this paper provide a better understanding of the new transformational trends and developmental perspectives in the accounting profession, as well as the COVID-19 implications on them. This paper identifies and systematizes the most important contemporary transformational trends and developmental perspectives that are, or will shortly, disrupt the traditional accounting profession as we know it. It also provides an agenda with necessary adaptation processes for the profession to succeed in the future.

Keywords: accounting profession, accountants, digital technologies, COVID-19, competencies, ways of working

1. INTRODUCTION

Accounting is a core business function essential for the successful functioning of every entity, whose roots date back to ancient history. The accounting profession, therefore, is a traditional economic profession whose formal systematical development started somewhere around 19th century, with the development of the first professional accounting bodies (further in text: PABs) and the introduction of accounting courses to universities (Dražić Lutilsky et al., 2010, pp.3-5; Gulin et al., 2019, p.428). Since then until nowadays, the accounting profession has faced numerous challenges and uncertainties, to which it needed to adjust and change accordingly. Through undertaking these transformations, the accounting profession grew, developed, and positioned itself as a critical role player in the corporate governance processes worldwide. Furthermore, accountants positioned themselves from 'back-office clerks' to 'trusted value advisers' of companies' governance structures (Chua, 2013; IFAC, 2020; Leoni et al., 2021; Ng, 2021). Since the beginning of the 21st century, relevant PABs, as well as academia, have begun to raise awareness and particularly draw attention to the changing roles and responsibilities of accounting professionals (e.g., Chua, 2016; ACCA, 2020a; 2020b; Botes et al., 2023, etc.), to new technological and non-technological trends in the accounting profession (e.g., Chua, 2013; Gulin et al., 2019; IFAC, 2020; Saad et al., 2022, Shipway, 2022, etc.), as well as to changing knowledge, skills, and abilities (further in text: KSAs) sets of accounting professionals (e.g., Chua, 2016; Dunbar et al., 2016; ACCA, 2020b; IFAC, 2019; Tsiligiris and Bowyer, 2020, etc.). The modern digital economy era is also characterized by technological disruptions and other uncertainties. Among that, the COVID-19 pandemic and related crisis is undoubtedly the greatest disruption of it all, at least since the Great Influenza pandemic in 1918 (Blood and Hong, 2021a; 2021b; Leoni et al., 2021; Botes et al., 2023). This current pandemic surprised the whole world, as no one expected or even anticipated it. Therefore, companies' governance structures were not adequately prepared to cope with it, but what they could do was promptly react by taking measured steps for recovery and revolutionizing their ways of working (Leoni et al., 2021, p.1307; Ng, 2021, p.653). However, it was much easier to be said than done. In that business environment, the accounting professionals needed to take part of the responsibility, adapt themselves quickly and be among the first ones who help their companies adapt, recover and survive (IFAC, 2020; Leoni et al., 2021; Guo and Pippin, 2022).

Therefore, this paper seeks to provide answers to the following research questions:

1) *What are the main contemporary transformational trends in the accounting profession?*
2) *Did the COVID-19 pandemic have implications for the accounting profession, and how it affected already existing trends?*

From these research questions, the objectives of the paper arose:

1. *to identify the most critical contemporary transformational trends and define how they are impacting the accounting profession*

2. *to determine the implications of the COVID-19 pandemic for the accounting profession*

3. *to identify if these COVID-19 implications are changing already existing transformational trends in the accounting profession*

4. *to define a roadmap for the future of accounting profession where innovative directions for the profession's development are described together with the actions that accounting professionals need to take today to preserve their position in the business world in the future.*

In this paper, the emphasis is on the core accounting profession rather than the whole accountancy profession, which would include also the external and internal auditing professions.

The remainder of the paper is structured as follows. In section two, the paper gives a brief literature overview of current trends in accounting and necessary KSAs for modern accounting professionals. In section three, paper describes the research methodology used for achieving research objectives. Before introducing the concluding remarks of the paper, in section four, the paper discusses the main research results regarding the impact of the COVID-19 pandemic on the accounting profession and provides recommendations for its future development.

2. LITERATURE REVIEW

2.1. The Role of Digitalization in the Accounting Profession

According to ACCA (2012, p.7), forces driving change in the accounting profession are *trust and reporting*, *regulatory expectations*, *standards and practices*, *organizational remit* and *intelligent systems and big data*. Trust and reporting mean that pressures are increasing on the profession to strengthen its public image and to provide a transparent, simplified, and holistic picture of companies' business operations (ACCA, 2012, p.7). Regulatory expectations mean that regulatory requirements are increasing, both at the national and international levels, and require monitoring of their changes that could cause increasing cost of compliance (ACCA, 2012, p.7). Generally accepted accounting standards (such as IFRSs or US GAAPs) are constantly changing due to the efforts of relevant PABs to harmonize accounting practices globally. Organizational remit changes in a way that there is an increasing expectation that the CFO and accounting function should play a far greater role in strategic decision-making processes (ACCA, 2012, p.7). Finally, increasing the application of intelligent systems and big data could transform the operational and interpretative elements of accounting (ACCA, 2012, p.7). The development of information and communication technologies (further in text: ICTs) and digital technologies (further in text: DTs) changes the way of doing business in numerous industries and affects many professions, including accounting. According to Shipway (2022), three major technological trends in accounting are the *automatization of processes*, data-driven *decision-making* and *remote working*.

Accounting is a crucial source of information for owners and managers in the business decision-making process. Accounting information systems enable big data analysis, as well as easier and

faster obtainment of the required information about the company's operations while reducing the costs of obtaining such information. Knowledge of technology and accounting information system is necessary today to perform accounting tasks. "Smart software and systems will replace manual work (such as bookkeeping), automate complex and multifaceted processes (such as financial close), and support the trends towards outsourcing some services and repatriation of others" (Chua, 2016, p.4). The acceleration in adopting DTs is expected to automate a substantial part of accounting tasks (Bughin et al., 2018). The accounting information system generates information promptly for managers to make decisions, thus being included in the information network of the company (Ceran et al., 2016). Using DTs, "accountants will be able to access previously unobtainable data in real-time, improve data quality through greater accuracy and timeliness, and improve assurance of information for decision-making purposes" (Hart, 2017, as cited in Tsiligiris and Bowyer, 2021, p.624). "For these advantages to materialize, accountants need to possess a set of new skills, mainly revolving around data analytics" (Tsiligiris and Bowyer, 2021, p.624). According to ACCA (2020b, p.11), the impact of digitalization on the accounting profession results from five forces: *velocity*, *volume*, *value*, *variety,* and *veracity*. Velocity means that the speed at which the business landscape changes, and companies need to adjust, is dramatically increasing (ACCA, 2020b, p.11). With the increase in the volume of business operations and the company's size, the volume of transactions also increases (ACCA, 2020b, p.11). Moreover, there is a demand from different stakeholders to create value through analysis and prediction from collected data and to provide faster and more relevant support to decision-making (ACCA, 2020b, p.11). Nowadays, technology requires that accountants use various systems, data sources, and project management models (ACCA, 2020b, p.11). Veracity means that stakeholders require reliable, quality, and truthful data as a base for decision-making (ACCA, 2020b, p.11).

Chua (2013) states that the ten major technological trends in accounting include *mobility, cloud, social collaboration, digital service delivery, big data, payment systems, cybersecurity, robotics, augmented and virtual reality* and *artificial intelligence*. Today we could add to this list *blockchain technology*. According to Gulin et al. (2019), the leading digital solutions for accountants are *artificial intelligence*, *blockchain technology*, *continuous accounting,* and *big data*. "Artificial intelligence describes a machine or software that can demonstrate behavior indistinguishable from that of the human brain" (Chua, 2013, p.13). Artificial intelligence can be applied in accounting and auditing processes and reduce the need for human labor, thus greatly transforming accounting practices (PWC, 2018, p.15; Blood and Hong, 2021a). However, it is still in its early stages of development in companies (PWC, 2018, p.15; Blood and Hong, 2021a). Blockchain technology is expected to have a significant impact on the accounting and auditing professions in the future. Blockchain technology is a distributed ledger technology or a "publicly shared database that keeps records of all transactions ever executed within the ecosystem for a specified domain. Using cryptographic algorithms (e.g., digital signature and hash function), the blockchain protocol is able to guarantee data integrity, making it impossible to tamper with the transaction history" (Wang and Kogan, 2018, p.15). Schmitz

and Leoni (2019) analyzed literature, reports, and websites to identify the main themes related to blockchain technology in accounting and auditing by scholars and professionals. They discovered that the main themes debated by scholars and professionals are *governance, transparency and trust*, *continuous audits*, *smart contracts*, and *accountants' and auditors' roles in the emerging ICT's ecosystem* (Schmitz and Leoni, 2019, p.338). According to the same research, blockchain technology brings advantages and disadvantages to the accounting and auditing professions. The main advantage is the increased efficiency in recording, reconciling and auditing accounting data (Schmitz and Leoni, 2019, p.338). It also allows accountants and auditors to cut costs, save time performing these tasks, and it reduces the risks of human errors (Schmitz and Leoni, 2019, p.338). Accountants would then be able to focus on more valuable activities, such as advising on strategy, making in-depth analyses, and data mining (Schmitz and Leoni, 2019, p.338). The potential disadvantage of blockchain technology is the limitation of abilities to detect fraudulent transactions (Schmitz and Leoni, 2019, p.338). Continuous accounting means emerging DTs provide new possibilities for giving information daily (Gulin et al., 2019, p.433). This is very important today because different stakeholders more and more, from the accounting function, require comprehensive statements and financial and non-financial information in real-time. Converting technological trends from analog to digital, internet-connected systems, widespread mobile devices adoption, etc., constantly create vast amounts of structured and non-structured data, i.e., big data (Chua, 2013, p.8). The ability of the accounting function to manage and analyze it effectively leads to better decision-making processes and creates a competitive advantage for the whole company.

Leitner-Hanetseder et al. (2021, p.539) found that tasks, responsibilities, and KSAs for existing professional occupations in the accounting context will be subject to significant changes in the next ten years due to the emerging DTs based on artificial intelligence. While 'core' accounting tasks, responsibilities, and roles will continue to exist in the future, humans will not perform some of them, because they will be automated by artificial intelligence-based technologies (Leitner-Hanetseder et al., 2021). According to Gulin et al. (2019, p.434), the critical effects of digitalization on the accounting profession are seen in adopting leading digital solutions (artificial intelligence, blockchain technology, cloud computing, and big data), performing non-routine and non-structured accounting tasks, while automatizing routine ones, and changing KSAs' sets of contemporary accounting professionals.

2.2. Skills Necessary for Current and Future Accountants

Modern accountants need to possess many KSAs or, said in one word, competencies. It is not enough to have knowledge only in accounting regulations and technical ability to perform accounting tasks. Accountants of today are required to possess numerous other KSAs. Parallel to the development of technologies, the roles and responsibilities of accountants in the business process are changing, as well as the KSAs they need to possess. Tsiligiris and Bowyer (2020) noted that necessary skills for future accountants might be summarized in these four categories:

(1) *ethical skills*, (2) *digital skills*, (3) *business skills,* and (4) *soft skills*, which are further described in *table 1*.

Table 1. Categories and subcategories of skills identified as necessary for future accountants

Ethical skills	Business skills	Soft skills	Digital and data skills
- technical ethical skills - interpersonal ethical skills	- consulting and business advisory - strategic thinking skills	- adaptability - communication - lifelong approach to continuous personal and professional development - critical thinking - dynamic problem solving - emotional intelligence	- basic digital skills - advanced digital skills - data skills

Source: Tsiligiris and Bowyer, 2020, p.631

Adopting emerging DTs in the context of advanced big data analytics results in ethical challenges for the accounting profession (Tsiligiris and Bowyer, 2021, p.631). Therefore, accountants should have technical ethical KSAs that include knowledge of the ethical guidelines and code of conduct of PABs, as well as skills and abilities to apply these guidelines to resolving ethical dilemmas (Tsiligiris and Bowyer, 2021, p.632). Moreover, interpersonal ethical KSAs are also important, and they imply asking the right questions in order to preserve the quality of corporate data (Tsiligiris and Bowyer, 2021, p.632). Reflecting on the anticipated impact of digital transformation, where conventional business strategies and tactical models are disrupted, accountants of the future are seen as potential 'internal business consultants' (IFAC, 2019). Two sets of business skills emerged as key for future accountants: consulting and business advisory KSAs, and strategic thinking (Tsiligiris and Bowyer, 2021). Most reports identified that in the future accountants will be expected to be directly involved in the decision-making process (AICPA and CIMA, 2020), therefore strategic thinking becomes more important. There is an expectation that business vision and intelligence will be even more important than digital KSAs in medium term (ACCA, 2020a). Soft KSAs include interpersonal and communication skills, including the ability to fit in and adapt to the companies' organizational culture. Moreover, important KSAs that accountants today should possess are team working, time management and problem-solving skills. The most frequently cited soft KSAs in accounting job advertisements were communication, teamwork and interpersonal skills (Dunbar et. al, 2016). Among soft KSAs, the most important for accountants are (ACCA, 2020a; 2020b; Tsiligiris and Bowyer, 2020; WEF, 2020):

- *adaptability* – accountants need to be adaptable to the changing ways of working and the challenges emerging from digitally transformed business models
- *communication skills* – accountants need to use compelling '*storytelling'* to communicate complex and diverse data in non-technical and engaging manner
- *critical thinking* – one of the most important future skills for accountants' success in the digital era

- *problem solving* – in a digital context, assumes that accountants need to make decisions under uncertainty and by considering a dynamic set of factors
- *emotional intelligence* – accountants' abilities to identify their own emotions and those of others, harness and apply them to tasks, and regulate and manage them.

According to Tsiligiris and Bowyer (2020, p.633), digital skills for future accountants include:

- *basic digital skills*, such as cloud, standard business intelligence, digitization of tax returns, etc.
- *advanced digital skills*, that incorporate being familiar with newer and more advanced DTs, such as blockchain technology, advanced business intelligence, programming, etc.
- *data skills*, that incorporate data management skills and data analysis.

It is certain that the role of accountants in modern business is changing, which is the result of numerous factors such as globalization, technology development, etc. ACCA (2020, p.43) suggests that career opportunities for future accountants will be something like *assurance advocates*, *business transformers*, *data navigators*, *digital playmakers* and *sustainability trailblazers*. Future roles and responsibilities of accountants will include (Chua, 2016):

1. *audit and assurance*, where an audit of fair value and audit of international groups will be emerging challenges
2. *corporate reporting*, that will include more regulation, increased and more frequent corporate disclosures, and greater awareness of the interconnection of financial and non-financial reporting
3. *financial management*, within which accountants will need to explain financial strategy and performance, defend investments and manage the conflicting expectations of stakeholders
4. *governance, risk and ethics*, where accountants need to become accomplished users of business intelligence and data analytics technologies because this will be essential to better identify, manage and mitigate risks in the business environment
5. in s*trategic planning and performance management* accountants will become more proactive than reactive; they will partner, collaborate and network with a broader range of stakeholders
6. the roles of *tax professionals* will expand and the new challenges will demand a more global perspective and strong collaboration, relationship-building, advocacy and negotiation skills.

3. METHODOLOGY

In order to achieve the research objectives, the authors' desk searched relevant databases (e.g., *Web of Science*, *Scopus*, *ProQuest*, *EBSCO Host*, etc.), as well as *Google Scholar* search engine, in order to obtain relevant scientific papers that satisfied predefined criteria. Furthermore, authors searched, as well, other publicly available secondary sources through *Google* search engine (e.g., websites of PABs, global professional consulting firms, etc.), in order to obtain relevant professional papers and other publications that satisfied predefined criteria. The main criteria for searching papers was that the paper's topic should cover the

impact of the COVID-19 pandemic on the accounting profession and on the accountant's roles, responsibilities, activities and KSAs. The search covered period January 2020 – January 2023.

A preliminary scan of found papers revealed many more professional papers than academic papers. Therefore, authors selected, for critical review, scientific and supportive professional papers that best suited the subject research topic, for which full text was available. English was the primary language of selected papers. Papers were reviewed by applying primarily scientific methods of analysis, synthesis, description, classification and comparison. Like Botes et al. (2023), we also decided to use interpretive text analysis of selected papers' content, as the main data analysis technique, to better discover COVID-19 implications on the accounting profession by identifying the most relevant themes that emerged.

4. RESULTS AND DISCUSSION

4.1. The Overall Impact of the COVID-19 Pandemic on the Accounting Profession

The accounting profession emerged from the COVID-19 pandemic transformed (IFAC, 2020; Papadopoulou and Papadopoulou, 2020; Leoni et al., 2021; 2022; Tsiligiris and Bowyer, 2021; Rinaldi, 2022; Botes et al., 2023). Or as Dai and Vasarhelyi (2016) accurately predicted 'reimagined as accounting 4.0 in the mirror world', not even having then, when writing the article, in mind the COVID-19. In its full sense, industry 4.0 foundations and principles, translated into the accounting profession, came at the spotlight with the pandemic's lockdown. From that time forward, nothing will be returned to the 'old, real, physical world ways of accounting'. 'Mirror world' is enabled by industry 4.0 technologies, like sensors, cyber-physical systems, Internet of Things, Internet of Services, radio-frequency identification, GPS, blockchain technology, data analytics, etc., by which every object in the physical world has its virtual representation in the 'mirror world' (Dai and Vasarhelyi, 2016, pp.5-8). When the lockdown period started in the first quarter of 2020, something similar to 'mirror world', only simpler, was created globally. In the *table 2.* are summarized the most important impacts of the COVID-19 pandemic on the accounting profession or, in other words, trends that were introduced and transformations adopted because of the COVID-19 pandemic outbreak.

Table 2. Accounting profession's trends and transformations due to the COVID-19 pandemic

Accountants' roles and responsibilities	Accountants' KSAs	Accountants' well-being at work	Accounting ways of working	Accounting education
✓ strategic leaders ✓ trusted value advisors ✓ dynamic thinkers ✓ *'storytellers'*	✓ core technical 'accounting in crises' KSAs ✓ business 'conceptual' KSAs ✓ digital KSAs	✓ time pressures ✓ increased level of stress ✓ increased level of anxiety ✓ increased level of insecurity	✓ changed ways of working ✓ remote working ✓ working from home ✓ digitalized processes	✓ change process ✓ remote learning environments ✓ remote teaching and examination at universities

Accountants' roles and responsibilities	Accountants' KSAs	Accountants' well-being at work	Accounting ways of working	Accounting education
	✓ ethical KSAs ✓ interpersonal, networking and communication skills ✓ emotional intelligence ✓ change management abilities ✓ agility	relating to work-related issues ✓ more tasks and responsibilities ✓ new tasks and responsibilities ✓ increased working hours ✓ reduced autonomy ✓ worsen communication with clients ✓ increased need for education and training	✓ business models' digital transformation ✓ cloud accounting ✓ other digital technologies ✓ nurtured existing talent and attracted new talent	✓ remote training by PABs ✓ virtual 'online' education and training ✓ guests professors, lecturers and practitioners from all over the world

Source: Authors' Preparation

Accounting profession's responses to the COVID-19 pandemic included rapid ICTs and DTs adoption, higher emphasis on soft KSAs and integration of technical KSAs with technological and soft KSAs (Botes et al., 2023, p.66). The technologies adoption is related to drastically changing usual ways of working of accountants, under the lockdown period, when they needed, as everyone else, to instantly start working remotely from home (Papadopoulou and Papadopoulou, 2020; Tsiligiris and Bowyer, 2021; Saad et al., 2022; Botes et al., 2023). Accountants were those types of employees for whom it was implied, as a general rule, that they needed to work onsite in the company's headquarters, as a must. Therefore, the shift to online and remote working from home was a tremendous disruption for the profession. There were lots of problems and obstacles in the process, like not having the right ICTs and other means available for working remotely, either by accountants, either by their clients, etc. (Papadopoulou and Papadopoulou, 2020; Botes et al., 2023). Those obstacles would be very hard to bypass quickly in the ordinary, business-as-usual working conditions, but in the lockdown conditions, this had to be passed instantly, because the opposite situation simply was not an option. When that was solved, new concerns regarding cybersecurity arisen (IFAC, 2020, p.3). Due to the pandemic, accountants have accustomed to digital processes that was once thought impossible (IFAC, 2020, p.2). So, accountants, who were in the past known as conservative and reluctant to quickly adopting new technologies, in the lockdown adopted ICTs and DTs without major problems and typical resistance they have towards it, because there was no time to think and the action had to be done immediately. Accountants' abilities to adopt and use DTs, as well as to apply soft KSAs, positively affect their employability and transform the accounting function from a transaction-based to a value-adding one (Tsiligiris and Bowyer, 2021, p.641). Even though many examples exist in the history of the accounting profession

failures, this crisis is a positive example when the accounting profession succeeded by transforming quickly and being at the forefront of the countries', governments', entities' and individuals' adaptation, recovery, and survival. This helped renew and grow stakeholders' trust in the profession (IFAC, 2020, p.5), which has to be preserved and continued to be grown in the future.

Results of the analyzed papers also showed that accountants' tasks, roles and responsibilities have grown in the advisory capacity during the COVID-19 pandemic, and lockdown especially. The main aim of accounting is "to provide financial and non-financial information for decision-makers and so ought to play a strategic role to inform business decisions in the pandemic" (Ng, 2021, p.653). Therefore, accounting professionals became strategic leaders, trusted advisers, value partners or 'chief future officers' of companies' governance structures (IFAC, 2020; Leoni et al., 2021; Ng, 2021; Tsiligiris and Bowyer, 2021; Rinaldi, 2022; Saylor; 2022; Botes et al., 2023). Carnegie et al. (2023) introduced the notion that accounting is not anymore merely a technical practice, but a multidimensional technical, social and moral practice through which accountants can shape a better world. In these advisory roles, accountants' future-proofed soft KSAs and agility, among others, are emphasized (IFAC, 2020, p.2; Botes et al., 2023, p.77). Moreover, industry 4.0 and pandemic conditions require from accountants of today and those of the future the need to possess an optimal balance of hard, soft and ethical KSAs or, in other words, a right balance of competencies. The accounting profession is of a crucial importance in the crisis periods, like the COVID-19 pandemic, as well as other natural or humanitarian disasters', to countries, governments, entities and society as a whole (IFAC, 2020; Papadopoulou and Papadopoulou, 2020; Leoni et al., 2021; 2022; Rinaldi, 2022; Ng, 2021). Accounting practices enable all entities to 'keep the pandemic under control', by increasing the visibility of and being at "the intersection among alternative values and needs, such as fairness, social equity, global, national and individual health", but there also exist "critical issues and drawbacks" (Leoni et al., 2021, p.1310). Accountants have been oriented towards helping companies' governance structures to understand the financial effects of the COVID-19 crisis, which emphasized their role as the co-creators of business value (Botes et al., 2023, p.77). Accountants should serve its stakeholders as '*storytellers*' by communicating how the value is created, explaining the performance beyond general financial reports, guiding the narratives regarding the likely effects of managerial decisions and visualizing the financial and operational requirements of future initiatives (Ng, 2021, p.653).

"As a profession, we cannot passively accept change; we must seize the opportunities change creates while also anticipating and mitigating risks. We have the guiding principles to do this, and international standards with regards to financial reporting, audit and assurance, ethics, public sector, and, hopefully soon, sustainability" (IFAC, 2020, p.4). Accountants need to adjust their actions and reactions to the stage of economic development, and cannot act in the same manner in the upward and downward scenarios. Accounting frameworks and regulations need to be adapted for crises, because guidance that are designed for business-as-usual

conditions may not be effective in unusual conditions (Leoni et al., 2022, Rinaldi, 2022). Ng (2021) proposes a framework for accounting roles (i.e., *idea creation machine*, *dialogue machine*, *learning machine*) for all crisis' phases for entity's survival, recovery and revolution.

4.2. Recommendations for the Accounting Profession's Future Development

Accounting functions need to transform their business-as-usual activities by accelerating hybrid ways of working, adopting innovative technologies and digitalizing their business processes (IFAC, 2020; Papadopoulou and Papadopoulou, 2020; Leoni et al., 2021; 2022; Tsiligiris and Bowyer, 2021; Rinaldi, 2022; Saad et al., 2022; Botes et al., 2023). Furthermore, they need to develop trust-building relationships with their key partners and stakeholders, as well as add value by providing authentic and engaging communication (IFAC, 2020; Ng, 2021). To be successful, their talent management strategies also need to be updated, by adopting non-traditional staffing strategies, like offshoring, outsourcing, fractional staffing, hiring retirees and stay-at-home moms, as well as throughout hybrid working practices' benefits from hiring diverse talent from different geographies (Saylor, 2022).

Trends in online (virtual) and hybrid education at universities have occurred a long before the COVID-19 pandemic outbreak, but just a few ones fully adopted and incorporated it in their business models. Therefore, the COVID-19 pandemic accelerated the adoption of digital approaches to teaching and assessments in accounting courses and revolutionized the universities' practices (IFAC, 2020; Ng, 2021; Tsiligiris and Bowyer, 2021; Botes et al., 2023; Carnegie et al., 2023). PABs also embraced online (virtual) ways of training due to the COVID-19 pandemic (IFAC, 2020; Botes et al., 2023). Online and hybrid teaching practices raised the demand for different (digital) skills and equipment, reduced the importance of lecture theatres, and accelerated the already existing trend of declining in-class attendance (Ng, 2021, p.660). Therefore, the benefits of remote learning and training, like no need for physical classrooms, connectivity through modern ICTs and DTs, sharing and receiving knowledge from the world best professors, lecturers and practitioners, etc., should be adopted and incorporated in 'new ways of education'. There should also be more partnering in education and training between universities, PABs and practitioners around the globe.

When accountants finish their initial professional development, they must continually upgrade their KSAs throughout continuing professional development. In the contemporary era, changes, developments and enhancements to the higher education curriculums (i.e., initial professional development), professional credentialing and other training programs (i.e., continuing professional development) are inevitable (IFAC, 2020; Tsiligiris and Bowyer, 2021; Mbizi et al., 2022; Botes et al., 2023; Carnegie et al., 2023). Therefore, modern accountant needs to have a well-rounded, interdisciplinary and future-proofed KSAs' set that combines core technical 'accounting', business 'conceptual', digital, ethical and soft 'interpersonal' KSAs that are rooted in critical thinking, problem-solving, (big) data analytics, relationship-building and communication KSAs (IFAC, 2020; Tsiligiris and Bowyer, 2021; Mbizi et al., 2022; Saylor,

2022; Botes et al., 2023; Carnegie et al., 2023). The emphasis is especially on agility, emotional intelligence and change management, as well as, on the new business and regulatory issues whose importance is arising every day, like sustainability, cybersecurity, digital trust and fraud, crisis management, etc. (IFAC, 2020; Tsiligiris and Bowyer, 2021; Mbizi et al., 2022; Saylor, 2022; Botes et al., 2023; Carnegie et al., 2023).

The key recommendations for accounting profession's future development that need to be considered and undertaken by academia, PABs and accounting professionals due to the fourth industrial revolution and the COVID-19 pandemic crisis are summarized in the *table 3*.

Table 3. The key recommendations for accounting profession's future development due to the industry 4.0 conditions and the COVID-19 pandemic

Accounting function's 'to do' list	Accounting education imperative	Future accountants' KSAs
✓ to accelerate new, hybrid ways of working ✓ to adopt innovative ICTs and DTs ✓ to digitalize accounting processes ✓ to develop trust-building relationships with key stakeholders ✓ to add value by providing authentic and engaging communication ✓ to adopt and accelerate non-traditional staffing strategies (e.g., offshoring, outsourcing, fractional staffing, hiring retirees and stay-at-home moms) ✓ to hire diverse talent from different geographies	✓ to postulate optimal or right balance of technical, conceptual, digital, ethical and soft KSAs ✓ to transform the infrastructure and create dynamic curriculums ✓ to establish partnering relationships for improving education and training between academia, PABs, educators and practitioners around the globe ✓ to develop agile credentialing programs, dynamic onsite, hybrid and/or online education and training programs ✓ to continually professionally develop and upgrade accountants' KSAs	✓ future-proofed and agile KSAs ✓ core technical 'accounting' KSAs ✓ business 'conceptual' KSAs ✓ digital KSAs ✓ ethical KSAs ✓ soft 'interpersonal' KSAs ✓ critical thinking and complex problem-solving KSAs ✓ relationship-building and communication skills ✓ teamwork skills ✓ emotional intelligence ✓ change management abilities ✓ digital trust and integrity ✓ environmental, social and corporate governance (ESG) framework ✓ cybersecurity skills ✓ and other emerging KSAs areas in uncertain, crisis times

Source: Authors' Preparation

As Carnegie et al. (2023, pp.12-13) remarked, future of accounting is not merely about accountants just technically applying prescribed accounting techniques, concepts, procedures and generally accepted practices, but on their activities that impact social and moral side of businesses. *Accounting as a social practice* considers the implications of accounting activities on entities, government, society, environment, or the whole planet (Carnegie et al., 2023, p.13). Last, but not least, *accounting as a moral practice* is vital because morality is at its core as "it is a practice whose actions and inactions affect others, now and in the future. It contributes to shaping the moral order and accountability infrastructures of organizations and society,

reflected in the overarching responsibility to act in the public interest and accord with the *Code of Ethics for Professional Accountants*" (Carnegie et al., 2023, p.12).

5. CONCLUSION

Today, the accounting profession is particularly impacted by the emerging DTs, which digitalize and automate accounting processes and significantly affect how accountants use, analyze, share, and access information. Accountants have always needed to adjust to disruptions in the business environment since all business transactions 'flow' into the accounting information systems, where they should be adequately recorded and analyzed. Parallel to the development of technology, the tasks, roles, responsibilities, and KSAs of accountants are changing. In the past, the main role of an accountant was to record transactions and to prepare financial statements. Nowadays, the role of an accountant is that of a 'dynamic thinker' who adds value to a company.

The COVID-19 pandemic outbreak fundamentally changed established ways of accounting. Its implications for the accounting profession are multiple. It can be concluded that already existing transformational trends and developmental perspectives in the accounting profession were significantly affected by the COVID-19 'new normal' imposed conditions. Accountants' tasks, roles, and responsibilities changed drastically, and have grown primarily in the advisory capacity. Accountants emerged from the pandemic reimagined as a 'trusted value advisers and partners' of company's governance structures. Stakeholders renewed their trust in the accounting profession. Accountants' KSAs changed and now include different KSAs beyond just core technical 'accounting' KSAs. Accounting function's leaders need to manage their employees' well-being at work effectively. 'New normal accounting ways of working' are unimaginable without some DTs adoption. Accounting education is also disrupted, from online and hybrid learning practices, to dynamic credentialing and guest lecturers from all around the globe.

The COVID-19 pandemic significantly emphasized the importance of previously initiated digitalization processes and ICT's adoption in the accounting profession. Furthermore, new KSAs' acquisitions are of high importance for contemporary accountants, so academia and PABs need to change existing, in one-way, outdated education curriculums and training programs. Therefore, the COVID-19 pandemic did not just change already existing transformational trends and developmental perspectives in the accounting profession, but it accelerated their introduction, adoption and usage at warp speed.

The future research should apply a systematic literature review research methodology in order to better treat the limitations of the present research methodology by including more papers in the analysis, as well as, due to the time-lapse, extending covered period of analysis.

REFERENCES

ACCA (2012). "*100 Drivers of Change for the Global Accountancy Profession*", The Accountancy Futures Academy, retrieved from https://www.accaglobal.com/pk/en/technical-activities/technical-resources-search/2012/september/100-drivers-of-change.html [January 14, 2023]

ACCA (2020a). "*Future Ready: Accountancy Careers in the 2020s*", retrieved from https://www.accaglobal.com/in/en/professional-insights/pro-accountants-the-future/future_ready_2020s.html [January 14, 2023]

ACCA (2020b). "*The Digital Accountant: Digital Skills in a Transformed World*", retrieved from https://www.accaglobal.com/in/en/professional-insights/technology/The_Digital_Accountant.html [January 14, 2023]

AICPA & CIMA (2020). *Building Finance Resiliency and Returning the Business to Scale*, Agile Finance Reimagined, retrieved from https://contentcrowd.com/categories/digital/building-finance-resiliency-and-returning-the-business-to-scale/5f630e27edafd645816eb819 [January 14, 2023]

Blood, B., & Hong, E. (2021a). "*The Accountancy Profession in the New Normal*", Developing the Accountancy Profession, IFAC, February, retrieved from https://www.ifac.org/knowledge-gateway/developing-accountancy-profession/discussion/accountancy-profession-new-normal [January 13, 2023]

Blood, B., & Hong, E. (2021b). "*The Accountancy Profession: This Way Forward*", Developing the Accountancy Profession, IFAC, September, retrieved from https://www.ifac.org/knowledge-gateway/developing-accountancy-profession/discussion/accountancy-profession-way-forward [January 13, 2023]

Botes, V., Davey, H., Esposo, D., & Smit, B.R. (2023). How accountants responded to the financial fallout owing to the COVID-19 pandemic. *Pacific Accounting Review, 35*(1), 66-85. https://doi.org/10.1108/PAR-09-2020-0177

Bughin, J., Hazan, E., Lund, S., Dahlström, P., Wiesinger, A., & Subramaniam, A. (2018). "*Skill Shift: Automation and the Future of the Workforce*", McKinsey Global Institute, May, retrieved from https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce [January 16, 2023]

Carnegie, G.D., Gomes, D., & McBride, K. (2023). COVID-19 and accounting as multidimensional technical, social and moral practice: A framework for future research. *Meditari Accountancy Research, 31*(1), 1-26. https://doi.org/10.1108/MEDAR-10-2022-1826

Ceran, M.B., Güngör, S., & Konya, S. (2016). The role of accounting information systems in preventing the financial crises experienced in businesses. *Economics, Management and Financial Markets, 11*(1), 294-302.

Chua, F. (2013). "*Technology Trends: Their Impact on the Global Accountancy Profession*", The Accountancy Futures Academy, ACCA, retrieved from https://www.accaglobal.com/uk/en/technical-activities/technical-resources-search/2013/may/technology-trends.html [January 13, 2023]

Chua, F. (2016). "*Professional Accountants – The Future: Drivers of Change and Future Skills*", retrieved from https://www.accaglobal.com/an/en/technical-activities/technical-resources-search/2016/june/professional-accountants-the-future-report.html [January 13, 2023]

Dai, J. and Vasarhelyi, M. A. (2016). Imagineering Audit 4.0. *Journal of Emerging Technologies in Accounting, 13*(1), 1-15. https://doi.org/10.2308/jeta-10494

Dražić Lutilsky, I., Gulin, D., Mamić Sačer, I., Tadijančević, S., Tušek, B., Vašiček, V., Žager, K., & Žager, L. (2010). *Računovodstvo*, HZRIF, Zagreb.

Dunbar, K., Laing, G., & Wynder, M. (2016). A content analysis of accounting job advertisements: Skill requirements for graduates. E-Journal *of Business Education and Scholarship of Teaching, 10*(1), 58-72.

Gulin, D., Hladika, M., & Valenta, I. (2019). Digitalization and the challenges for the accounting profession. *ENTRENOVA, 5*(1), 428-437. https://hrcak.srce.hr/251037

Guo, S.Y. and Pippin, S.E. (2022). "*The Accounting Profession and the Pandemic*", The CPA Journal, February, retrieved from https://www.cpajournal.com/2022/02/23/the-accounting-profession-and-the-pandemic/ [January 14, 2023]

Hart, L. (2017). "*How Industry 4.0 Will Change Accounting?*", Journal of Accountancy, AICPA, September, retrieved from https://www.journalofaccountancy.com/Newsletters/2017/Sep/Industry-4-0-Change-Accounting.html [January 14, 2023]

IFAC (2019). "*Future-Fit Accountants: CFO & Finance Function Roles for the Next Decade*", retrieved from https://www.ifac.org/system/files/publications/files/IFAC-Future-Fit-Accountant-ROLES-V5-Singles.pdf [January 10, 2023]

IFAC (2020). "*Accountancy Skills Evolution: Impact of COVID-19 & The Path Forward*", retrieved from https://www.ifac.org/system/files/publications/files/IFAC-Accountancy-Skills-Evolution.pdf [January 10, 2023]

Leitner-Hanetseder, S., Lehner, O.M., Eisl, C., & Forstenlechner, C. (2021). A profession in transition: actors, tasks and roles in AI-based accounting. *Journal of Applied Accounting Research, 22*(3), 539-556. https://doi.org/10.1108/JAAR-10-2020-0201

Leoni, G., Lai, A., Stacchezzini, R., Steccolini, I., Brammer, S., Linnenluecke, M., & Demirag, I. (2021). Accounting, management and accountability in times of crisis: Lessons from the COVID-19 pandemic. *Accounting, Auditing & Accountability Journal, 34*(6), 1305-1319. https://doi.org/10.1108/AAAJ-05-2021-5279

Leoni, G., Lai, A., Stacchezzini, R., Steccolini, I., Brammer, S., Linnenluecke, M., & Demirag, I. (2022). The pervasive role of accounting and accountability during the COVID-19 emergency. *Accounting, Auditing & Accountability Journal, 35*(1), 1-19. https://doi.org/10.1108/AAAJ-10-2021-5493

Mbizi, R., Sifile, O., Gasheja, F., Twesige, D., Gwangava, E., Makurumidize, S., Matowanyika, K., Chinofunga, S., & Sunday, K. (2022). Accountants in Africa and the evolving Fourth industrial revolution (4IR): Towards a Competency Framework. *Cogent Business & Management, 9*(1), 2117153, https://doi.org/10.1080/23311975.2022.2117153

Ng, F. (2021). Accounting at your service: University survival, recovery and revolution from COVID-19. *Pacific Accounting Review, 33*(5), 652-664. https://doi.org/10.1108/PAR-09-2020-0172

Papadopoulou, S., & Papadopoulou, M. (2020). The accounting profession amidst the COVID-19 pandemic. *International Journal of Accounting and Financial Reporting, 10*(2), 39-59. https://doi.org/10.5296/ijafr.v10i2.17001

PWC (2018). "*Digitalisation in Finance and Accounting and What it Means for Financial Statement Audit*", retrieved from https://www.pwc.de/de/im-fokus/digitale-abschlusspruefung/pwc-digitalisation-in-finance-2018.pdf [January 10, 2023]

Rinaldi, L. (2022). Accounting and the COVID-19 Pandemic Two Years On: Insights, Gaps, and an Agenda for Future Research. *Accounting Forum,* https://doi.org/10.1080/01559982.2022.2045418

Saad, M., Lutfi, A., Almaiah, M.A., Alshira'h, A.F., Alshirah, M.H., Alqudah, H., Alkhassawneh, A.L., Alsyouf, A., Alrawad, M., & Abdelmaksoud, O. (2022). "Assessing the intention to adopt cloud accounting during COVID-19. *Electronics 11*(24), 4092. https://doi.org/10.3390/electronics11244092

Saylor, T. (2022). "*The Trends that Will Affect CPAs in 2023*", Journal of Accountancy, retrieved from https://www.journalofaccountancy.com/issues/2022/dec/trends-that-will-affect-cpas-in-2023.html [January 10, 2023]

Schmitz, J., & Leoni, G. (2019). Accounting and auditing at the time of blockchain technology: A research agenda. *Australian Accounting Review, 29*(2), 331-342. https://doi.org/10.1111/auar.12286

Shipway, P. (2022). "*Three Technology Trends to Watch in Accounting and What They Mean for CAs*", ICAS, May, retrieved from https://www.icas.com/news/three-technology-trends-to-watch-in-accounting-and-what-they-mean-for-cas [January 16, 2023]

Tsiligiris, V., & Bowyer, D. (2021). Exploring the impact of 4IR on skills and personal qualities for future accountants: A proposed conceptual framework for university accounting education. *Accounting Education, 30*(6), 621-649, https://doi.org/10.1080/09639284.2021.1938616

Wang, Y., & Kogan, A. (2018). Designing confidentiality-preserving blockchain-based transaction processing systems. *International Journal of Accounting Information Systems, 30*, 1-18. https://doi.org/10.1016/j.accinf.2018.06.001

WEF (2020). "*The Future of Jobs Report: 2020*", World Economic Forum, October, retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf [January 16, 2023]