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NEUROMARKETING IN RETAIL: STATUS QUO, BEST-PRACTICE EXAMPLES AND CRITICAL APPRAISAL

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Abstract

Neuromarketing is already relatively advanced when it comes to researching the principle effect of marketing in the brain. What is often still missing, however, is the transfer of these findings into practice. The reason for this is that research has so far primarily pursued the question of `why?´. For practice, however, the question of `how?´ is much more relevant. This article attempts to answer the latter question, i.e. to bridge the gap between research and practice in the field of retail marketing. Is there a buy button in the consumer's brain? And if so, how can it be activated? Neuromarketing is a young discipline at the interface of cognitive science, neuroscience and market research. Due to technological progress, neuromarketing can provide important insights for retail, especially insights to explain consumer behaviour. By looking into the customer's brain, retail companies can address their customers in a more targeted manner and thus gain an advantage over competitors. Especially the influence of emotions and the unconscious play a major role in the purchase decision of consumers. Using the limbic map, customers can be clustered into types based on the characteristics of their emotional systems, for which specific marketing measures can be derived. Best-practice examples from the retail sector show that a targeted approach to specific shopping types in retail can lead to success.

Keywords: neuromarketing, consumer behaviour, brain research, limbic system, shopping

INTRODUCTION

Since time immemorial, manufacturers and retailers of products have been asking themselves what influences customers' purchasing decisions (Konrad, 2013). Emotions in particular play a major role, as no decision is made without emotions (Kenning, Plassmann & Ahlert, 2007). Not to be neglected in the purchase decision is the unconscious perception, because most decisions are made unconsciously. The influence of the unconscious is particularly important in the influence of advertising on the consumer (Scheier & Held, 2018; 2012). In order to examine the influences of emotions and unconscious perception, it has to be considered where these are anchored: in the human brain. For this reason, modern market research uses the methods of neuroscience to make processes in the brain visible (Nufer, 2020; Nufer & Sauer, 2015). However, research on neuromarketing is still comparatively in its infancy and in many areas has so far been more of a basic character (Kenning, 2016).

In this article, the basics of neuromarketing are presented and the status quo of innovative market research using neurophysiological methods is presented. It illustrates which emotion systems exist in humans and how customers differ in their personalities. The focus of this article is to answer the research question of how neuroscientific findings can be implemented in retail marketing. Therefore, various best-practice examples from retail practice are presented and discussed. Finally, the opportunities and limitations of neuromarketing are summarised.

DEFINITIONS

Neuroscience

The term neuroscience is understood to mean "a complex scientific discipline that brings together and integratively interprets all investigations into the structure and function of nervous systems" (Spektrum, 2021). Neuroscience attempts to decipher the functioning of the human brain through modern scientific methods. With the help of such methods, neuroscience has been able to gain numerous insights into the human brain in recent years that are of great importance for marketing (e.g. Dooley, 2013; Bühler, Häusel & Nufer, 2013; Bielefeld, 2012).

Neuroeconomics

For a long time, science was dominated by the assumption that people make rational and fully conscious decisions (Wells & Martin, 2017). In the meantime, however, this picture has been shaken, as studies have shown that a person's decision-making is strongly influenced by situational information and social preferences (e.g. Krampe et al., 2018; Fuchs, 2015; Bittner & Schwarz, 2015; Reimann & Weber, 2011). For this reason, the influences on people that affect them when making economic decisions, such as purchasing decisions, were investigated. Neuroscience, i.e. research into the human brain, is of particular importance here. If one combines the two scientific fields of economics and neuroscience, one speaks of neuroeconomics. Neuroeconomics is the "description and explanation of human behaviour in economic decision-making situations with the methodological support of neuroscience" (Reimann & Weber, 2011).

Neuromarketing

Neuromarketing is a subfield of neuroeconomics. When defining neuromarketing, a distinction can be made between a narrow and an extended definition. The narrow definition describes neuromarketing as the "use of apparative methods of brain research for marketing purposes" (Häusel, 2019a). According to the extended definition, neuromarketing is understood as a discipline that makes use of "apparative methods and findings of brain research for marketing purposes" (Häusel, 2019a). For example, existing marketing theories are analysed and confirmed or refuted through the use of imaging methods. Neuroscience can make an important contribution, particularly with regard to the analysis of customers' purchasing decisions, and help to better understand the customer (Yoon et al., 2012; Nufer & Wallmeier, 2010).

INNOVATIVE MARKET RESEARCH WITH NEUROPHYSIOLOGICAL METHODS

Technological progress in brain research offers new options for market research: Neuromarketing uses imaging scientific methods to make the activities of the human brain visible and measurable. These are electrophysiological methods (e.g. EEG, MEG) on the one hand and metabolic methods (e.g. PET, fMRI, fNIRS) on the other (Kenning, 2016; Häusel, 2019c).

Electroencephalography

Electroencephalography (EEG) uses electrodes to measure voltage fluctuations on the surface of the brain. This allows direct conclusions to be drawn about brain activity. It is possible to determine exactly in which order areas of the brain are activated. However, the high temporal precision is at the expense of spatial resolution, as activity can only be measured from the top of the skull.

Magnetoencephalography

Magnetoencephalography (MEG) measures the magnetic activity of the brain. Sensors are attached to the subject's head that record magnetic signals from the brain. These signals are generated by electrical currents that occur when nerve cells are active. The advantage of MEG is that it can show brain activity in real time and in three dimensions. It can also map deeper brain structures that are important for unconscious and emotional decisions, among other things.

Positron emission tomography

Positron emission tomography (PET) is a nuclear medical method that can be used to examine metabolic processes. The method is not without controversy because healthy test persons have to ingest a weakly radioactive contrast medium. Detectors can be used to determine where increased activity occurs in the brain. Images are calculated by computer from the measured data, on which the activated areas can be distinguished from the less active ones. The method allows a very good spatial resolution.

Functional magnetic resonance imaging

With functional magnetic resonance imaging (fMRI) it is also possible to visualise activated brain structures. This is achieved by measuring metabolic activities in the brain and analysing the oxygen content in the blood. Active brain regions need more oxygen than

inactive ones. The active brain areas then light up in colour during imaging. This makes it possible to find out which brain regions are active, for example, while watching a commercial.

Functional near-infrared spectroscopy

Functional near-infrared spectroscopy (fNIRS) is a further development of fMRI. The measurements are based on the fact that the red blood pigment haemoglobin, which is the main oxygen transporter in the body, changes its colour with the oxygen content. Thus, the haemoglobin or blood concentration can be determined based on the translucency of the tissue and the oxygen content can be determined based on the colour. The measurements are non-invasive and painless. Near-infrared light is harmless in the intensities used. The technology has developed considerably in recent years, so that today reliable, quantitative measurements and imaging are possible.

EXPLANATION OF CONSUMER BEHAVIOUR WITH INSIGHTS FROM NEUROMARKETING

Limbic system

The most important factors influencing human behaviour and decision-making are emotions and the unconscious. Approximately 70-80% of decisions are made unconsciously (Koller, 2016). Biologically, emotions are described as the inner drives of humans that influence their behaviour in order to ensure survival.

All emotions have certain characteristics: They often express themselves as feelings (e.g. anger or joy), they are usually accompanied by a certain facial expression, they trigger cognitive and motor reactions in the body (e.g. flight). Emotion systems consist of a reward and a punishment system and emotions can have different intensities (Häusel, 2019b; 2011).

But how are emotions processed in the brain? Science assumes that emotions are processed in the limbic system. The main components of the limbic system are the amygdala (emotional evaluation of objects), the hypocampus (emotional learning centre), the hypothalamus (execution of reactions) and the nucleus accumbens (activates `want to have´ actions).

Limbic Map

According to Häusel's limbic approach (2019b), the human emotion system consists of three subsystems: The balance system (safety, risk avoidance), the dominance system (assertiveness, power) and the stimulant system (adventure). These are complemented by other systems such as attachment, caring, sexuality, etc. The three major systems of balance, dominance and stimulant are interrelated. Dominance and stimulant are very much oriented towards risk, while the balance system tries to avoid it.

The interaction of the systems is graphically illustrated by the limbic map (Figure 1). In addition to the main systems, it also shows their mixtures. For example, the mixture of dominance and balance represents discipline and control. Furthermore, values are also integrated into the limbic map (e.g. diligence or creativity), since values are also emotionally charged.

Figure 1: Limbic Map (Adopted from: Häusel, 2019d; used with permission)

Limbic Types

Motives play a central role in making purchasing decisions. Motives are demands or expectations that consumers have of a product. These expectations result from the current state of our emotional system. A distinction is made between ego motives (personal perspective) and social motives (societal perspective) (Häusel, 2011).

Not only motives but also personality dimensions can be derived from the limbic approach. The reason for the different personalities of people are the different characteristics of the three main systems (dominance etc.) and their submodules. Since the characteristics are individual for each person, the limbic approach distinguishes types to describe consumers (Häusel, 2019b; 2011):

- Harmonizer: High social and family orientation; lower upward and status orientation, desire for security.
- Candid: Openness to new things, feeling good, tolerance, gentle enjoyment.
- Hedonist: Active search for new things, high individualism, high spontaneity.
- Adventurer: High willingness to take risks, low impulse control.
- Performer: High achievement orientation, ambition, high status orientation.
- Disciplined: High sense of duty, low consumerism, love of detail.
- Traditionalist: Low future orientation, desire for order and security.

Figure 2 shows the distribution of the limbic types in Germany.
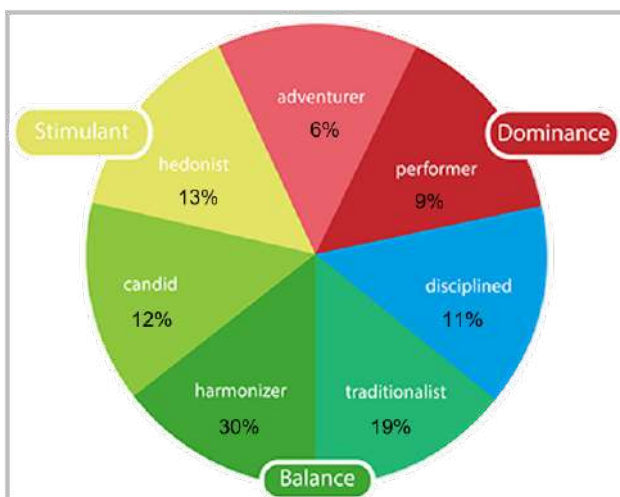
Figure 2: Distribution of Limbic Types in Germany
(Adopted from: Häusel, 2011; used with permission)

BEST-PRACTICE EXAMPLES FOR EMOTIONAL SHOPPING WORLDS IN RETAILING

With the help of the limbic map, different emotional shopping worlds can be differentiated in retail: controlled shopping, efficient & power shopping, inspirational shopping, experiential shopping and exclusive shopping.
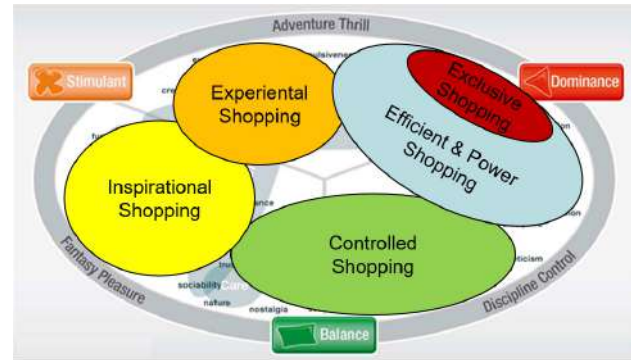
Figure 3: Consumers´ Shopping Worlds

In Figure 3, the different shopping worlds are positioned in the limbic map. They are characterised in more detail below. For this purpose, a selected case study from retail marketing is presented, analysed and critically evaluated for each type.

Controlled Shopping: Aldi Süd

Controlled shopping belongs to the system of balance. When shopping, customers with a high degree of the balance system want to feel secure and avoid stress and risk.

Aldi Süd fulfils these expectations in many areas, from shop layout to pricing. This is also implied in the corporate philosophy, which includes a focus on the essentials as well as a simple, clear and consistent implementation of concepts. It is reflected in numerous areas of the company. Even from the outside, an Aldi Süd shop appears clean, tidy and functional. The same applies to the shop layout (Figure 4): The shelves are not too high, the aisles are relatively wide and the customer guidance is simple and structured (Aldi Süd, 2021a).

Figure 4: Aldi Süd shop layout
(Source: Aldi Süd, 2021b)

Since the balance system is afraid of too much choice, Aldi Süd's comparatively overseeable assortment is perfectly suited to it. Since the controlled shopper also tries to avoid risk, the high product quality at Aldi Süd also plays an important role.

It should be critically noted that Aldi Süd, for example, is increasingly distancing itself from its roots as a hard discounter through the constant expansion of its assortment (e.g. inclusion of brand-name articles) and thus diluting the principles of controlled shopping.

Efficient & Power Shopping: Media Markt

In contrast to the manageable and pleasant shopping of controlled shopping, efficient & power shopping, which is assigned to the dominance system, is about getting as many choices as possible for a small price with a small expenditure of time.

No retailer fulfils these expectations better than Media Markt with its aggressive and price-oriented advertising. The architecture of a shop already shows which goals are being pursued (Figure 5). The focus is on a sales area that is as large as possible but still functional. The colours red and black used here represent the aggressive price policy (Media Markt, 2021a).

Figure 5: Exterior view of a Media Markt store
(Source: Media Markt, 2021b)

The target group of Media Markt attaches great importance to a huge selection, which is implemented by Media Markt through an assortment of over 45,000 articles. Since Media Markt customers are mostly hedonists and adventurers, they want a large selection at low prices. Media Markt therefore often entices them with eye-catching and seemingly unbeatable offers.

The advertising campaign `Media Markt versus Saturn – who is better?´ fits the dominance system. However, it is not immediately comprehensible why the parent company Metro is thus counteracting its proven multi-brand strategy (many consumers previously considered the subsidiaries Media Markt and Saturn to be fierce competitors).

Inspirational Shopping: Depot

In the limbic map, inspirational shoppers are classified between stimulant and balance, which corresponds to the values of fantasy and pleasure.

The retail chain Depot sells decoration and furnishing items. Depot is about creating an experience for the customer and stimulating their imagination. An appealing presentation of the goods (Figure 6) is intended to awaken the customer's desire to embellish his home with articles from Depot (Gries Deco Company, 2021a).

Figure 6: Presentation of goods at Depot
(Source: Gries Deco Company, 2021b)

The entire presentation of goods is structured according to theme worlds, which are adapted seasonally. All products are presented as a complete arrangement in order to show the customer the decoration possibilities directly.

The implementation of this idea of product presentation is complex and cost-intensive, since the seasonal adaptation of the theme worlds does not only concern individual articles, but complete arrangements up to large parts of the entire sales floor.

Experiential Shopping: Globetrotter

The typical experiential shopper is highly stimulated and attaches great importance to adventure and thrill.

Globetrotter is a retail chain for outdoor products that allows customers to try out sports accessories directly in the shop (Figure 7). This does not only mean testing running shoes on a treadmill, but also, for example, a diving suit in its own pool or a ski suit in its own cold chamber (Globetrotter, 2021a).

Figure 7: Cold chamber at Globetrotter
(Source: Globetrotter, 2021b)

Globetrotter offers these possibilities to its customers in its flagship stores, e.g. in Hamburg or Cologne. Everything is geared towards the customer's experience in order to convince them of the products' features in the live stations.

It should be critically noted that this interactive, experience-oriented concept can be implemented excellently in selected flagship stores, but threatens to reach its limits with a nationwide roll-out.

Exclusive Shopping: Wempe

The fifth shopping world is exclusive shopping. Its customers have a high degree of the dominance system and a high need for status symbols and a demonstration of power.

This shopping world is particularly well represented by the Wempe jewellery chain. The family-owned company places particular emphasis on solidity, exclusivity and continuity. The characteristics of exclusive shopping are high-quality products and exclusive shop designs (Figure 8) (Wempe, 2021a).

Figure 8: Store design at Wempe
(Source: Wempe, 2021b)

Also important is an excellent location. For this reason, Wempe shops are only found in the most expensive and best shopping streets of the major metropolises. Inside the shop, emphasis is placed on high-quality furnishings with expensive materials. These are supposed to create the atmosphere for an exclusive consultation.

Exclusivity can be conveyed in particular through scarcity and authenticity. Although Wempe's concept can be expanded internationally, it seems less suitable for national market penetration (i.e. outside the large metropolises and most expensive shopping miles).

CRITICAL APPRAISAL

Neuromarketing is an innovative instrument for market research and forms a valuable basis for the design of marketing. The reason for this is, among other things, the possibility of making processes in the customer's brain visible, which take place, for example, during a purchase decision, and of aligning marketing strategies to this. Especially in stationary trade, it is becoming increasingly important to stand out from the competition and to create an emotional added value for the customer. This is possible in many areas of marketing: from the architecture and store design to the assortment, the presentation of goods, the product quality, the price strategy, the staff and their advice, and the corresponding communication measures. The findings of neuroscience complement the methods of market research and marketing. For example, neuromarketing can be used to segment customers into target groups based on their emotional systems, which can then be addressed by targeted marketing measures.

However, the effort and high costs associated with neuroscientific methods must be viewed critically. The purchase of a brain scanner alone costs millions. Added to this are maintenance costs of usually more than 200,000 Euros per year. This leads to an hourly rate of over 1,000 Euros per hour of operation of a brain scanner (Wells & Martin, 2017; Raab, Gernsheimer & Schindler, 2009). This expense is enormous and not profitable for many companies. Another disadvantage of using imaging methods in market research is the fact that although it is possible to see which areas of the brain are active, it is not clear how they are connected or influence each other. Neither can exact thoughts of a person be recorded. Not least from a moral point of view, the view into the customer's brain is to be critically questioned, as customers become more and more transparent in this way and the fear of manipulation increases.

CONCLUSION

In summary, important insights for marketing can be gained through the use of neuroscientific methods in market research. Especially the influence of emotions and the unconscious play a major role in the purchase decision of consumers. Using the limbic map, buyers can be clustered into types based on the characteristics of their emotional systems, for each of which specific marketing measures can be derived. The best-practice examples presented from retail marketing have shown that a targeted approach to specific shopping types with an implementation in all company and marketing areas leads to success. Neuromarketing will continue to gain importance for retail in the future and help to understand the customer even better (Rittinger, 2016; Nufer &

Kronenberg, 2014). Particularly in the case of imaging procedures, all potentials are far from exhausted and there is still room for further technological innovations.

Neuroscience is already relatively advanced when it comes to researching the principle effects of marketing in the brain. This applies in particular to the description and explanation of consumer behaviour. However, what is often still missing is the transfer of these findings into marketing practice.

The reason could be that research has so far primarily pursued the question of `why?´. For marketing practice, however, the question of `how?´ is much more relevant (Kenning, 2016). This article has attempted to answer the question of `how?´, i.e. to build a bridge from research to practice, using retail marketing as an example. This approach can also be applied to companies outside the retail sector.

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PUTTING INTERNAL MARKETING INTO PRACTICE: TO WHAT EXTENT CAN AN INTERNAL MARKETING ORIENTATION (IMO) BE MEASURED?

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Abstract

Purpose – This paper consolidates and analyses the current literature on Internal Marketing (IM) and provides a much need focus on the notion of Boundary Spanning Employees (BSEs). It identifies key studies (Lings, 2004; Ruizalba et al, 2014 amongst others) which provided the foundation for the IM model entitled "Boundary-spanning employees at the internal-external markets interface" (Richardson, 2020, p223).
Ultimately marketing models should be operationalised if they are to move beyond being purely academic and have real, lasting impact. The benefits of having a Marketing Orientation (MO) are well established. Extant studies espoused applying the MO approach internally resulting in an Internal Marketing Orientation (IMO) as a means of implementing the abstract concept of IM. This paper critiques previous attempts at quantifying IMO and other positivist approaches to improve the adoption of IM. Furthermore, it refines Richardson's IM concept which itself will provide a platform for primary research into IM within service providers where respondents may not necessarily be aware of IM or the terms used therein (e.g., internal customers; internal markets; boundary spanning employees).
Design/ Methodology/ Approach – This paper presents a critique of extant IM (and IMO) literature Richardson's IM model. The extant research into IM has been mainly quantitative in nature and this paper presents the argument for qualitative studies providing new insights for academics and practitioners alike.
Research limitations/implications –The current analysis is conceptual and is hindered by the paucity of outputs on what is a key area of marketing.
Originality/Value – The insights generated by this paper will contribute to the nascent area of IM-related studies and hopefully influence practice. The paper offers a new model which juxtaposes BSEs with IM segmentation for the first time.

Keywords: Marketing Orientation, Internal Marketing, Internal Marketing Orientation, Internal Market Segmentation, Boundary Spanning Employees.

INTRODUCTION

One of the major world trends in recent years has been the dramatic growth of services. Services are now the major driver of many economies. This is due to rising affluence, more leisure time and the growing complexity of products that require servicing. Research into Services is not new, for example Booms and Bitner (1981) created an Extended Marketing Mix for services by complementing the traditional 4Ps (of McCarthy's Marketing Mix) with People, Process and Physical Evidence. More recently the term Physical Evidence has been replaced with Presence to better reflect online service providers (Richardson et al, 2015). Berry coined the phrase Relationship Marketing apropos services (Berry, 1983) and Shostack recognised that every time customers interact with service providers a "service encounter" occurs (Shostack, 1984). 'Services' marketing has long been based upon the notion that there is more to service than being served. It is predicated upon the mutual exchange and fulfillment of promises (Gronroos, 1990). That said issues arise with services, namely some are 'unsought', not all consumers can clearly articulate their needs and as they cannot test the service before purchase there is a degree of risk.

Bitner et al (1993) suggested that the major output from the services marketing literature up to 1980 was the delineation of four services characteristics: intangibility, inseparability, heterogeneity and perishability. More recently these have been complemented with ownership. Whilst undoubtedly important, this paper is not about the 7Ps and service characteristics per se. Suffice to say that consumers do not own services, rather, they seek benefits from the service (Fig 1) which itself depends on those providing it, is variable and has a degree of risk.

Fig 1 benefits sought in service encounters	
Sought benefit	Factors to be measured
Reliability	Right first time; Consistency (billing, branding, timing)
Competence	Required skills; abilities
Courtesy	Respect; friendliness; politeness
Communication	Information; jargon avoidance
Credibility	Trustworthy; Believability; Honesty; Acts in best interest of client
Security	Risk; danger; doubt; uncertainty
Understanding	Leaning customer requirements; consistency
Access	Approachability; ease of contact; opening times
Responsiveness	Employee willingness; readiness; prompt service
Source: adapted from Parasurman, Zeithmal & Berry (1985)	

Clearly, a key challenge for service providers is matching supply to demand whilst creating or co-creating the value customers are seeking (Richardson & Cassop Thompson, 2019). Service providers should conflate the benefits sought (Fig 1) with the Extended Marketing Mix for Services (where People, Process and Presence complement the traditional 4Ps) to ensure the provision of consistently high-quality services (Fig 2).

Fig 2 Conflating the extended Services Mix with some sought benefits		
Service Mix	Sought benefits	Suggestions
Process	Reliability: - Can the company perform the service, accurately, dependably and consistently? Does the delivery 'fit' the instructions given?	Set agreed, quantifiable, attainable standards for service delivery create systems to measure and monitor success
People	Responsiveness: - Can the company offer a timely service that meets customers' expectations?	Establish clients' requirements Analyse internal implications - e.g., training needs, restructuring; Develop training programmes
	Empathy: - Does the company focus on the individual?	Determine client care objectives
	Assurance: - Does the company convey trust and confidence?	Ensure adequate internal education and communication; Consider performance related pay and recognition systems Set up/revise systems for service delivery
Physical Evidence or Presence	Tangibles: - Does the company project itself in a professional manner?	Ensure look and feel of tangible attributes (e.g. offices, cars, reception) are excellent. Create a culture where staff want to present themselves in the best possible manner; Ensure online presence is easy to find, navigate and monetize.
Source original diagram		

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Fig 2 only shows the complementary (rather than traditional) Ps however it illustrates the necessity for changes to service design and delivery to take place in a coordinated manner (McDonald, 2017; Hanlon, 2019). The 7Ps and service characteristics are extensively covered elsewhere in the Marketing domain.

In large, highly structured service-providers complex networks of internal supplier-customer relationships operate daily. Hence it is worth considering these relationships.

1.1 Internal supplier-customer relationships in service providers

Bitner suggested the work of Gronroos influenced Kotler "who termed these essential marketing activities external marketing, interactive marketing, and internal marketing" (Bitner, 1995, p246).

Fig 3 Kotler's Service Profit Chain
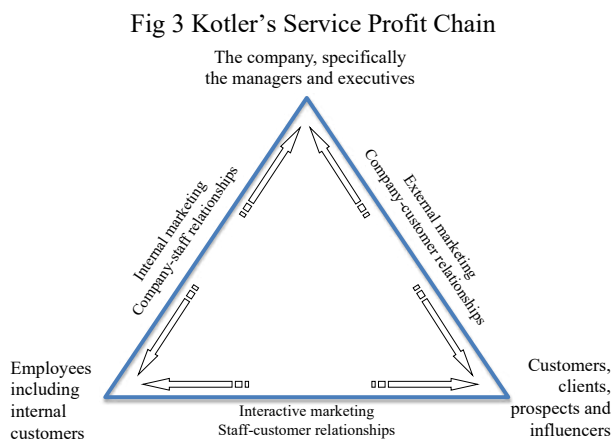
Fig 3 Kotler's services triangle

Fig 3 portrays a refined version of Kotler's services triangle illustrating the internal dyadic relationships (Anderson & Smith, 2016). It shows how 'Internal' marketing could apply within large service providers where the Executive are responsible for leadership and strategy, whilst Managers (who report to the Executive) have department heads or supervisors reporting to them. The internal customers (ICs) of senior management teams are the staff they 'line-manage'. The supervisors supply their skills and knowledge to the staff who come into regular contact with external customers. These staff are the supervisors' ICs. ICs who regularly interact with external customers and prospects are 'boundary spanning employees' (hereafter BSEs).

Kotler's service triangle is useful in recognising the three modes of marketing 'External', 'Interactive' and the key function of Internal Marketing (hereafter IM) however it does not sufficiently recognise how BSEs build the bridge between the internal and external

markets. It needs to better differentiate between internal support staff (and ICs) and recognise the key role of BSEs (Fig 4).

Fig 4 Boundary spanning employees at the internal-external markets interface
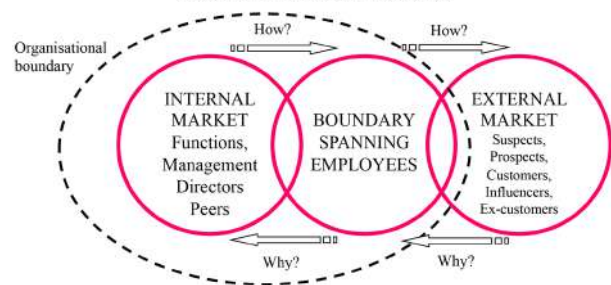
If all three marketing 'types' are essential for building and maintaining relationships with customers (Bitner, 1995) as is evidenced by Kotler continuing to cite the services triangle (see Kotler et al, 2020), then why does the IM literature suggest it is neither practised nor acknowledged by organisations? This may result from the absence of an appropriate marketing-based culture (Gounaris, 2006, Day, 1998) which Houston (1986 cited by Gounaris, 2006) describes as the pursuit of 'generating value' for the organisation's consumer base, whilst ensuring organisational 'yields' are achieved. In smaller companies the structure will be flatter, however internal supplier-customer relationships will still exist.

Before the 'journey' begins customers have already built-up expectations and after consumption, they reflect on the degree to which they were delighted. These reflections can seriously impact customer satisfaction, word-of-mouth or repeat business. Consumers' perceptions of how well a service meets or exceeds their expectations will inform their decision-making. There are three elements that determine service quality experience namely Technical, Functional and Expectation (Gronroos, 1984). Technical alludes to aspects of the service e.g., waiting times for trains; functional refers to how well the service is delivered e.g. was it provided in a friendly way? Or in a professional manner? Expectation refers to managing the expectations of the customer and staff delivering the service. Some customers have unrealistic expectations some of which can be met whereas others cannot. These elements are sometimes referred to as the 'triangle of quality perception' (ibid). Competitors can use these elements to differentiate the quality of their offering from their competitors. Improves service delivery can drive customer satisfaction (an attitude) and loyalty which is behavioural. As mentioned previously, there is more to services than merely being served particularly if companies seek to create loyalty. Hence, Marketers must be willing to measure the service quality and act on the findings.

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1.2   Customer Involvement

A 'servicescape' comes into being when a heightened consumer focus is imposed on the (purely operational) task environment. Those who study the servicescape are concerned with the co-creation of experience between designers, marketers, customers, prospects and consumers (Baker et al, 2007). The idea that, on entering a servicescape people immediately make judgments as to whether they feel welcome (inid), is not new. These judgments will be shaped by the degree of involvement with the service. Bitner (1995, p248) cited Disney where

"each amusement park customer experiences 74 encounters in a single visit and that a negative experience in any one of the 74 can result in relationship deterioration".

The notion of services having differing degrees of consumer involvement is well established (Aldlaigan & Buttle, 2001) with cognitive, conative and affective dimensions varying between consumers, service providers and sectors (ibid). The degree of involvement shapes the level of expectations as does whether the service is aimed at people or possessions (Fig 5).

Fig 5 Contrasting the nature of services being directed at people or possessions		
Nature of the Service	Directed at People	Directed at Possessions
TANGIBLE ACTS	**People Processing** people have to physically present them so that they become immersed within the service process e.g., dentists, airlines, hospitals, haircutting, restaurants hotels, fitness centres.	**Possession Processing** objects are liable to breakdown or need maintenance. Here the quality of the repair service is not dependent on the owner or representative of the possession being present whilst the service operation takes place e.g., freight, repair, cleaning, landscaping, retailing, recycling.
INTANGIBLE ACTS	**Mental Stimulus Processing:** people have to become involved mentally in the service interaction and give time in order that they experience the benefits of this type of service e.g. education, playing games broadcasting, consulting, psychotherapy	**Information Processing (Directed at intangible assets)** advances in technology have enabled information processing to become quicker, more accurate and more frequent, often at the expense of people processing. E.g., airline bookings, accounting, banking, insurance, legal, research
Source adapted from Baines et al (2013)		

Fig 5 provides a useful template for Service providers who can anticipate issues with their delivery. Whilst being a low involvement activity, consumers will not be satisfied if, say, a Bank's ATM is empty. They expect it to be 'right-first-time'. To paraphrase Herzberg, merely refilling the empty ATM will not improve customer motivation. If something has gone wrong, simply putting it right does not automatically increase customer satisfaction (Herzberg et al, 1957). Furthermore, low involvement services failures can lead to high involvement acts where customers engage with service providers (in this case a bank) seeking not only correction of the error but also compensation for the inconvenience and in extreme cases customers 'switching' providers (Farah, 2017).

In all encounters there are likely to be certain types of encounters that have a greater impact on relationship building and maintenance than others (Bitner, 1995). For example, when a customer is interacting with a service provider for the first time, that initial encounter will be critically important in creating a first impression. However, often "the importance of the person who creates the organizations' first impression is not recognized" (ibid, p248)

Companies who strive to correct mistakes and then deliver the expected levels of services may benefit from the Service Recovery Paradox (McCollough and Bharadwaj, 1992). In situations where consumer problems have been satisfactory resolved, the levels of satisfaction can be equal to or greater than that where no problem had occurred (ibid). It would be a folly to rely on such phenomena as subsequent research has found them to be rare indeed (Michel and Meuter, 2008). The sensible approach is to get

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it 'right first time' and assume consumers are active (not passive), free to choose suppliers and can switch easily. Changes to regulations and legislation increasingly seek to make it easier for consumers to 'switch' (Farah, 2017). Arguably, if consumers know they can switch service providers easily, they will feel more in control. Ironically this could make them less likely to switch ceteris paribus (ibid). A way to avoid such dis-satisfaction is to promote value co-creation or seeking for consumers (Richardson and Cassop Thomson, 2019). Either way consumers must feel 'involved'.

1.3   Market Orientation (MO)

The term market orientation (hereafter MO) is widely recognised as signalling the importance organisations attach to their marketplace including customers and competitors (Kohli & Jaworksi, 1990. In marketing and market-oriented companies, the consumer should be placed at the heart of all key management decisions. All staff are responsible for supporting the MO, not just those in marketing department (ibid). This applies to all organisations but especially small ones where marketing is often allocated to one individual who may be multi-tasking.

Kohli and Jaworski (1990) defined an MO as the organisation wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisation wide responsiveness to it. Richardson et al (2015) refined this and, drawing on Doyle & Stern (2006), defined MO as

"understanding current and future customers' needs and wants in order to   develop products and services that offer value for the customer, distinctive from the offers of   other companies, which can be profitably produced. Hence companies must recognise   the importance of continuing research in the marketplace and ongoing relationships with customers".

Kohli & Jaworksi (1990) suggests intelligence gathering cannot be the sole responsibility of the Marketing function but it is logical for Marketing to be responsible for collating data, processing it into information and disseminating this across the organisation. Fang et al (2013) argue that there must be an active, responsive IM activity within organisations that seeks, gathers and disseminates information from and to employees. Their research suggests a strong link between effective IM and external market capabilities in what they term 'market sensing', i.e., finding out what the dynamics of the marketplace and external environment are and 'customer linking', by which they mean analysing

current and prospective customer behaviour and building relationships ('bonding') with customers.

This also applies to 'internal' customers, particularly in services where 'People' are the key component of the extended Marketing Mix (see Fig 2). Hence, the recruitment, training, motivation and rewarding of staff is critical to ultimate success (Bitner, 1995). Even with product-based marketing, the role of the staff involved in its development, testing, production, marketing, distribution and post-sales support are all central to success. The general consensus in the IM literature is that success in the external marketplace is partly due to having motivated and satisfied staff, especially the BSEs (Lings & Greenley, 2009; Berry & Parasuraman, 1991). If BSEs in particular are motivated and satisfied, then it is generally acknowledged that this transcends to the external customer, particularly in service-based organisations. Clearly, there are internal supplier-customer relationships throughout organisations. Hence it is prudent to reflect on Internal Marketing (IM).

2. Internal Marketing (IM)

Rafiq & Ahmed (2000, p449) suggest there "is a great deal of confusion in the literature as to exactly what IM is, what it is supposed to do, how it is supposed to do it and who is supposed to do it". This confusion combined with limited information available to practitioners, may explain why IM is still not widely adopted in organisations (Boukis et al, 2014). There is no single accepted definition to which scholars subscribe which itself may cause confusion in both academic and commercial circles (Varey, 1995; Rafiq & Ahmed, 1993, 2000; Lings, 2004 and Podnar & Golob, 2010). Yu-ting & Rundle-Thiele (2015) cite 43 definitions of IM over the last 30 years. For this study, IM is defined as a planned effort
"using a marketing-like approach to overcome organisational resistance to change and to align, motivate and inter-functionally co-ordinate and integrate employees towards the effective implementation of corporate and functional strategies in order to deliver customer satisfaction through a process of creating motivated and customer orientated employees."
(Rafiq & Ahmed, 2000, p454)

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2.1 Deconstructing IM

Three broad views of IM can be inferred from the literature.

2.1.1 A behavioural instrumental approach

Where IM focuses upon internal products (jobs) that satisfy the ICs' needs thus facilitating achieving organisational objectives and the formation of a consistent brand identity (Berry et al, 1976; Berry, 1981). Rafiq & Ahmed (1993) identified issues arising from this early conceptualisation, as employees are largely under contractual obligations and the internal market circumstances do not always replicate those of the challenging external marketplace.

2.1.2 A mechanistic approach

Gummesson (1987) ascribed a mechanistic approach to IM, viewing ICs from the perspective of the organisation's internal service value chain. This resonates with the Total Quality Management (TQM) view of IM where employees are involved in value creating activities which contribute to the internal supplier-customer relationship and process. This should deliver improved quality of service to the external customer. Lings (2004) distinguished this approach to IM from others ascribed the label 'Internal Customer Orientation' (ICO). Although this view of IM widens the scope to include operational staff, it may lead to over processed standards of service which may reduce rather than increase employee satisfaction (Naude et al, 2002). Internal feedback is not solely the responsibility of the HR department as marketing has a unique inter-functional responsibility that transcends formal structural boundaries (Kimura, 2017). Research is needed in order to train or inform staff throughout the organisation to drive the creation of value and improve the consumer's perception of the brand (ibid). As such internal feedback is relevant for the marketing team and marketers should inform decisions made by the HR function when recruiting staff. A key concern of staff (particularly in larger organisations) features not being consulted or made aware of major issues. This could relate to the strategic objectives, mission or values of the organisation as a whole. Furthermore, employees' needs must be central in any organisational strategy and determining (these needs) should be a key priority for managers (Robledo et al, 2015). Having collected this valuable employee information, only then can management translate it into effective IM programmes, as a means to develop strategic efficiency. That said, most IM studies have not sought the views of employees (including BSEs) which is remiss as their perceptions are fundamental to understanding how well IM is practised (Yu-ting

& Rundle-Thiele, 2014). As mentioned, Fang et al (2013) argue that there must be active, responsive IM activities within organisations that seek, gather and disseminate information from and to employees. ICs (especially BSEs) must have input into marketing plans as they have unique insights into customer values, perceptions, attitudes and behaviours. Marketers must reflect on the effectiveness of the organisation's internal communication processes and be willing to speak 'truth to power' apropos how the senior management team communicate. How well do middle managers communicate? Even in small businesses, how well do the core ICs cross-coordinate and communicate?

2.1.3 A hybrid approach

Rafiq & Ahmed (2000) suggest a third 'holistic' approach to IM that blends the previous two conceptualisations. Their hybrid approach illustrates how IM can impact both jobs and processes in a bid to improve the organisation's overall effectiveness. Indeed, apropos attaining external marketing objectives, IM has only recently been identified which may explain increasing recent academic interest (see Cahill, 2016, Kimura, 2017 and Brown 2020).

Marketing can be seen as an internal service provider for other functions or departments (Bitner, 1995; Hanlon; 2019; Richardson, 2020) and should lead because Marketers:
- act as a catalyst for change by communicating changing customer needs.
- can use Internal Marketing acts to disseminate corporate culture
- can brief HR on the skills required for customer service
- liaise heavily with all functions (departments), say, regarding new products.

There may be costs and benefits for ICs who may be asked to make sacrifices as a result of a new marketing plan (e.g. lost resources, lower status, new (harder) ways of working). Changes to the convenience of the service consumption can influence the achievement of marketing objectives. Marketers must choose the most effective way to engage with the internal customers directly or indirectly practised (Yu-ting & Rundle-Thiele, 2014).

Marketers are experienced in developing techniques to target and obtain feedback from external customers. However senior management rarely uses this expertise to secure feedback from their ICs on how well they, the management team, are performing (Richardson, 2020). All marketers understand the concept of segmentation and should be capable segmenting internally (Fig 5)

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INTERNAL CUSTOMERS (ICs)

INTERNAL MARKET SEGMENTS

Contactors:	Modifiers:	Influencers:	Isolateds:
Target Group 1 Internal Mix 1 Have frequent/regular contact with customers. Heavily involved in marketing activities (sales/customer service). Need to be well versed in firm's marketing strategies, trained, prepared, motivated & rewarded for providing excellent customer service.	Target Group 2 Internal Mix 2 Not directly involved with conventional marketing activities but have regular customer contact (e.g. receptionists, finance). These people need a clear view of the firm's marketing strategy and the importance of responsiveness to customer needs.	Target Group 3 Internal Mix 3 are involved with the traditional elements of marketing but with little/no customer contact (e.g. product/service development or market research). Firms must ensure that theses people develop a sense of customer responsiveness. They influence creation of value.	Target Group 4 Internal Mix 4 support functions that have neither direct customer contact nor marketing input(e.g. purchasing, HR, data processing). Such staff need to be sensitive to the needs of *internal* customers as well a to their part in creating value for customers.

Fig 6 Internal Marketing: segmentation

Fig 6 draws on the work of Peck et al (2002) and Jobber (2007). It provides useful differentiation between differing types of ICs. Clearly 'Contactors' and 'Modifiers' should be treated as 'full-blown' BSEs where managers strive to enable and empower them (Brown, 2020) to keep the promises made to customers (Bitner,1995). Modifiers could for example be modern IT departments who increasingly talk about satisfying 'customers' (Richardson, 2020). 'Influencers' have a small degree of BSE activity whereas 'Isolated' are largely in support functions. Clearly parallels can be drawn between Jobber and Peck's Influencers and those identified by Marketers in social media communications (Hanlon, 2019). As with 'External Marketing' (Fig 3) research should be undertaken and each target segment should have a tailored 'Internal Mix' with emphasis placed upon communications and process.

2.2 Benefits of Internal Marketing (IM)

If ICs are engaged, they are more likely to be motivated and satisfied; they will feel valued which in turn leads to increased work output, higher quality and attention to detail in their work. Richardson (2020) suggests this can lead to:
- increased sales and market share
- improved reputation and brand integrity
- greater employee knowledge, satisfaction and retention
- better trained, motivated staff being more involved with corporate objectives
- breaking down 'them and us' cultures and reduction of the silo effect
- improved communication and organisation
- product/service innovation from internal customers
- a competitive edge that is hard to 'imitate'

Satisfying ICs increases the likelihood of creating value and delighting external customers (Bitner, 1995), which leads to the improved business performance indicators. Particularly in a service-based organisation where BSEs are in direct contact with the consumers on a daily basis (see Fig 5). That said good customer service needs constant reinforcement. An additional benefit of IM practices may be a reduction of the 'silo' effect as there should be better alignment of divisions withing companies (Kimura, 2017). Many employees, particularly in large organisations, complain of the lack of joined up thinking in terms of inter-functional operations and communications. As organisations grow and functions become more formally structured, often into formal departments, the cross-functional links between these departments can fracture. Often job descriptions and general responsibilities do not formally recognise the inter-functional collaboration that is required. As IM is based upon viewing ICs as part of the internal supplier and customer process, it generally starts to bond employees and managers at all levels across and throughout the organisation in a much more robust manner, enhancing the capabilities of a company's internal resources (ibid).

2.3 Key Criticisms of Internal Marketing (IM)

Conduit et al (2014) acknowledge that whilst some researchers recognise the synergy between an external and internal orientations, others view it as contradictory. Piercy (1998) warned against 'internal euphoria' whereby employees can become so cohesive and social that they focus upon serving the needs of the organisation, diverting the focus and resources away from the external customer. Other criticisms relate to the general diversion of resources, time and attention away from the external marketplace and customers. IM can create

sub-servient internal relationships with power struggles arising throughout and across various functions of the internal market. This may lead to inter-functional conflict with power struggles being created as a result of shifting internal responsibilities and resourcing (Kimura, 2017). Furthermore, IM may highlight internal aspects of managerial weakness, particularly from operational, resource and communication perspectives. This is inherently political. Finally, it challenges managers may wish to preserve the status quo, who are resistant to change or are not well versed in change management.

3. Internal Market Orientation (IMO)

There needs to be a distinction drawn between IM and an 'IMO' (Gounaris, 2006). Gounaris suggests an IMO represents 'the synthesis of specific beliefs with specific marketing like behaviours' which focuses on the needs and expectations of the employees (ibid). IMO can be traced back to the 1990's when a focus upon relationship marketing and subsequently internal marketing became more prevalent. (Berry & Parasuraman, 1991; Piercy & Morgan, 1990).

Fang et al (2014) attribute the term IMO to Lings (2004) and Lings & Greenley (2005) applying the MO concept to the employer and employee exchanges, inside and throughout an organisation with a behavioural perspective. Gounaris (2006, p 434) commented that existing literature on IMO remains "thin and sporadic, while its measurement lacks empirical validation". It is recognised that organisations need to develop a robust IMO that identifies (and satisfies) the needs (and wants) of internal customers before satisfying those of the external customer prior to successfully pursuing and attaining an external market orientation or MO (Piercy, 1995; Conduit & Mavondo, 2001; Gounaris, 2009 and Ruizalba et al, 2014). There is a general acknowledgement in the literature that IMO is supported broadly by the MO paradigm (see 1.3) and that the work of Kohli & Jaworski (1990) should be viewed as the basis of building the dimensions of an effective IMO (Lings 2004; Lings & Greenley, 2005, 2009; Gounaris, 2006, 2008; Ruizalba & Aran, 2014 and Robledo et al 2015).

Fig 7 portrays the key authors deemed significant to the development of IMO and its subsequent measurement, evolution and development.

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Author/Date	Study Summaries
Lings (2004)	Internal market orientation: Construct and Consequences
Lings & Greenley (2005)	Measuring Internal Market Orientation
Gounaris (2006)	Internal-Market Orientation and its measurement
Gounaris (2008)	IMO and employee satisfaction: some preliminary evidence
Tortosa-Edo (2009)	IMO and its influence on organisational performance
Kaur et al (2009)	Internal Market orientation in Indian Banking: empirical analysis
Lings & Greenley (2009)	The impact of internal and external MOs on firm performance
Gounaris et al (2010)	IMO: a misconceived aspect of marketing theory
Lings & Greenley (2010)	IMO and market-oriented behaviours
Kaur et al (2010)	An assessment of IMO in Jamu & Kashmir Bank through internal supplier's perspective
Tortosa-Edo et al (2010)	IMO and its influence on the satisfaction of contact personnel
Sahi et al (2013)	Revisiting Internal Market Orientation: a note
Boukis et al (2014)	IMO and different fir types as key enablers of employee brand-supporting behaviour
Ruizalba et al (2014)	IMO: empirical research in hotel sector
Fang et al (2014)	IMO: market capabilities and learning orientation
Robledo & Aran (2014)	Empirical analysis of constituent factors of IMO -Spanish hotels
Tortosa-Edo et al (2015)	The influence of IMO on external outcomes: the mediating role of employees' attitudes
Gyepi-Garbrah & Asamoah (2015)	Towards a holistic IMO measurement scale
Robledo et al (2015)	Analysis of corporate volunteering in IMO & on job satisfaction
Ruizalba et al (2016)	IMO and work-family balance in family business

Fig 7 Key studies exploring the evolution of IMO

Robledo et al (2015) identifies the seminal work of the IMO construct being specifically developed by Lings (2004), Lings & Greenley (2005) and Gounaris (2006). Several subsequent authors recognise the work of Lings & Greenley (2005) such as Tortosa et al (2009), Kaur et al (2009) and Sahi et al (2013) who discuss the development and validation of the IMO measurement scale in their own study.

3.1 Deconstructing IMO

Lings (2004) developed three sub dimensions of IMO behaviour to reflect the three broad sets of behaviour relating to organisations who are successfully implementing internal marketing programmes and initiatives. This is generally recognised as a seminal piece of work in this field (Gounaris, 2006, 2009; Ruizalba et al, 2014).

3.1.1 Internal market research refers to the investment and communication required to collect and generate information pertaining to the internal market; what is viewed of being of value to the employees, the internal environmental and market conditions.

3.1.2 The dissemination of the intelligence relates more pointedly at the communication between different managers and employees both vertically and horizontally throughout the organisation. Lings (2004) suggests that the ultimate purpose of these two points is to both communicate the organisations vision, objectives and strategies to the employees through internal mass media initiatives and the second is to identify and respond to the employees needs with regard to requirements from employees' managers.

3.1.3   The design of job creation that provide the skills, abilities, tools and motivation to deliver (Bitner, 1995) by meeting the needs of the employees via reward, motivational and training schemes (Lings, 2004). Whilst investment in the three behavioural dimensions of IMO is required, the actual culture of the organisation needs to support this, along with effective communication both horizontally and vertically throughout the organisation to both collect and disseminate information – supported by an appropriate managerial culture (ibid). Indeed, Lings implies that the recruitment of managers needs to be considered carefully and that they recognise the need to place employees at the heart of their decisions, strategies and actions. If the relationship bridges are built, then interaction, integration and communication and cross functional cooperation should follow.

Gounaris (2006) suggests that there are potential issues with Ling's proposed IMO structure. Firstly, Lings (2004) suggests that segmenting the IM is a dimension of the organisations ability to collect intelligence regarding the employees' market. However, Gounaris (2006) points out that internal intelligence is actually a pre-condition for segmentation that follows and the same is true for the dimension of developing strategies for specific segments. Furthermore the 3-component approach to IMO may be too simplistic as more sub-components or multifaceted constructs (such as satisfaction) may be needed (Gounaris, 2006).

Later studies adapted the model e.g., incorporating work family balance as a sub dimension which also qualifies as a social element (Robledo & Aran, 2014).

Lings & Greenley (2005) developed the IMO concept by suggesting information generation could be both formal and informal, resulting in five behavioural components in their scale. Indeed, Gounaris (2006) concludes that IMO is based on a hierarchical construct comprised of three major and ten sub dimensions and is grounded in the MO paradigm originally developed by Kholi and Jakworski (1990). Ruizalba et al (2014) also highlight the multifaceted nature of the IMO construct in their study suggesting it consists of the three behavioural constructs with the first and third formed in turn by 'five first order constructs'. These complexities may prove difficult to measure which may partially explain why, despite many attempts at measuring IMO, IM has largely failed to gain ground with practitioners.

3.2 Practical steps towards adopting an IMO and thus implementing IM
Research into best IM practices undertaken by the North Western University (NWU, 2006) advocated activities and practices to promote IM (Fig 8)

Activities	Practices
Creating an efficient and collaborative work environment where employees feel involved and/or motivated to work.	Information generation
Positive reinforcement of proactive work	
Communicating the brand promise to employees across the most relevant channels. Motivate employees to deliver on that promise	Communicate
HR play a vital role in developing strategies that synchronize with marketing & business development	Reflect
IM encompassing all employees.	Gather data
Horizontal integration allowing all functions & levels to be involved	
Leadership initiative, support and buy-in is essential	Acting on the findings.
Formal approach is taken to IM including research and planning	
(Source- adapted from NWU, 2006)	

Fig 8 Activities and practices to promote IM adoption

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It can be inferred from Fig 8 that IM can be implemented (or at least introduced) by ensuring that the organisation is providing timely and accurate information to all staff. Managers must Reflect on how well the company responds to its internal market's needs. Are ICs well rewarded for their skills, time and abilities? Too many managers merely appraise staff in a top-down manner. However, BSEs, particularly the customer facing 'Contactors' and 'Modifiers' (Fig 6), should ideally be providing meaningful feedback on their line manager's ability to provide them with the resources, skills, time and rewards. Performance reviews should involve 360-degree appraisals. It has been long argued that to be effective, IM needs 'buy-in' from senior management (Bitner, 1995; Gounaris, 2006), which, (sadly), is not always the case. Too often marketing audits (whether internal or external) are rendered ineffective by the lack of management commitment (McDonald, 2017). Often a cultural shift is required which can take time, skill, resilience and resource.

CONCLUSIONS

All interactions or 'touchpoints' in the consumer's 'journey' provide opportunities to portray the service-provider in a positive or negative light. Senior management must reflect on how BSEs create value whilst they in return should be cognisant of why value must be created. Therefore, effective relationship bridges between managers and employees must be built supported by underpinning culture and behaviours.

Fig 9 BSEs and internal segments at the internal-external markets interface
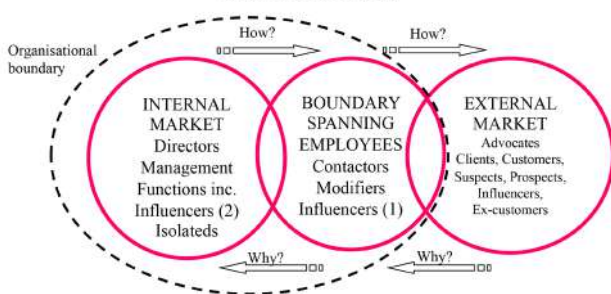
Fig (9) provides indicators apropos where such 'bridges' should be built. This will involve subjective judgments which themselves are hard to measure. Ultimately, an IMO, irrespective of organisational hierarchies and bureaucracy, recognises that the value of the employees influences the value that the external customers receive (Berry, 1981; George, 1990; Piercy, 1995 and Gounaris, 2006). Gounaris (2006) insists IMO is predicated upon the degree of commitment to which the organisation produces 'value' for its employees through effectively managing relations and communication between employees, supervisors and management, both horizontally and vertically throughout the organisation. All parties should accept that value can be created and perceived and taken rather than given.

Most organisations fail to explicitly use IM at a strategic or operational level despite the benefits that can accrue (Brown, 2020). There is a degree of conflict in academic circles as to what IM involves and represents. This can cause confusion and may explain why such practices are limited in business today. IM is worthy of consideration as it

• identifies key stakeholder groups missing from most texts - ICs and BSEs
• underpins the adoption of a MO and thus sustainable MO
• advocates using marketing techniques internally to motivate staff and increase internal 'buy-in' or 'involvement'

Organisational success is usually predicated on the way the internal stakeholders perform. Service providers often involve an intricate web of functions that marketing transcends in its inter-functional approach. Within those functions people strive to fulfil their role and the overall strategic objectives of the organisation. Those who advocate IM recognise their colleagues not just as employees but as valued ICs. Once this change in perception is established, the attitudes and responsibilities of senior management must change. In highly structured, larger service providers the management teams can become divorced from the 'shop floor'. Marketers must be willing to investigate the extent to which staff feel valued, motivated and rewarded by the management. Managers who struggle to answer these questions may be surprised when staff surveys generate negative outcomes.

Marketers must sell the benefits of IM to their colleagues on an on-going basis. Largely, companies focus on managing their reputation externally e.g., via the corporate website and neglect sometimes conflicting messages being made public by employees and stakeholders in the Microenvironment. Sometimes there is a gap between managers' attitudes and behaviours.

To facilitate internal supplier-customer relationships, systems and operations should be designed to enable and empower the 'people' performing their duties within a company and throughout the supply network. Marketers must identify the internal supplier-customer relationships that are formed, developed and used on a daily basis. They should adopt the orientation that affects the quality of the final product or service that reaches consumers. As long ago as 1995 Mary Jo Bitner recognised that

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"issues of recruitment, training, proper support systems, use of technology in delivery,   and their links to customer loyalty remain at the heart of what challenges service managers today" (Bitner, 1995, p249).

This statement is as relevant in the 21st Century, as it was then. It could be argued to be more so with the increasing reliance on technology (Hanlon, 2019). Yet many key authors do not address the issue of IM (see McDonald, 2017) including those who self-identify as 'Critical Marketers' (see Tadajewski and Brownlie, 2008).

FURTHER RESEARCH

There is a general acknowledgement that the IMO construct has at its roots three behavioural dimensions; it is also accepted that it is a multi-faceted and hierarchical construct. Although several key empirical studies have been produced to further develop an understanding of the IMO construct, there are several research opportunities which need to be taken advantage of which could help this body of theory to continue to evolve. This could lead to greater commercial impact and develop further internal customer centricity throughout organisations.

Whilst the extant studies have contributed to the subject domain of IM, the social fabric and cultural sensitivity (of IM) implies lacunae exist. Lings & Greenley (2005) suggest different 'sectors' could have unique characteristics and therefore results are not generalizable across all service-based environments. Furthermore, many of the results of the current studies are not easily transferable due to their national context, thereby limiting contribution to this subject domain. It can be inferred from the literature, that the national and sectoral contexts of previous studies may influence how managers perceive IM and the IMO. This may limit its measurement, transferability or generalizability and is worthy of future research.

A limitation of studies undertaken by some key IM authors (Gounaris, 2006, 2010; Fang et al, 2014; Ruizalba et al, 2014 and Tortosa-Edo, 2015) is the mainly quantitative approach undertaken to data collection. They focus on measurement rather than exploration. Although these studies certainly contribute to the nascent, emerging field of IM research, there is a rich detail and profound understanding missing from the literature. Therefore, developing further interpretative case studies with a more in-depth organisational perspective may provide more insights into IM.

As IMO is identified as an organisation-wide philosophy closely aligned to MO, there is an implication that it represents cultural and social inferences such as values and beliefs which can be very different in various national contexts (Kaur et al, 2009; Ruizalba et al, 2014; Tortosa Edo, 2015 and Sahi et al, 2013). Hence future research could establish the extent to which culture, social values and beliefs influence the adoption of IM across national boundaries

Many non-marketing functions undertake IM on an on-going basis. Hence future research could be intra and inter-functional. Such research would add credence to the notion that IMO and MO are interdependent. Parasuraman et al (1985) identified the benefits consumers seek from services (see Fig 1). They then created the SERVQUAL gaps model which became the most widely used model to measure service quality. SERVQUAL identifies customer service gaps between the management and customers' perceptions apropos the benefits sought. The gaps model of services encourages companies to develop organisational objectives and tactics in order to close the gaps (ibid). Clearly these 'SERVQUAL' measures have synergies with those in Fig 7 that are IM specific. The existing Gaps approach fails to recognise ICs and BSEs which is remiss. Frost and Kumar (2000) sought to synthesise SERVQUAL with IM and coined the term INTSERVQUAL. Once again, they adopted positivist approach. The research was into airline attendants however the term has not 'taken off'. That said a potential direction for future research would be to see if using a Gaps approach can drive IM adoption. Research will be needed to test the efficacy of the existing gaps. New gaps may be needed.

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EXPERIENCE OF PEOPLE IN BUSINESS AS A SOURCE OF TACIT KNOWLEDGE IN THE ENTREPRENEURIAL INTENTIONS OF STUDENTS

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Abstract

Student entrepreneurship is considered to be an important factor that allows for the faster economic growth of each country; this is because students are the driving force of innovation and creativity that transfers into business opportunities. There are research questions: Is tacit knowledge important in the process of creating students' entrepreneurial intentions? What are the sources of the tacit knowledge in business development? Can experience of businessmen be useful in gathering the tacit knowledge by students? In this context the objective was formulated as: can the experience of others be treated as a source of tacit knowledge that favor students who make decisions about running their own businesses? The research methods that were used are: desk research with literature background, qualitative research regarding entrepreneur's experience with tacit knowledge and gathered research data analysis from questionnaire research among students in 7 countries. The following research hypotheses was formulated: 1. Students have access to the experience of other people involved in business. 2. The tacit knowledge support students to make decisions about starting their own enterprises. As the research results, the experience of others can be treated as tacit knowledge. This knowledge is important and possible to access for students in creating their entrepreneurship intentions.

Keywords: Entrepreneurship intentions, tacit knowledge, knowledge, students, decisions

INTRODUCTION

Student entrepreneurship is considered to be an important factor that allows for the faster economic growth of each country; this is because students are the driving force of innovation and creativity that transfers into business opportunities. Such an entrepreneurial activities done by students and universities can provide additional input for research and teaching, help accelerate regional and national economies (Heaton at all, 2019). In this context the objective of the paper was formulated: can the experience of others be treated as a source of tacit knowledge that favor students who make decisions about running their own businesses?

There is main research question was put:
• Is tacit knowledge important in the process of creating students' entrepreneurial intentions?
• What are the sources of the tacit knowledge in business development?
• Can experience of businessmen be useful in gathering the tacit knowledge by students?

There are additional research questions:
• Where the students can possess the knowledge (from whom)?
• What is the level of access of the students to tacit knowledge?
• Is the tacit knowledge requested to set up the business of students at the same level in all countries in study?

The research methods that were used are: desk research with literature background regarding the tacit knowledge and gathered research data analysis from questionnaire research among students in 7 countries.

The following research hypothesis was formulated:
• Students have access to the experience of other people involved in business.
• The tacit knowledge support students to make decisions about starting their own enterprises.

As the research results, the knowledge is an extremely important determinant of entrepreneurship and (in general) factor for making any economic decision

in the opinions of the students. It should also be noted that the respondents could boast to having tacit of knowledge in most cases. This level varied from country to country. Students from six surveyed countries (the Czech Republic, Poland, India, Colombia, Ukraine, and Vietnam) are prepared to the greatest extent to run a business in terms of their knowledge.

TACIT KNOWLEDGE AND DECISION-MAKING

Possessing and utilization of the knowledge is one of the basic determinants of decision-making (including set up business decisions). Also, when it comes to entrepreneurial intentions, knowledge is essential. In relation to this, explicit and implicit (or tacit) knowledge should be distinguished. Explicit knowledge should be understood as academic/technical data or information provided in formal language in digital or printed form (e.g., textbooks) (Roungas et al., 2019). On the other hand, tacit knowledge is cognitive or technical, and consists of mental models, beliefs and perceptions. This is the type of knowledge that cannot be effectively conveyed from one person to another by a simple message (Zeigler-Hill & Shackelford, 2020).

Modern conceptualizations of tacit knowledge assume its functioning in the form of the "onion" model created by Asher and Popper (Asher & Popper, 2019). They assume different layers of tacit knowledge depending on the degree of its hiddenness (from more overt to less overt). Its forms range from the more explainable and closer overt knowledge to the practically impossible to explain and only demonstrable in the furthest corners of tacit knowledge. For example, researchers evaluating software development teams have indicated that tacit knowledge is acquired and shared directly through high-quality social interactions among team members (Ryan & O'Connor, 2013), which can be a real challenge (Koriat & Gelbard, 2014). Moreover, it was indicated that tacit knowledge is personal; therefore, its sharing cannot be formalized nor forced (Kucharska & Kowalczyk, 2016).

There are many of the fields where the knowledge, especially the tacit one, is correspondent to the business activities. The widely knows arenas of the relations are:
- Business managing
- Way of transferring the knowledge,
- The competitiveness of business units,
- Creating innovations.

Managing both explicit and implicit knowledge is a topic that can be used both in scientific research and in economic practice. The effectiveness of business entities – corporations and smaller companies – largely depends on how they manage this knowledge; i.e., how it is obtained and then maintained (for example, know-how) (Smith, 2001).

By gaining and building knowledge, an enterprise not only improves its experience in business but can also increase its competitive advantage (Ganguly et al., 2019).

The significant importance of linking tacit knowledge with organizational forms is presented in the research of Nelson and Winter (Nelson & Winter, 1982) on evolutionary changes in organizations and economies. They interpret the company as a collection of diverse assets governed by "processes" that are similar to human genes. In their view, these processes are hierarchically constructed on the edifices of knowledge. For example, low levels of a hierarchy coevolve with certain kinds of procedures that do not evolve in a hierarchical system. The practical application of such knowledge is shown in the research that was conducted by Nonaka and Takeuchi (Nonaka & Takeuchi, 1985). They demonstrated the use of tacit knowledge as a success factor in industrial organizations in the Japanese automotive and telecommunications industries.

Tacit knowledge is also the knowledge that cannot be effectively transferred from one person to another through conversation. This view has a long history, but the most influential development of this idea was made by M. Polanyi (Polanyi, 1958). In his work, he touched upon a wide spectrum of research areas such as philosophy, mathematics, science, technology, politics, and religion. This subject was also deepened by F. Hayek, for whom the hidden dimension of knowledge became the central category for understanding the role that knowledge plays in society (Hayek, 1967). "Knowledge concealment" means that it cannot be passed on in an open way; other uncodified methods of transfer remain. This is in contrast to explicit knowledge, which can be easily and transparently transferred. One of the research problems that is related to tacit knowledge and its use in business is its codification. This encompasses the tacit knowledge in organizations and means building a competitive advantage at the company level – in particular, using an analysis of the resources in an enterprise (Wernerfelt, 1984; Dyer & Hatch, 2006).

Research has also been conducted for a long time on the relationship of knowledge attributes with various activities that increase the competitiveness of an organization (Powell & DiMaggio, 1991). However, the above-mentioned Polanyi (Polanyi, 1958) most strongly emphasized the importance of tacit knowledge for the development of business and society. Such knowledge cannot be easily passed on from one person to another; it is based on skills, experiences, and ideas – and these cannot be easily expressed, codified, nor aggregated. These abstract concepts cannot be generalized. Although tacit knowledge is an important determinant for building the competitiveness of business entities, the inability to use it may have a negative impact on business activity and significantly hinder efforts to introduce organizational changes (Heine & Rindfleisch, 2013).

This is also emphasized by von Hippel (von Hippel, 1994) and Adams (Adams et al., 2016), who indicated that the transfer or sharing of codified knowledge is of little use if the real need of an organization is access to tacit knowledge of its workers. Tacit uncoded knowledge that is concentrated in units and companies in specific regions or communities of practitioners allows us to strengthen the competitiveness of business (Cowan, 2000; Kimble, 2013).

Undoubtedly, tacit knowledge is also an important source of innovation (Ganguly et al., 2019). The use of the knowledge is innovative and beneficial for organizations focused on changes. (Pérez-Luño et al., 2018). Tacit knowledge itself promotes innovation (Berraies et al., 2020). As a result of its acquisition from person to person, it can be used and shared at work and, thus, transferred to the community level. Acquiring knowledge is a prerequisite for innovation (Rutten et al., 2016); therefore, if it cannot be acquired, it cannot be shared. Moreover, sharing knowledge fosters the generation of ideas among employees, which undoubtedly fosters innovation in a company (Hussinki, 2016). As we know, both service and product innovations are market-oriented innovations (as opposed to internally oriented innovations such as processes) (Kodama, 2019).

KNOWLEDGE AND ENTREPRENEURSHIP

The goal of entrepreneurship is to generate sales and profits – usually as a result of starting one's own business. The success of such undertakings is largely correlated with the knowledge that preceded the creation of product or service innovations. This also has a profound effect on the success or failure of new ventures. Many studies that have been conducted from a human capital perspective provide evidence that aspects of knowledge facilitate the recognition or development of a business opportunity (Nicolaou et al., 2008; Marvel & Lumpkin, 2007; Marvel et al., 2016). Hidden dimensions of knowledge allow for the creation of new products, breakthrough innovations, or the survival of a venture (Chrisman & McMullan, 2004).

Research by Shane (Shane, 2010) showed the differences in tacit knowledge between entrepreneurs who achieved sales during the first years and those who did not. They showed differences in recognizing market opportunities in configuration with knowledge and sales results. Discovering opportunities requires individuals to possess and acquire certain specific forms of knowledge; this knowledge is created by a decision-maker based on previously acquired knowledge and is, therefore, useful for finding and seizing a market opportunity (Downing, 2005). Since such knowledge is the result of life experience, its accumulation is different for each person; this allows people to see opportunities based on such knowledge. Moreover, as tacit knowledge is a hard-to-follow resource, it can provide a business advantage as compared to others who do not possess it.

So, what is the relationship between knowledge and entrepreneurship? When making business decisions, an entrepreneur launches, manages, and takes the risk of an economic venture being in the center of a company's operations (including gaining knowledge for its survival and development) (Lee & Lan, 2011). The tacit knowledge that they possess is the basis of a lasting competitive advantage in the market; it builds the uniqueness of a company's competencies and knowledge resources that cannot be easily imitated by competitors. Tacit knowledge can be defined in this sense as a connection among experiences that cannot be expressed in words (Bennet & Bennet, 2008). This is a knowledge about what to make or how to do something that cannot be clearly expressed in such a way that another person can extract and recreate it. This implies that the acquisition of tacit business knowledge must be independent of conscious efforts or overt actions that are intuitive, analytical, and deliberate and that require learning skills (Wang et al., 2014).

Summarizing this part of the work, the following relationships between knowledge and entrepreneurship should be indicated (Mary George et al., 2016):
- Knowledge that is generated from external sources tends to spread it, which allows entrepreneurs to identify and seize opportunities.
- Knowledge and ideas that are created within the organization are a source for identifying opportunities.
- Tacit knowledge from extended experiences allows individuals to create and shape opportunities.
- The previous life experiences of entrepreneurs (tacit knowledge) create awareness and information on individual areas that shape the development of opportunities.
- Previous professional and educational experiences (tacit knowledge) guide individuals to different areas – as a result, individuals have different information resources that affect their abilities to recognize market opportunities.
- An entrepreneur's ability to identify opportunities and engage in innovation and business creation is shaped by the educational, professional, and social context in which the individual studies, works, and lives.

As presented, entrepreneurship depends not only on the knowledge that results from education but also on the experience that can be acquired independently or from other more experienced entrepreneurs – so tacit one. In this context, research on the intentions of students will be presented along with their assessment of the usefulness of explicit and tacit knowledge to make decisions on establishing their own business entities.

RESULTS

The objective of the paper was formulated as follow: can the experience of others be treated as a source of tacit knowledge that favor students who make decisions about running their own businesses?
There is main research question was put:

- Is tacit knowledge important in the process of creating students' entrepreneurial intentions?
- What are the sources of the tacit knowledge in business development?
- Can experience of businessmen be useful in gathering the tacit knowledge by students?
- There are additional research questions:
- Where the students can possess the knowledge (from whom)?
- What is the level of access of the students to tacit knowledge?
- Is the tacit knowledge requested to set up the business of students at the same level in all countries in study?

The research methods that were used are: desk research with literature background regarding the tacit knowledge and gathered research data analysis from questionnaire research among students in 7 countries.
The following research hypothesis was formulated:

- Students have access to the experience of other people involved in business.

The tacit knowledge support students to make decisions about starting their own enterprises.
The research is consisted of literature studies on knowledge (especially tacit) and its role in entrepreneurship. The direct research was based mainly on a questionnaire featuring questions about the entrepreneurial intentions of students and the factors that influenced them. This paper presents a fragment of the wider research results; for cognitive purposes, standard methods of presentations: as charts and conclusion from data analysis were used. The research for this paper was conducted during the period of 2018-2020.
The research was conducted simultaneously in seven countries and was based on groups of students who were enrolled in public and private universities. These countries included Poland, Ukraine, the Czech Republic, China, Vietnam, Colombia, and India. The research was done in a different university in every country to ensure a representative sample of respondents with the widest dispersion in each nation. A total of 4,651 respondents took part in the research (as shown in Table 1).

Countries	sex F	sex M	Total	%F	%M
Poland	461	249	710	65%	35%
Czech Republic	555	229	784	71%	29%
Ukraine	432	222	654	66%	34%
China	486	203	689	71%	29%
Vietnam	434	228	662	66%	34%
Colombia	288	168	456	63%	37%
India	81	621	702	12%	88%

Table 1. Number of respondents in analyzed countries

From the data presented in Table 1, a number of surveys between 456 and 784 were conducted in all countries; this provides the basis for a comparative analysis among the countries that were mentioned. In most countries, women had an advantage among the respondents (more than 60% of the answers given); India was the lone exception.
Intentions to start one's own business
First, the results of the research that was related to the entrepreneurial intentions of students in individual countries will be presented. Chart 1 presents the percentage of respondents in individual countries who declare the will to start their own enterprises or already have them.
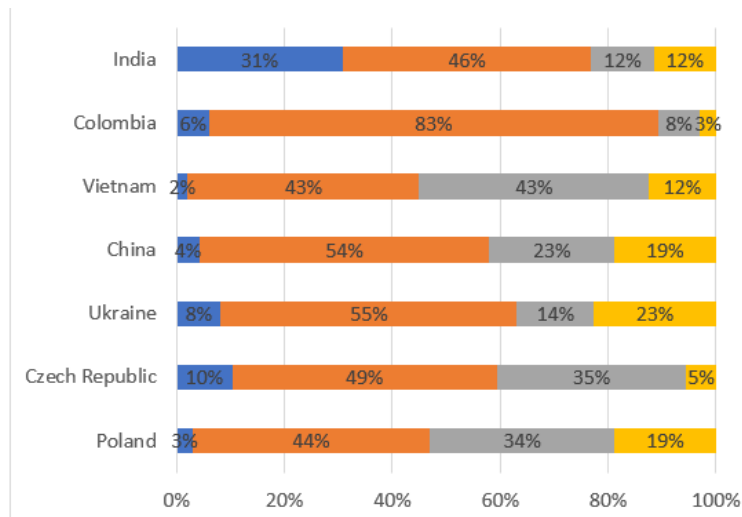
Chart 1. Answers to question "do (did) you consider the possibility of starting your own business?"
Source: own research

The answers regarding the declaration of entrepreneurial intentions are presented in Chart 1. Students had the opportunity to declare their own willingness to start their own businesses. According to the statements, the greatest entrepreneurial intentions were characteristic of the respondents from Colombia – such an answer was given by 74.34% of the respondents. It is by far the largest group among the surveyed countries. The remainder of the countries rated as follows: Ukraine – 54.89%; China – 53.84%; the Czech Republic – 49.61%; India – 46.15%; Poland – 43.99%; and Vietnam – 42.68%. Analyzing this statement in the context of the declaration of owning a business, the largest number of students who indicated that they already owned one came from India – 30.76% of the respondents answered "yes." This was the largest number by far among the researched countries – it was also greater than that which can be found in various studies of student entrepreneurship, where the standard answers are within 3-5% of the respondent group.

When arranging these responses according to the percentages of positive responses, it should be noted that 10.43% of those students in the Czech Republic made such a declaration. The remaining countries rated as follows: Ukraine – more than 8.26%; Colombia – 5.48%; China 4.2%; Poland – 2.97%; and Vietnam – 2.11%.

When assessing both responses together (i.e., the fact of having one's own business and the willingness to set it up), it should be stated that the highest levels of statements by students from Colombia (almost 80%) and India (more than 77%) were the percentages of people who were self-employed.

So, how is the assessment of the statements regarding explicit and tacit knowledge? First, the questions related to the possession of explicit knowledge will be presented. For the purposes of this research, two questions were adopted for the analysis: Do students know the necessary procedures and legal regulations that are related to setting up an enterprise? and Do students know the market in which they will compete? The answers to the above research questions are presented in Charts 2 and 3.
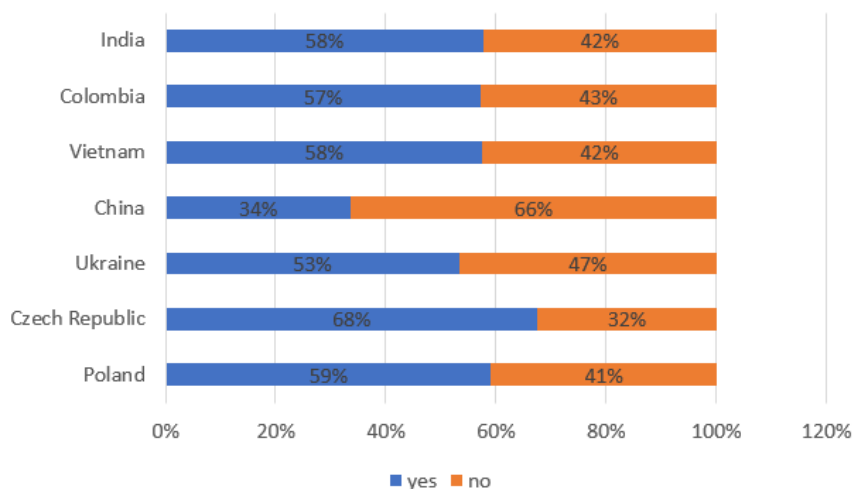
Chart 2. Answers to question "do you know how to set up your own business
(what are the necessary documents and procedures)?"
Source: own research

As shown by the data presented in Chart 2, the students knew the procedures of starting their own businesses in most of the surveyed countries – more than 50% of the responses. Only 34% of Chinese students declared such knowledge; this was the lowest of all of the countries. This can be interpreted as the fact that the respondents have explicit knowledge in the field of the procedures and legal solutions that are related to setting up a business. The next question is related to the knowledge of the market and, thus, the knowledge of the mechanisms that guide the activities in this area. This data is presented in Chart 3.
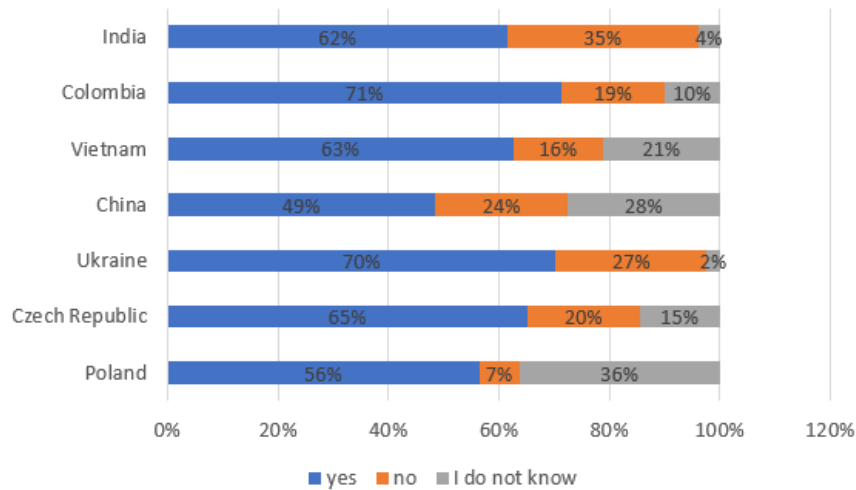
Chart 3. Answers to question "do you know the market?"
Source: own research

The answers to the question about knowing the market show that most of the surveyed countries' students declared such knowledge; this accounted for more than 60% of the answers obtained. The weakest results were characterized by China (49%) and Poland (56%).

Summing up both statements of the students, it should be stated that most of the respondents declared that they had the necessary explicit knowledge to set up their own business entities. This is indicated by both the information on the knowledge of the law and the market in which they will operate.

Next, the answers to the questions about tacit knowledge will be presented. The first question concerned the knowledge of people in the environment who had experience in running a business and could help, and the following one was related to the ability to organize financing for a new enterprise. The answers to the first question (Do you know people who are running their own businesses who could help you get started with your own?) are presented in Chart 4.
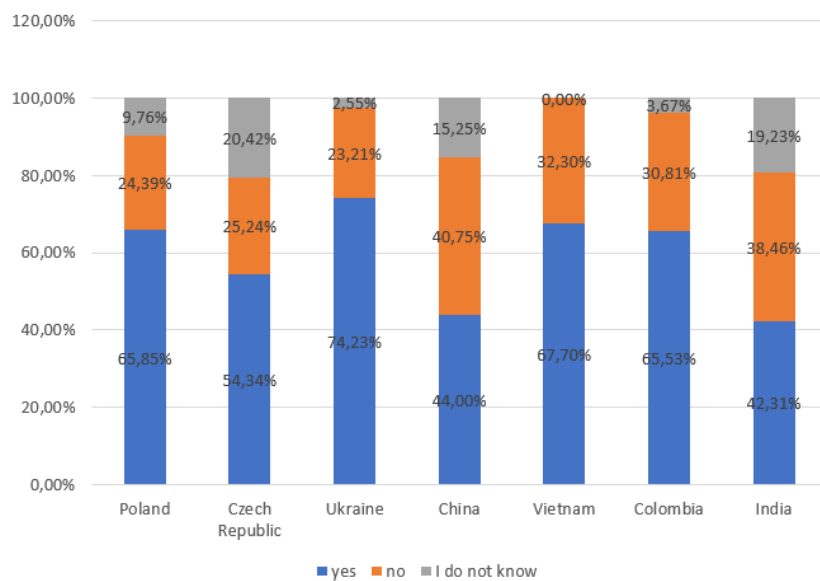
Chart 4. Answers to question "do you know people who run their own businesses
who could help you get started with your own?"
Source: own research

As can be seen from the answers presented in Chart 4, most of the students knew people who ran their own businesses who could help them start a business by providing the necessary knowledge and experience, among other things. This was confirmed by the majority of the respondents (apart from the responses from China and India). The above answer suggests that students have the resources to acquire the necessary tacit knowledge to run their own businesses. The next question concerned the knowledge of the organization of financial support for one's own business. This is a question that can be seen as part of tacit knowledge, especially when obtaining financing for new activities is not easy and looking for different opportunities for raising seed capital is necessary. The answers to the question "Do you know how to organize financial resources for starting a business?" are presented in Chart 5.
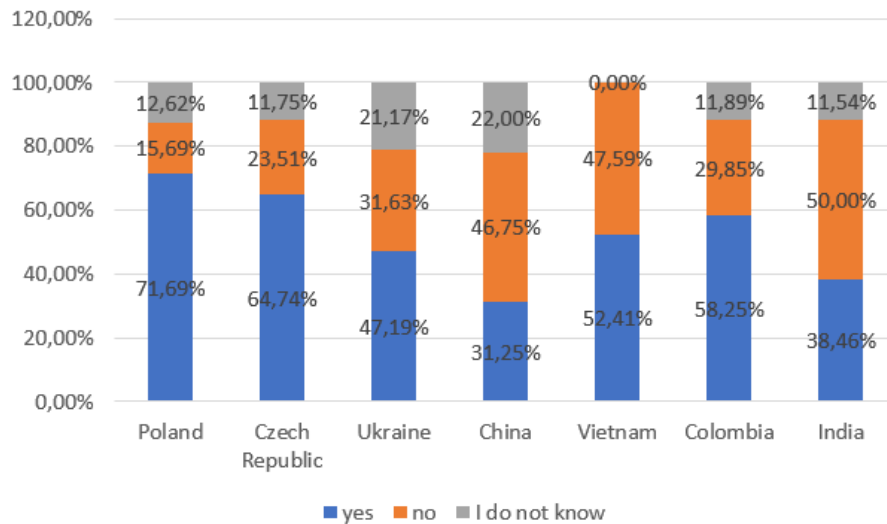
Chart 5. Answers to question "do you know how to organize financial resources for starting a business?"
Source: own research

The data presented in Chart 5 show that, in most of the surveyed countries, the respondents had the necessary knowledge and experience to organize financial resources for starting their own business. These were mostly respondents from Poland and the Czech Republic – more than 60% of the results. As in the case of the previous question, the respondents from China and India had the lowest degrees of knowledge. Assessing both questions at the same time, it can be concluded that the Asian respondents from China and India had the greatest problem with acquiring tacit knowledge and applying it to starting a business, even if the students from India had previously declared the highest number of the already-run business ventures.

DISCUSSION
Entrepreneurship of students is important in every country in the world and is a factor in the development of economies. However, this depends on many factors gathering knowledge and experience from the time they spend at universities. This research attempts to answer set the objective, create research questions and set the hypothesis. The objective of the paper was formulated: can the experience of others be treated as a source of tacit knowledge that favor students who make decisions about running their own businesses?

There are main research questions was put:
• Is tacit knowledge important in the process of creating students' entrepreneurial intentions?
• What are the sources of the tacit knowledge in business development?
• Can experience of businessmen be useful in gathering the tacit knowledge by students?

There are additional research questions:
• Where the students can possess the knowledge (from whom)?
• What is the level of access of the students to tacit knowledge?
• Is the tacit knowledge requested to set up the business of students at the same level in all countries in study?

The research methods that were used are: desk research with literature background regarding the tacit knowledge and gathered research data analysis from questionnaire research among students in 7 countries.
The following research hypothesis was formulated:
• Students have access to the experience of other people involved in business.
• The tacit knowledge support students to make decisions about starting their own enterprises.

As the research results that are presented in this study show, knowledge is an extremely important determinant of entrepreneurship and (in general) factor for making any economic decision in the both: literature and the opinions of the respondents. This is confirmed by the research presented in the paper here. The positive assessment of the usefulness of tacit knowledge for business activity is generally noticed. That means the main objective of the research was fulfilled – there is a relation between the tacit knowledge and the business intentions done by the students. At the same time, it should be noted that the respondents could boast to having both types of knowledge in most cases. This level varied from country to country. Students from six surveyed countries (the Czech Republic, Poland, India, Colombia, Ukraine, and Vietnam) are prepared to the greatest extent to run a business in terms of their knowledge.

As regarding the answers that are related to main question, tacit knowledge is important in the process of creating students' entrepreneurial intentions – as its presented in the research results from the literature. The sources of the tacit knowledge are different, generally, they are based on the experience of other people (in business but not only) and the level of its hidness. The experience of businessmen is useful in gathering the tacit knowledge by students, especially in the building the position of their business in the market but also in creating the relations in and out of the own firm.

Answering the additional questions, the sources of possessed the tacit knowledge are other people who have the experience in running the business. That can be members of the families that provide own company but also the other businessmen who run the firms. Of course, based on literature there are many of other sources of knowledge. What is especially interesting, the access to the tacit knowledge, can be open base on the activities students can have during their study time. They can be part of the students' scientific groups, can actively participate in research done by academic staff, participate in the additional course of self-motivation, providing the business and other. Referred to the research we can notice, the students generally have quite low level of willingness to be part of such a events or activities. Nevertheless, in our opinion they have the possibilities – but do not want to use them.

Base on this, the second research question could be answered. The level of access to the knowledge, especially the tacit one, is generally good, but different in a country we have examined (the 3rd additional question). The Chinese and Indian students were the least prepared for entrepreneurship in terms of knowing the persons who can help them to set up own business. So, the possibility to get access to tacit knowledge is the lowest there. Similarly, when we discuss about explicit knowledge in both mentioned above countries the level of access is generally at the low level. Perhaps this is related to the method of preparing students for the reality of the labor market and opening their own enterprises. This can be a derivative of the universities system in the examined countries. It is also possible that cultural and economic factors that were not studied here are significant.

The last additional research question there are significant differences among the countries in study. It is especially related to Chinese respondents. Across all the questions they have the lowest level of explicit and tacit knowledge. In some questions as knowing of people and financial procedures the Indian students were also at the relatively lower level. Other countries' respondents have significant different answers with highly bigger level of both types of knowledge. Again, this can be an effect of the study systems in the countries. Different system, even if have the same general objectives, have a different way to realize it. This can be the main reason for the differences.

On the basis of the presented research results, it can be assumed that the research hypothesis Students have access to the experience of other people involved in business was positively verified. The second: The tacit knowledge support students to make decisions about starting their own enterprises was also positively verified. This does not apply to Chinese students, however, as the research results indicated that they do not possess tacit knowledge.

The research on the students' intentions of the entrepreneurship is the topic to discover in a different country. Referred to current times – the coronavirus pandemic, it highly influences all the society groups – including students. This is potential target for the continuing the research. Moreover, the analysis of presented data based on the different time periods will be very valuable to compare how the intentions and their factors have changes through the years.

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PROCESS AND EFFECTS OF THE INTRODUCTION OF SMART APPS IN THE RETAIL STORE

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Abstract

The use of the smartphone is transforming the buying process. This time the pressure is neither cost nor efficiency; it is the customers. In-store retailing must assume the habits of use of smart apps as an evolution towards Phygital Retail, point of union of the physical and digital stimuli. The work exposes the evolution towards these new concepts, which are considered in the most innovative literature. It includes an empirical investigation with panel data from a supermarket chain that helps to study the effects of the smart app on retailer performance. the results indicate that an improvement is achieved in the number of visits to the store and in the average ticket, although the implementation process of the smart app is irregular, requiring strong support from sales promotion techniques.

Keywords: Retail, In-store, Apps, Smart, Phygital.

INTRODUCTION

The phenomenon of the digital transformation is reaching all sectors (Omarini, 2018), broken down into seven essential characteristics: hyper-connectivity, unlimited power of everything virtual, artificial intelligence, storage in the cloud, the proliferation of digital sensors, and the development of cybersecurity (Stone et al., 2017). The retail industry is changing dramatically; a significant determinant of change is the digital technology that is associated with mobile innovations. (Yildirim & Cengel, 2017). The conjunction of digital and wireless technologies is revolutionizing the use of smartphones (Pantano & Gandini, 2017).

The reasons for adopting smartphones by consumers can be advantages or disadvantages (Gupta & Arora, 2017). The ICTs offer three fields of value to the buyer: cost and effort savings (prices, convenience), utility benefits (information, choice, purchase lists), and symbolic benefits (use of technology, ewom) (Willems et al., 2017a). As reasons against it, the literature points out: the real efficacy, the anxiety it generates, and the real relative advantages (Gupta & Arora, 2017). But the use of the smartphone is becoming a main habit in purchasing behaviors (McLean, 2020; Rodríguez-Torrico, 2019).

The introduction of smartphones is changing the marketing and retail paradigm, altering the shopping experience. (Belghiti et al., 2017). A new type of purchase, where the boundaries between physical and digital concepts do not exist, is transforming this paradigm (Mustajbasic, 2018). The online and offline terms are converging; things are no longer off or online, but both at the same time. Therefore, the Retail in-store must be redesigned through innovations in the critical areas of the store to digitize the purchase process (Van Tichelen, 2019).

Smartphones are extraordinary platforms for customers to regularly develop interactions with the retailer, which reinforces the experience and commitment (Wang et al., 2015). Digital ICTs and smartphones must play a central role in the new retailing. (Pantano & Gandini, 2017).

The issue of smartphones requires a thorough study by the retail literature. (Yildirim & Cengel, 2017). In this sense, the objective of this work is twofold, conceptual and empirical.

The term Smart Retail is already present in various academics (Roy et al., 2017; Williams et al., 2017). Therefore, SR is conceptualizing on the changes that ICTs are producing in the retail purchase processes towards the Phygital Retail. It studies the strategic and competitive perspective against omnichannel (Rivert et al., 2018). The concept of phygital experience is the core of Phygital Retail (Belghiti et al., 20017; Moravcikova & Kliestikova, 2017; Van Tichelen, 2019), so it will focus an essential part from work.

The development of Phygital Retail is significant for retail in-store. Above all, if ICTs developments are made based on the smartphone. The literature

indicates that if retail companies efficiently adopt smartphones, they will not only increase their sales but also focus business management on the value of the buyer, which will allow them to be more competitive (Inman & Nikolova, 2017). Therefore, the empirical part focuses on the development of fieldwork that allows achieving some meetings on the financial results for innovative retailers in Phygital Retail.

SMART RETAIL AND PHYGITAL EXPERIENCE

Smart Retail (SR) concept, proposed by Pantano & Timmermans (2014), is defined as a technological platform that integrates physical resources and information technologies that offers explicit retail information and efficient services through mobile terminals (Roy et al., 2017). SR has a definitive final objective in satisfying the requirements of consumers in terms of convenience, response time, and improvement of their decisions. ICTs are fundamental for the SR in that they exert a significant influence on the joint creation of the experiences of the buyers, which allows substantially improving the effectiveness and competitiveness of the stores (Buonincontri & Micera, 2016).

Pantano & Viassone (2014) have classified the ICTs for SR in 3 types: (1) digital display/totems, (2) Mobile apps, (3) Hybrid systems (that move with the user through the store: carts, caddies). However, the most recent technological evolution has focused all attention on smartphones (Willems et al., 2017a). Above all, from the invention of the Apple Beacons (Cushman, 2019). The essential contributions of the smartphones in the in-store retail are:

- The buyer-retailer interconnection: consumer access information through their mobile terminals, messages, services, and offers are customized (Chou et al., 2016).
- Empowerment of the buyer: the buyer gains total information power (Nordstrom, 2016).
- Confidence gains by proximity: it is possible to communicate information according to their location (Andrews et al., 2019).
- Operation of the App versus the Web: the interface is friendly (Natarajan et al., 2017).
- Analytics: the information obtained is significant and of high quality (Roggeveen & Grewal, 2016).
- Omnichannel: its synergies are maximum among all physical and digital channels (Faulds et al., 2018; Pantano et al., 2017a).

The mobility of the smartphone's merges with the ubiquity of the Internet itself. The term "mobiquity" (coined by Antonczak et al., 2017), generates a new mixed reality. Nofal et al. (2017) establishes three beneficial levels of mixed reality: (level 1) augmented reality that requires some type of interaction so that digital acts with physical; (level 2) integrated reality that includes new non-visual sensations of reality; and (level 3) acted reality that implies the immersion of the individual in a new type of reality.

Mobiquity leads to a new type of shopping experience, primarily through the personalization, the knowledge of the context and monitorization in real-time (Guttentag, 2019). The role of technologies should be to enrich the customer experience (Rivet et al., 2018). It is about creating relationships with customers, making them an active participant in the co-creation of the service (Garaus et al., 2017; Ramaswamy & Ozcan, 2019).

ICTs have gone from being a mediator of experiences to understanding their core with the emergence of the Phygital Experience concept. The phygital term is not the sum of the physical and the digital, but it is much more than that. There are several definitions, more or less broad, but the main ideas should be (Van Tichelen, 2019): (a) merger, other than the sum, (b) customize; (c) experience, co-creation; and (d) satisfaction, lasting loyalty.

The term phygital describes the symbiosis of physical space and virtual space. The appearances of phygital and the change in retail behavior alter the perception of retail space, as well as the interaction with it (Neuburger et al., 2018; Purcarea, 2018): "The phygital experience consists in hybridizing physical and digital components at the same time and in the same place "(Belghiti et al., 2017, 61).

Goethals (2017) proposes the existence of four main types of phygital experience:
- Informational phygital (this is about providing additional information to improve the shopping experience)
- Transactional phygital (it is about stimulating the purchases, it is the most used in Retail)
- Entertainment phygital (specific actions of Virtual Reality, Augmented Reality).
- Support phygital (assistance to the buyer, for example, to locate products).

Recent works on phygitalization use the SSIT (Self Service Information Technology) model and focus on interactive decision-making ICTs that allow the buyer to be fully autonomous (Feenstra & Glerant, 2017). This model identifies up to four functional dimensions (Assistant, Educator, Comforter, and Recommender) and three hedonic dimensions (Rehumanize, Seduce, and Close the purchase as satisfactory).

The buyer's data collection marks the strategy of digital experience (U-Lang et al., 2016). The sensors are the central equipment to generate the phygital experience (Nofal et al., 2017) using the synchronization of the physical and the digital.

Several authors raise the opportunity for retailers to integrate the phygital concept into omnichannel strategies (Moravcikova & Kliestikova, 2017; Van Tichelen, 2019) to create the phenomenon of "all in one shopping" (AIO) (see figure 1).
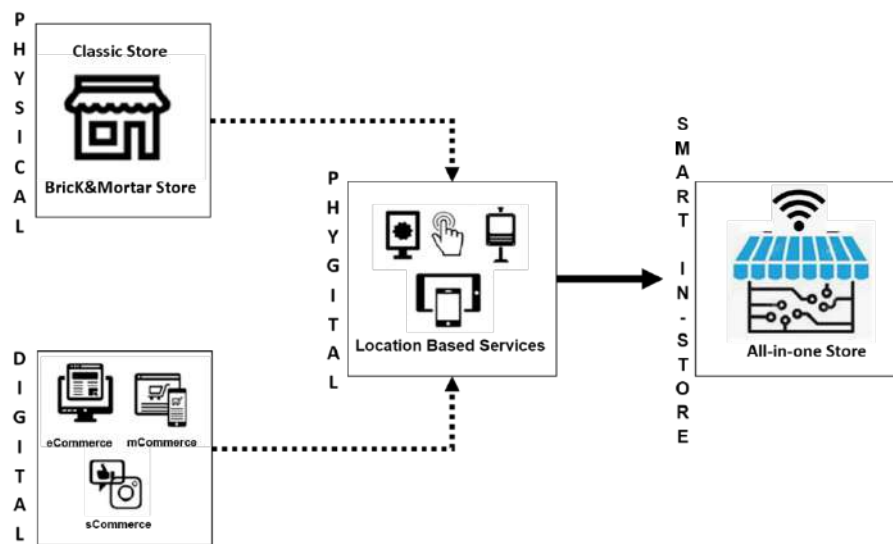
Figure 1: The integration of the channels in the all-in-one retail (AIO)
Fuente: Self-made.

In line with the novelty of the phygital concept, there is little research on it. Most of the works are very theoretical and very qualitative, and also study the impact of some specific form of technology (QR, NFC, RFID, Beacons) when the reality is that smartphones integrate the phygital experience (Cushman, 2019). Several studies consider the segmentation variables that explain the adoption of smart apps in in-retail (GROB, 2018): gender (Marinkovic et al., 2019; Yapp et al., 2018), age (Fuentes & Sringstedt, 2017), millennials (Leon, 2018), household size (Cho et al., 2019). And also, on the issue of habit development in the use of these apps (Tan et al., 2020; Ye et al., 2020). Indeed, most of the research in retailing has a perspective of the online channel. However, it is necessary to incorporate all the digital contributions of smartphones to physical stores (Pantano et al., 2016).

In this context, it is not only necessary to study the role of ICT, but also that of the people who demand the experiences of phygital (Liburd et al., 2017). As the Marketing Science Institute indicates, the study of the buyer's experience in the technological context must be a priority (Roy et al., 2017).

OBJECTIVES AND HYPOTHESES

This work follows the line of Willems et al. (2019), as it tries to study the unexplored case of the smartphone's role for in-store retailers. There is not much research, and most of it refers to M-Commerce (Huang et al. 2016) and M-Coupons (Van Heerde et al., 2019).

As Andrews et al. (2019) indicate, it is necessary more research several essential aspects for the smartphone and retail: the privacy demanded, the spatial target, the multi-channel behavior, and the return on investment. The objective of this work corresponds to the fourth topic, that is, study the performance of the smartphone in-store.

The model proposed by Van Tichelen (2019) (see figure 2) is interesting in this regard. Although, the different effects it poses must be contrasted with the literature, and even so, most of them need in-depth research.
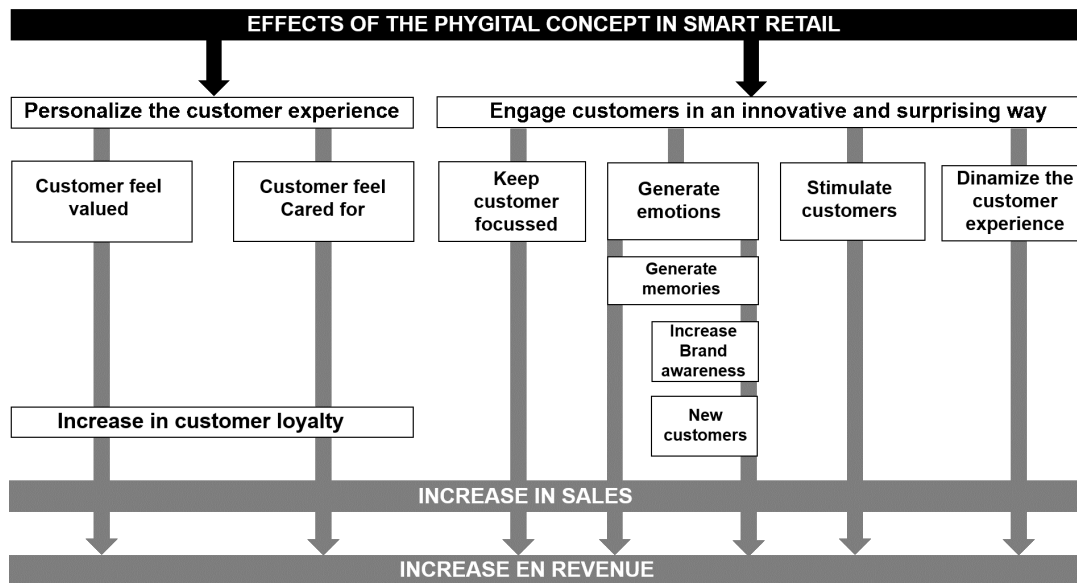
Figure 2: Effects of SR
Source: Self-made adapted from Van Tichelen, 2019.

1. Customize the experience: SR and phygital experience have the positive effects of commitment and loyalty (Gill et al., 2017; Van Heerde, 2019). The smartphone is an instrument of great value to obtain information from each customer and personalize their shopping experience (Cao et al., 2018).

2. Involve customers: The buyer assumes the perception of greater control in the SR (Roy et al., 2017). The ICTs utilities allow buyers to better memorize their shopping experiences (Moravcikova et Kliestikova, 2017). Also, app sales promotion plays a crucial role in buyer involvement (Van Heerde et al., 2019).

The objective of this work focuses on quantitative effects related to the performance of the retailer: Sales and Revenue. Kang et al. (2015) already indicated that the objectives of the Apps were to increase the average purchase ticket and build customer loyalty. Kim et al. (2015) makes a comparison between holders of a retail app and those who do not and find sales increases in the former. The increase occurs both in purchase intentions (Bradel & Gips, 2014) and in impulse purchases with the smartphone

(Kowatsch & Maass, 2010). In terms of revenue, there are authors (Cat et al., 2018) who indicate how apps can increase the cash flow of retailer in-store, and that, therefore, investments would be justified, however, with little empirical evidence. The work of Li (2018) had studied the change process from the physical loyalty card to the virtual card, but without going into the quantitative considerations of its effects. Thus, the hypotheses raised in this work are:

H1: Buyers who adopt the phygital app of a retailer (in-store) increase the frequency of their purchases.

H2: Buyers who adopt the phygital app of a retailer (in-store) increase the average gross ticket of their purchases.

H2.1: The buyers who adopt the phygital app of a retailer (in-store) that make the least expensive are the ones who increase the frequency of purchases and the average gross ticket of their purchases.

H3: The net revenue of the retailer (in-store) that develops a phygital app is increasing progressively.

Figure 3 summarizes, graphically, the interrelationships between the hypotheses raised in this work.
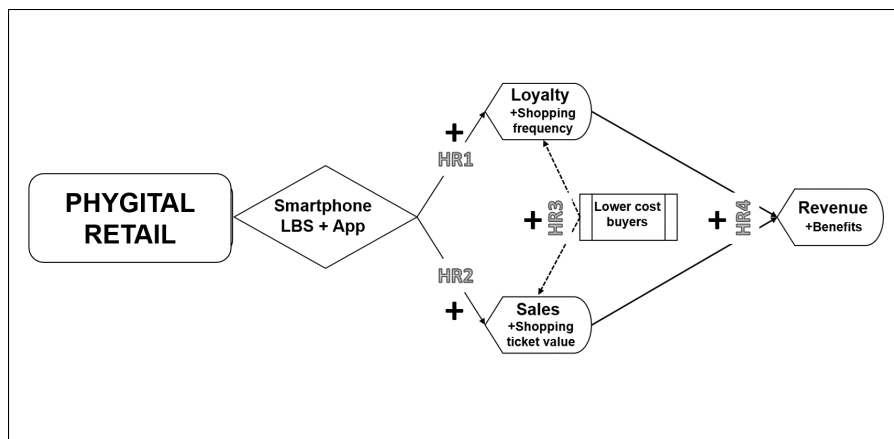
Figure 3: Research hypothesis

METHODOLOGY AND RESULTS

The empirical research has operated with a database provided by a crucial Spanish supermarket company, which logically wants to remain anonymous. The company has created an innovation department, attracting talent from abroad, whose mission will be the development of the omnichannel and phygital orientation of the supermarket group.

Its work has begun with the launch (2021) of the first smart app, with phygital utilities, within its market area. Thus, the app incorporates geolocation and customization utilities to:
- Send personalized information and communicate with a chatbot system.
- Performed various sales promotions actions (general assortment offers exclusive to app holders, personalized offers of habitual purchase products, and permanent access to the discount accumulated).

Table 1 summarizes the characteristics of the generated database. It was not possible to work with sociodemographic data of clients for reasons of legal protection. Nor, with the type of sales promotion activity in each week, since the existence of several simultaneous actions prevents the control of this data. However, the total discount achieved records.

Type of Data	Explanation
Loyalty Card Code	Each code corresponds (usually) to home since it is possible to have accessory cards. Over 680 codes provided, 644 have been worked on when debugging errors. All the data provided correspond to loyalty cards converted into apps during the study period.
Supermarket number	Two supermarkets located in the same city and zip code.
Week number	The data correspond to purchases for over 22 weeks: the first ten weeks are before the launch of the app, those of the following 12 weeks correspond to the existence of the new app. Each of the weeks has added the purchase data. In total, data corresponding to 44041 purchase operations has been available; 16410 before and 27631 after app. A variable includes the number of purchases made for each card code per week.
Gross ticket	A variable includes the total purchases, in gross, of each card code per week.
Net ticket	A variable collects the total paid, for purchases, for each card code per week.
Ticket discount	A variable includes the percentage of discount obtained, in purchases, for each card code per week.

Table 1: Data set

The statistical results indicate the absence of differences between the two supermarkets for each of the data. Also, the student's t-tests verify the correct significance of their statistical means. All of them have had alpha values between 0.02 and 0.04. So, the validity of them is accepted. Figure 4 contains the graphical representation in time of average values for each week of each of the four variables included in the database.
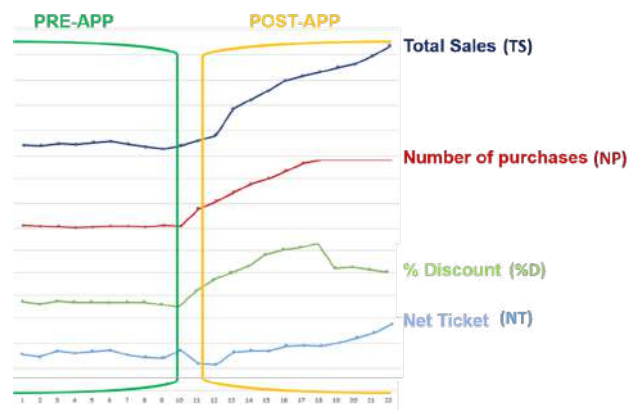
Figure 4: The average results per week draw graphically

The previous figure visually highlights several changes in the variables. The launch of the app increases sales and the number of weekly purchase tickets. However, the increase in the promotional attraction with discounts causes a slight fall in the net ticket. After that initial period, the four variables show continuous improvements.

A dynamic statistical analysis allows studying the changes produced with the app. It compares, through the t-student statistic, the existence of significant differences between each week: the first ten weeks have no significant differences, but in the following 12 weeks (see figure 5).
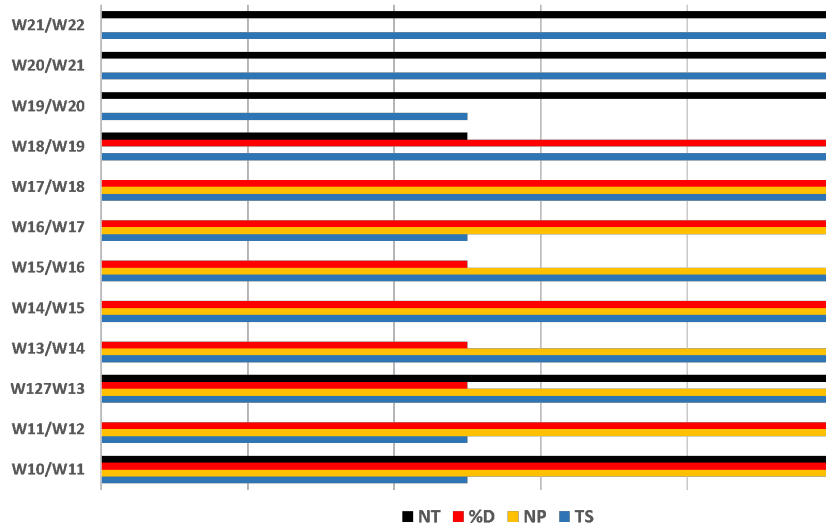
Figure 5: Results t-student test by pairs of successive weeks

As of week 11, which corresponds to the launch of the app, there are significant differences:
• The Total Sales variable increases significantly throughout the period (12 weeks).
• The variable Number of Purchases also does it, but only until week 18, after that, it lacks significant changes.
• The Discount obtained in purchases has similar behavior, growing significantly until week 19.
• The effect of the discount influences to the Net Ticket variable that, in addition to specific changes in weeks 11 and 13, begins to increase significantly in week 19.

Figure 6 shows the implementation process of the app among loyalty card customers. In the beginning, the process is slower, 25% excess at five weeks, and 50% at eight weeks. The highest discharge rates occur in the last four weeks of the study. Also, the improvement of all the data arrives from the 50% share of operational apps.
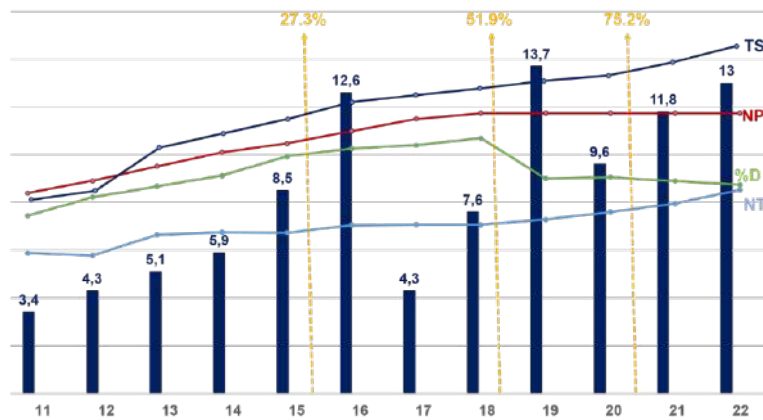
Figure 6: Week that joins the App / Evolution of variables

The relationship between the week of downloading the app and the purchase variables is exciting. An ANOVA statistical test finds significant correlations of the app week with the volume of sales and the number of purchases:

- As figure 7 indicates, the size of sales and the number of purchases is related, in a significant way, with the more exceptional promptness in the use of the App and vice-versa.
- On the other hand, figure 8 shows significant relationships, afterward, with the variables total sales, number of purchases, and the average net ticket. Similarly, customers with higher values are those who first implemented the use of the app and vice-versa.
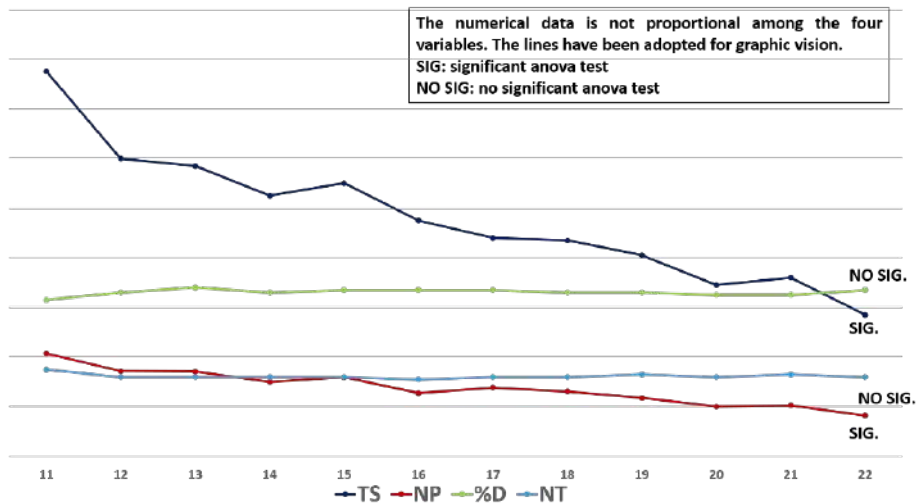
Figure 7: Means of previous values according to the week of the download of the app
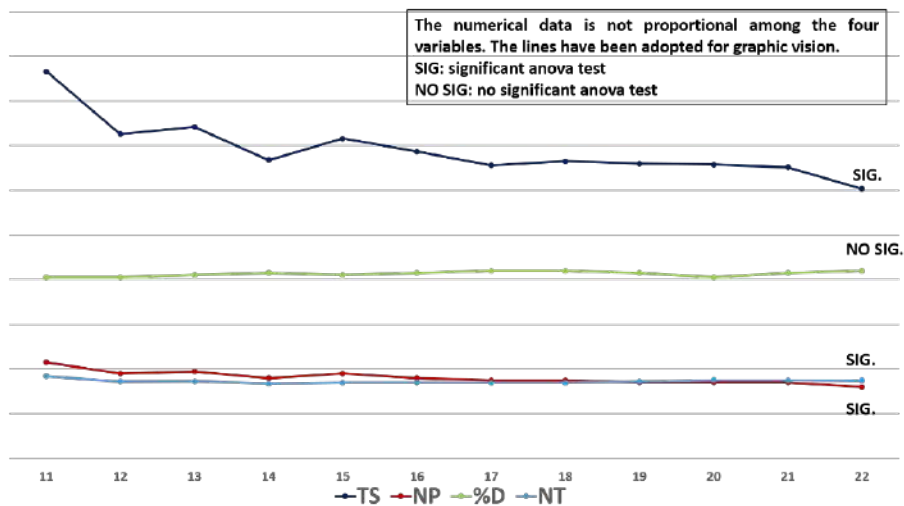
Figure 8: Means of following values according to the week of the download of the app

The statistical analysis has created a new dichotomous variable: (1) buyers below the average of the initial period (without the app), (2) buyers above the average of the same period — both for the Total Sales variable and for the Number of Purchases. Figure 9 shows the behavior of the two types of buyers in the App period.
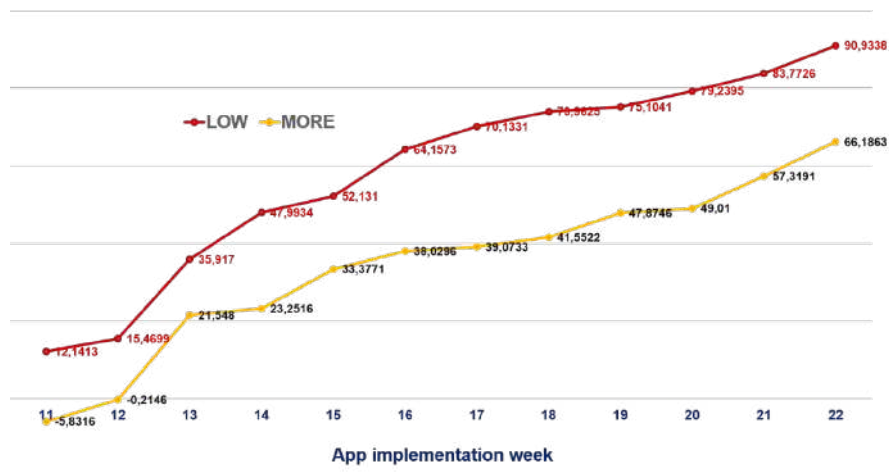
Figure 9: Discriminant analysis between buyers below and above the average of total sales (TS)

The Discriminant Analysis used is adequate, since every week (see table 2). The performance of the discriminant process by steps considers the differences in weeks valid (in this order): 18, 20, 11, 13, 16, 17, and 12 than they have positive coefficients for the type of buyers below the average (Low).

Function	Eigenvalue	Canonical Correlation	Wilks Lambda	Chi-square	Sig.
1	.678	.636	.596	330.345	.000
Coefficients of canonical discriminant function					
TSALESincrease11			0.358		
TSALESincrease12			0.229		
TSALESincrease13			0.218		
TSALESincrease16			0.423		
TSALESincrease17			0.650		
TSALESincrease18			0.801		
TSALESincrease20			0.704		
Functions in group centroids					
Less than average			.822		
More than average			-.822		

Table 2: Statistics of the discriminant analysis TS

Finally, the elasticities, general and arc, are estimated for the Total Sales, Number of Purchases, Average Net Ticket, and Price (1-% discount). Table 3 contains the average data for each period and the elasticity calculations in table 4.

Variables	Pre-App	Post-App	%Increment
Total Sales	88.45	134.79	+52.39%
Number of Purchases	2.54	3.57	+40.55%
% Discount (Price = 1-% discount)	6.6% (93.4%)	8.3% (91.7%)	+25.75%
Average Net Ticket	32.88	34.33	+4.41%

Table 3: Average data per App period, customer per week

Formulation	Elasticity	TS	NP	ANT	Sense
$E_p = \dfrac{\Delta Q_d/Q_d}{\Delta P/P}$	General	-29.1	-22.5	-2.5	Relatively Elastic
$\overline{E_p} = \dfrac{P_1+P_2}{Q_{d_1}+Q_{d_2}} \times \dfrac{\Delta Q_d}{\Delta P}$	Arc	-22.6	-18.3	-2.3	Relatively Elastic

Table 4: Total Sales Elasticities, Number of Purchases, and Average Net Ticket over Price.

Consequently, high increases in total sales are a result of a more significant increase in the number of purchase transactions than by the change in the average purchase ticket.

With the previous statistical results, the contrasts of the hypotheses as:
- H1. Accepted: The frequency of purchases increases.
- H2. Rejected: The average purchase ticket does not vary.
- H2.1. It is partially accepted: the low buyers increase more frequency of purchases.
- H3: Accepted: the performance improves in total sales.

CONCLUSIONS AND IMPLICATIONS

ICTS constitutes a fundamental change factor in the commerce sector. Faced with the classic perspective of innovations promoted by Retailers with objectives of cost savings and efficiency improvements, the current technological pressure comes from buyers. The smartphone has a quantitative development in the spectacular society: almost 3,000 million users, more than 5,000 smartphone devices, and 7,800 million SIMs contracted in the world (MWC, 2019). However, what is important is the qualitative change in the behavior of individuals as buyers in retail in particular. The smartphone not only provides the buyer with the functional utilities of a permanently connected computer, but buyers begin to value hedonic utilities in their use (Willems et al., 2017b). The significant development of data intelligence innovations has the smartphone as the primary device. The interconnection of and with the smartphone is based on technologies such as the Internet of Things,

Learning Machines, Chatbots, RFID codes, Virtual and Immersion Realities, Augmented Reality (Roy et al., 2017). The centrality of smartphones is coming to all sectors, including, notably, the case of retail (Ramaswamy and Ozcan, 2019). SR is configured as the new integrating concept of In-Store and Off-Store, on the one hand, and physical and digital, on the other (Fulgoni and Lipsman, 2016). Its objective is the deep satisfaction of consumer demands through new phygital experiences (Ostrom et al., 2015).

The term phygital will be central in retail, especially in the in-store. Digital technologies will merge with the physical elements creating new experiences for the client based on co-creation, personalization, and monitoring (Buonincontri and Micera, 2016). With the design of phygital experiences, retailers will also obtain clear improvements in customer loyalty (Van Tichelen, 2019).

For SR, walking the path of loyal customers is mandatory. Right there, it will find the data that must be used by the intelligence inside the store. Therefore, retailers are turning to apps on smartphones as new technological tools linked to loyalty programs (Pantano et al., 2017a). Retail apps are the doors that communicate the smartification of new purchase processes (Pantano et al., 2017b).

There are abundant experiences in retailer apps (Grewal et al., 2017). However, most empirical research has focused on e-commerce cases (Yildirim and Cengel, 2017), that is, off-store retail. Also, in-store apps, there are significant development differences, since in most cases, it is merely QR codes that identify the customer's loyalty card number and little else. More recently, new smart utilities (Synchrony, 2018) bring new services: geolocation using beacons, chat chatting, promotional actions using virtual reality.

The case studied in this work coincides with a second-generation app, with smart additions that place it within the framework of the SR concept. The results conclude the positive effects on retail performance. The altered primary variable is the frequency of purchase: customers who download the app to use in supermarkets significantly increase the number of purchases. Besides, this phenomenon has a higher intensity on customers with lower previous value for the retailer.

The average purchase ticket, however, is not significantly altered. Moreover, even at the beginning, it falls slightly due to the pressure of the promotional actions. Sales promotion accompanies the launch of the app, although it tends to stabilize over time.

The adoption process is growing. That is, there is no massive download from the beginning, but it takes even longer in the first moments and accelerates more in the end. Also, those who first download the app are just the customers who make purchases of the most massive gross ticket.

In short, the results of the performance are successful for the Retailer that increases the revenue from its loyalty card customers. An increase that is explained, mainly, by increasing the number of visits to stores. Although at the cost of an increase in the promotional percentage.

Theoretical and Practical Implications

The concept of SR should also focus on store commerce. ICTs move towards portability, and therefore towards use in stores. In the face of digital off-store dicomotization with physical in-store, SR must concentrate on creating new phygital experiences. It implies a substantial change from the omnichannel phenomenon to the all-in-one system for in-store retailers.

Besides, the phygital phenomenon should not be limited to the consideration of functional advantages, but, the strength of the smartphone in the hands of the customer, will incorporate hedonic utilities possibly of great value.

Therefore, if SR was the terminology brought by e-commerce and its off-store modalities, Phygital Retail may be the new term for working on the future of in-store retail.

There are enough Smart technologies that come together in the customers' smartphone to start evolving towards Phygital Retail. A path that, for many retailers, must begin from loyalty programs. Authentic sources of data that managed through smartphones represent an essential leap of intelligence in retail stores.

The apps are currently the most accessible, most straightforward, and most accepted technology in the market to bet on retail phygitalization.

They can integrate the various digital utilities right at the physical point of the store that interests the customer and the retailer.

The introduction of an app with digital utilities has demonstrated its positive effect on the performance of the Retailer. Although it is essential, a period of progressive adoption time and a strong effort in the promotional actions of the app. Also, the attraction is superior for those customers who already spent more in the store, although, in the medium term, the lower-cost customers cause the highest sales growth. Finally, the Retailer must consider that the real effect is a significant increase in visits to the store, and not so much in the value of the purchases.

Limitations and Future Research

The primary constraints are in the empirical part. When working with a real database of a retail company, the data structure has very few variables, which are also organized by weeks and accumulated by customers. The actual results of the work re limited by the number of variables, the absence of more specific data about the client, and the specific phygital actions at each moment.

Just such limitations should mark the lines of future research. First, there is work to send a questionnaire to each of the clients of this study. This new questionnaire will substantially expand the knowledge of other aspects of interest.

On the other hand, this line of research must combine with smartphone technologies and the in-store retail utilities. Consequently, the ultimate goal should be to develop a sufficiently Smart data collection protocol.

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SPONSORED ADVERTISEMENT: DOES IT CONTRIBUTE TO BRAND EQUITY?

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Abstract

This study attempted to investigate how sponsored advertisements on social media sites contribute toward brand equity. The research study adopts multiple methods in a series of three studies using two different types of sponsored advertisements involving 683 participants. The data analysis of this study has been done through Exploratory Factor Analysis, multiple regression, and t-test. This study was guided by Aaker's (1996) brand equity model. This study reveals that sponsored advertisement contributes toward developing brand equity through perceived value, trust, and attitudes, while perceived value is the most influential factor among the three. The findings of this research enable managers to learn about the relationship between their advertising on social media and each construct of brand equity and the way their target customers perceives their advertisement on Instagram. This research contributes to an understanding of consumers' perception of sponsored ads on social media and also helps develop a theoretical foundation on the impact of sponsored ads on brand equity dimensions.

Keywords: Brand equity, awareness, association, quality, loyalty

INTRODUCTION

Branding has always been an important concept in marketing. In recent years, it has received more attention as companies try to allocate more resources to build, enhance, and maintain their brand equity. Brand equity is an intangible asset, which is related to customers' perception of a brand's value. It helps to differentiate a company's brand product and services from other firms (Kim et al., 2002). Brand equity has also been described as the added value that a product or service acquires from its brand and it helps companies to gain competitive advantage (Aaker, 1991). When a company possess strong brand equity, its customers will hesitate less in paying higher for the offered products and services. Strong brand equity delivers a competitive advantage to a company and develops a barrier for potential competitors to enter that market (Biedenbach et al., 2015). Brand equity in firms is mainly influenced by what their customers have learned and experienced with regard to their brand (Pinar et al., 2014). A company with strong brand equity can put premium prices on its product or service and gain more profits (Keller, 1993). Brand equity plays a crucial role in both online and offline marketplace, however the number of businesses and marketing activities online

has been continuously increasing over the past years due to the role of internet and the growing presence of customers in shopping online. Thus, companies always attempt to build and maintain strong brand equity.

Building self-sustaining traffic on company's social media page is a constant challenge for marketers and it becomes even more complex when members of brand pages are usually more expressive in sharing their own experiences on social media (Bambauer & Mangold, 2011). Hence, it is vital to realize to what extent social media marketing can contribute to brand equity. The emergence of social media and its related marketing activates caused marketing researchers to explore new perspectives in brand equity.

Understanding brand equity factors will help marketers to plan their social media marketing strategies in a way that helps them to increase their brand equity. Brands can use social media as an effective platform to foster close communication and integration with their clients as an ideal platform. Having access to a greater number of users on social media networks can have a positive influence on the brand. A recent study shows that having a good relationship and interaction with a brand on social media can lead to about 70% of customers to recommend the brand to

others (Hainla, 2017). Hanaysha (2016) reveals that social media advertisement plays a crucial role in the success of businesses as it enables firms to build and improve their brand equity through advertising on social media. This study shows the positive influence of social media advertising on all aspects of brand equity.

Social media platforms have become a reliable source of information creating many changes in the marketing field (Rishi & Sharma, 2017). It enables organizations to strengthen their customer interactions and relationship. This relationship is very vital as competition is increasing in every marketplace. Therefore, creating and maintaining a good relationship with consumers is an advantage of using social media, which helps firms to increase their brand equity. The growing popularity of social media among firms and customers has generated a new environment that allows companies to improve their brand management. Social media platforms allow brands to find out how their customers judge them and how their brand is perceived. The ongoing improving features of social media enable firms to think forward and plan for an improvement in their brand management over time (Khadim et al., 2018). Marketers' spending on social media advertisement has been consistently increasing for last five years, from $21.49 billion dollars in 2017 to $50.86 billion dollars in 2021 (Cooper, 2020). According to Statista (2019) report, revenue in the social media advertising is about $92,931 million in 2019, and it is expected to have a 23.7% growth rate by 2023.

One of the key challenges marketers' faces is the lack of ability to determine the effectiveness of sponsored advertising in a social media site to increase all essential elements of brand equity. A lot of popular advertisements exists on social media sites. Unfortunately, many companies have experienced that a large number of views of those popular advertisings on social media are not effective and do not lead to sales (Grant et al., 2015). Therefore, we should not just rely on the view-count of advertisings, we also need for a more in-depth investigation on the factors which make a sponsored advertising to be worthy, effective and the way they influence brand equity. To date, no research has investigated how sponsored advertisements in social media sites contribute toward brand equity and what are the different factors that influence the development of brand equity. Understanding the influence of those contributing factors provides excellent insight to marketers and enables them to evaluate the potential effectiveness of sponsored advertising on social media. Therefore, marketers can consider required issues when they plan for a successful advertisement, and they can avoid any ineffective investment in advertisings on social media sites. This study attempts to investigate how sponsored social media advertisements contribute to build brand equity.

This paper extends the existing academic knowledge of the relationship between sponsored advertising and its influence on brand equity. For this purpose, a framework is developed to examine the impact of sponsored ads on brand equity dimensions. This study will contribute to the academic level by showing the above relationship and identifying which elements of sponsored ads have the most impact on brand equity. This research contributes to an understanding of consumer's perception on sponsored ads on social media and it also helps develop a theoretical foundation on the impact of sponsored ads on brand equity dimensions.

Managers need to understand the value of advertising from their consumer's perspective. Having such knowledge will help managers to realize how social media advertising works and the way sponsored advertising can give leverage to improve their company's brand equity. In terms of marketing implications, successful brand management begins with the knowledge of the target customers. The analysis of this research helps marketers to understand their target customers at a more profound level when it comes to sponsored advertising on social media and how the value of their advertisings is perceived. The result of this study will generate useful information about individuals' perception of the advertisements they see on their Instagram page. This information can be precious for managers to implement in their marketing strategy and advertising plan. This research can help managers to come up with an appropriate plan in using their resources to create a positive advertising value perception. Managers can use the findings of this study in order to differentiate themselves from their competitors in the market. The outcome of this research enables managers to learn about the relationship between their advertising on social media and each construct of brand equity and the way their target customers perceives their advertisement on Instagram.

LITERATURE REVIEW

Numerous studies have demonstrated the impact of the use of social media on brand equity and its dimensions. In a study on the effect of social media usage on brand equity, Khoso et al. (2016) shows that social media has a significant impact on three dimensions of brand equity, which are brand loyalty, brand awareness, and brand association. This research suggests that firms shall note the importance of promoting their brands on social media and utilize it effectively in order to increase the brand awareness of their target audience. In the field of social media marketing, several research have been carried out with the main focus on the impact of owned and earned social media on brand equity. There are also many research studies on the use of social media and its impact on dimensions of brand

equity, especially brand awareness (Pradhan, 2020; Seo et al., 2020; Cooley & Yancy, 2019; Hermanda et al., 2019; Bilgin, 2018; Kang et al., 2018; Sánchez-Casado et al., 2018; Stojanovic et al., 2018; Seo & Park, 2017; Alhaddad, 2015). In a study on the impact of social media advertising awareness, Alhaddad (2015), shows that advertising awareness impact brand awareness and brand image. To evaluate the social media advertising effectiveness, Maria et al. (2019) investigates the impact of social media marketing, word of mouth (WOM), effectiveness of advertising on brand awareness, and the way they influence intention to buy. The result of this study shows a positive and direct relationship between social media marketing and the effectiveness of advertising on brand awareness and intention to buy. In another study on perceived social media relevance and privacy concerns, Jung (2017) confirmed that perceived ad relevance has a significant positive influence on effectiveness of social media ad and negative influence on ad avoidance.

Some brands use social media influencers to advertise their products and services. For that reason, several researchers examined the influence of social media influencers on brand image, self-concept and the purchase intention. For example, Hermanda et al. (2019) showed that social media influencers have a negative influence on the purchase intention and positive impact on the brand image. Cooley and Yancy (2019) show that the information that users receive from people who they know personally are perceived more trustworthy than other sources. This study also reveals that Instagram is the platform where the largest number of influencers provide information to social media users. Thus, influencers are able to increase brand awareness.

There are many research studies that investigated the firm-created social media communication and user-generated social media communication and their influence on brand equity. Bilgin's (2018) study on Facebook users tested the effect of firm-created and user-generated social media communication on brand equity of 60 brands and the result showed user-generated social media communication had positive impact on brand equity and brand, whereas firm-created social media communication did not directly influence brand equity. Another research findings by Pradhan (2020) showed that both firms- and user-created communications have a significant influence on the brand awareness and brand association dimensions of brand equity. However, user-created communication on social media is able to leave a significant influence on brand loyalty and perceived quality. When it comes to the impact of social media on different type of retailers, Colicev et al. (2018) found that owned social media had negative impact on specialty retailers, whereas it helped to improve brand equity in general retailers.

Some researchers have worked on the impact of social media activities on brand equity. For example, in a research study on the relationship between social media activities and brand equity, Zollo et al. (2020) reveals that brand experience is able to mediate the relationship between social media marketing activities and brand equity in luxury fashion brands industry. This study claims that emotional and rational brand experience has a significant influence on brand loyalty, brand awareness, and perceived quality. Stojanovic et al. (2018) conducted a study on the intensity of use of social media, confirming that intensity of use of social media had positive effect on brand awareness, which improved brand equity. Another research by Seo et al. (2020) focuses on social media usage characteristics including personality characteristics, social characteristics, and information characteristics and attempts to learn about their influence on WOM and brand equity. This study reveals that the informational and personality characteristics from social media usage have significant influence on WOM, whitch impacts trust and brand awareness, while WOM also has indirect significant influence on brand image. This research considers brand equity to have two dimensions of awareness and brand image and concludes that WOM and trust improve brand equity. In another study in airline industry, Seo and Park (2017) show that trendiness is the most important component in social media marketing activity, and it has a significant impact on brand image and brand awareness. This study also reveals that brand awareness influence commitment, whereas brand image impact WOM. Many academic research studies have been undertaken on marketing communications on social media, with a primary focus on impact of WOM on brand equity or the influence of user-generated contents on brand equity (Colicev et al, 2018; Grubor et al., 2017; Severi et al., 2014; Murtiasih et al., 2013; Christodoulides et al., 2015). Appendix A summarizes and lists some important brand equity-related articles.

Many studies (Bilgin, 2018; Colicev et al., 2018; Voorveld et al. 2018, Belanche et al., 2017) confirmed the difference in social media influence on consumers' perception depending on social media platforms. Therefore, each social media platform needs to be investigated individually pertaining to their advertising impact and effectiveness (Phillips et al., 2014; Scheweidel et al., 2014; Smith et al., 2012). Thus, it is necessary to select a specific social media platform for the research. This study focuses on sponsored advertising on Instagram. Instagram advertising is described as extremely effective as this application allows companies to use Instagram facilities to target potential customers based on their age group, gender, and location (Cooper, 2015). Additionally, Instagram provides useful options for advertisers to target users who have visited the company's website in the past, users who are

similar to current customers, or users who show the desired interests/behavior on this platform (Cooper, 2015). Facebook is the most popular social media network, which has been the focus of a large number of studies (Moe & Schweidel, 2017). However, Instagram is widespread among young adults age between 18 to 24, and its popularity is increasing among other demographics (Anderson & Smith, 2018). Furthermore, many studies have focused on Facebook, whereas Instagram has not been given the necessary attention. Therefore, this research pays special attention to Instagram as a complete powerhouse and aims to enable managers to gain competitive advantage through Instagram advertising.

Although there has been a plethora of research studies on social media and brand equity, majority of them has primarily focused on the impact of different social media activities on brand equity and its dimensions. A few studies on the company-generated content mainly concentrated on the advertisement on a brand's own social media page (Colicev et al., 2018; Grubor et al., 2017; Seric, 2017; Kavisekera & Abeysekera, 2016). Unfortunately, the impact of sponsored social media advertisements on brand equity has been ignored by the previous researchers. There is a major difference between sponsored advertisements and advertisements on the brand page. Sponsored advertisements appear on social media (such as Instagram and Facebook) newsfeed unexpectedly, and majority of them are not related to the information which users intend to receive and users have minimal control over a sponsored advertisement, while advertisements on the brand page are naturally expected by the visitors as they are fans of the brand. Previous research on social media ads and branding provides limited insight on consumer's perception on sponsored ads on social media. This gap raises a strong demand for further investigation on consumer's perception on sponsored ads and their impact on brand equity.

PURPOSE OF THE STUDY

While a majority of the brand equity-related studies focused on the impact of different social media activities and a few focused on the impact of company- and user-generated contents on only brand's own social media pages, previous research provides limited insights on the impact of company generated contents on non-brand owned social media pages. A comprehensive analysis investigating consumer's perception about a sponsored advertisement and its role on brand equity development has been ignored by previous researchers. The current study attempts to fill this research gap by investigating various mechanisms by which a sponsored advertisement operates. This research study discovers new potentials of sponsored advertisement on social media, and its purpose is to examine whether sponsored advertisement has any impact on brand equity and how does that play the role. It will attempt to explore the drivers that operate on the four dimensions of brand equity and will examine to which extent a sponsored advertisement translates into higher brand equity.

THEORETICAL FOUNDATION AND HYPOTHESES DEVELOPMENT

Aaker's brand equity model

Several theories exist pertaining to identifying brand equity's dimensions. Among those, Aaker (1991) is the most popular brand equity model that is used by many researchers (such as Alkhawaldeh et al., 2016; Tuan, 2014; Zarantonello, 2013; Page & Lepkowska-White, 2002; Pinar et al., 2014). Aaker (1991, 1996) explains brand equity as a set of brand liabilities and assets associated with a brand, its symbol, and name, which increase or decrease the company's product/service value. These liabilities and assets are categorized into four groups, namely perceived brand quality, brand awareness, brand loyalty, and brand associations. Aaker (1991) argues that those four dimensions are essential parts of building a brand in order to enable a company to begin the process of creating a strong brand. This research uses Aaker's (1996) four brand equity dimensions. The reason for selecting Aaker's (1991) model for this study is that this model has been extensively tested for measuring brand equity and it has proved to be a valid model for evaluating brand equity (Jung & Sung, 2008; Buil et al.,2013; Yoon, 2002). Several studies have confirmed that Aaker's (1991) model is one of the most famous and accepted models for customer-based brand equity (Christodoulides et al., 2015; Pike et al., 2010; Kim & Hyun, 2011; Buil et al., 2013).

Brand awareness

Brand awareness is about consumer's familiarity with a brand and the possibility of that brand to be remembered by that individual. Therefore, brand recognition occurs when a person recognizes a prior encounter with a specific brand once sees a sign of the brand (Keller, 1993). Brand awareness can play an essential role in consumers' decision-making process when they face a new situation as the brand can be chosen based on the perception of its popularity and reputation (Lin et al., 2014). Advertising can create awareness as it allows a brand to gain exposure through advertising messages (Aaker, 1991). Brands with more suitable advertising can gain higher levels of awareness and improve their equity (Cobb-Walgren et al., 1995). Social

media allows companies to enjoy many benefits by advertising their brand in order to inform their target customer about their products/services and enables them to compete in the market by having their customers to interact with their brand (Cobb-Walgren et al., 1995; Jothi et al. 2011). The intensity of consumers' usage of social media also can have an impact on brand equity as they are more exposed to social media advertising. Stojanovic et al. (2018) reveal that the intensity of social media use can positively influence brand awareness and it can also impact other dimensions of brand equity. According to Keller (1993), advertising is an important factor influencing two elements of brand equity, which are brand awareness and perceived quality (Keller 1993). Earlier studies (Keller 1993; Yoo et al., 2000) show that advertising has a positive influence on brand awareness as it helps consumers to learn about the brand and its products and services. It also gives an impression of familiarity when consumers encounter the advertised products in the store. Buil et al. (2013) also found that advertising has a significant positive influence on brand awareness.

Brand association

Brand association is about anything in an individual's memory, which is linked and associated with a brand (Aaker, 1991). Brand association is an influential factor that differentiates a brand from others in the consumer's mind (Keller, 1993; Balaji, 2011). In a study on mobile service providers, Abu-Rumman and Alhadid (2014) confirmed the effectiveness of a suitable social media marketing on improving the brand association and building strong brand equity. In another research, Rachna and Khajuria (2017) found that social media communication can have a positive impact on brand awareness and brand associations. The reason is that social media users can see posts related to the brand on social media platforms. This encounter can be through the company's ads, users' friend "Likes", or comments on a brand's post. Therefore, social media users would gain information about the brand, and brand association of the company will be improved when their customers continuously learn about the brand on social media.

Perceived quality

Perceived quality refers to consumer's perception of the overall quality of a product or service with regard to its intended purpose or its superiority in comparison to its alternatives (Zeithaml, 1988). Aaker (1996) suggests that perceived quality is a key factor in measuring brand equity. Several other studies also confirm Aaker's claim about perceived quality as a key factor in determining brand equity

(Buil et al., 2013; Pinar et al., 2014; Kim & Hyun, 2011; Yoo et al., 2000). Rice and Bennett (1998) reveal that advertising can increase perceived brand quality. A higher volume of advertising, regardless of their contents, can be perceived as the firm's confidence in the quality of the product.

Brand loyalty

Brand loyalty is customer's "positive feelings towards a brand and an intense dedication to repeatedly purchasing the same product/service now and in the future, regardless of competitors' actions or changes in the environment" (Lazarevic, 2012; Yaghoubi et al., 2017). A long-term relationship commitment held by customers with a brand shows their loyalty for that brand (Reichheld, 1996). Loyal customers make repeat purchases, say positive words and are willing to pay higher prices for buying products/services of their preferred brand (Zeithaml et al., 1996). Thus, organizations constantly strive toward retaining existing customers by making efforts to improve brand loyalty, which in turn ensures profitability and sustainability of firms (Morrison & Crane, 2007). Earlier studies confirmed the direct relationship between brand loyalty and brand equity (Pinar et al., 2014; Buil et al., 2013). Aaker (1991) considers brand loyalty as a core concept of marketing and recommends special efforts to build strong brand equity. Having loyal customers is a competitive advantage, which makes it harder for other brands to succeed in the market (Bilgin, 2018). Thus, brand loyalty is extremely important for marketers as it enables a brand to reduce its marketing cost while increasing its sales.

Influence of attitude toward sponsored ad

For many years, attitude has been considered as one of the core topics of research in behavioral science. Fishbein and Ajzen (1975) defined attitude as "a person's favorable or unfavorable evaluation of an object". In other words, attitude refers to an individual's degree of evaluative affect (positive or negative feelings) toward the target object or behavior (Fishbein & Ajzen, 1975). Social psychologists agree that attitudes are general, evaluative, and enduring predispositions about something, whether it is a person, object, or issue (Fishbein & Ajzen,1975; Oskamp, 1977). According to Fishbien and Ajzen (1975), attitude can be classified into two main types: attitude toward the objects and attitude toward the behavior. This study employs attitude toward a digital object, the sponsored advertisement on social media page. This study defines attitude toward sponsored ad as the degree of an individual's positive or negative feelings about sponsored advertisements in Instagram. When people view sponsored

advertisements on social media pages, they may hold positive or negative feelings toward those advertisements. Depending on that feeling, people develop their attitude toward those sponsored advertisements. This study investigates consumer's feelings toward sponsored advertisements and how those feelings influence different dimensions of brand equity. Attitude has long been identified as an important cause of consumer's intension to use or purchase a product in various domains, including online shopping, e-commerce, social networking, video games, mobile marketing, online services, to name a few (Yousafzai et al., 2007; Pikkarainen et al., 2004; June, Chun-Seng, 2003; Taylor & Todd, 1995; Sheppard et al., 1988). With that notion, this study argues that positive attitude toward sponsored advertisements has favorable influence on the four dimensions of brand equity. When people have positive feelings about an advertisement of a brand, people will become more familiar with that brand and people are also expected to recognize that brand later, which will lead to a positive brand association. Additionally, that positive feelings will lead to their perception of high quality of the brand, which will most likely motivate them to purchase the product and subsequently turn them to a loyal customer. Thus, this study proposes the following hypotheses:

H1: A positive attitude toward sponsored ad leads to a high brand awareness.

H2: A positive attitude toward sponsored ad leads to a high brand association.

H3: A positive attitude toward sponsored ad leads to a high perceived quality of the brand.

H4: A positive attitude toward sponsored ad leads to a greater brand loyalty.

Influence of perceived value of sponsored ad

Perceived value is defined as ''consumer's overall assessment of the utility of a product or service based on perceptions of what is received and what is given'' (Zeithaml, 1988). Perceived value plays a significant role in determining consumer's consumption decision-making process (Eggert & Ulaga, 2002; Reid, Pullins, & Plank, 2002). Prior research has identified perceived value as a major determinant of customer loyalty in various sectors (Bolton & Drew, 1991; Sirdeshmukh et al., 2002). It also has been identified as an important antecedent to satisfaction and behavioral intentions (Cronin et al., 2000; Dodds, Monroe, & Grewal, 1991; McDougall & Levesque, 2000). Some studies reveal that perceived value have positive effect on satisfaction (Park, Robertson, & Wu, 2004; Chaudhuri & Holbrook, 2001) and Tsiros et al. (2004) found that raising consumer's perceived value would positively affect customer satisfaction. Chang and Wildt (1994) report that customer's perceived value is a major contributor to purchase intention. Other researchers also observed that higher

perceived value would increase higher possibility of consumer's purchase intention (Molinari, Abratt, & Dion, 2008; Olsen, 2002). Perceived value has two elements, hedonic value and utilitarian value (Babin, Darden, & Griffin, 1994; Babin & Attaway, 2000). Hedonic value refers to experiential orientation and emotional reaction on product or service usage, while utilitarian values come from functional benefits of the product and service. This study refers to consumer's hedonic aspect of perceived value of the sponsored advertisement where they evaluate their experiential orientation and emotional reaction on a sponsored advertisement on Instagram page. Marketers can use advertising value as a market-oriented index in order to have a perspective on their success or failure in meeting consumer expectations about the service and product (Ducoffe, 1995). Advertising value shows how satisfied a consumer is with the communicated service/product (Haghirian et al. 2008). As prior research has already established that perceived value influences customer satisfaction, purchase intention, and customer loyalty, this study contends that customer's perceive value of a sponsored advertisement directly impacts brand equity and its four dimensions. This study argues that when customers have a positive perceived value on a sponsored ad, they will be willing to know about the brand and be familiar with its products and services, which will lead to strong brand awareness. It will also help them recognize the brand and lead to positive brand association. Furthermore, customer's high perceived value will help them believe in the high-quality product/service of the brand, which will subsequently inspire them to buy their products repeatedly. In light of the preceding discussion and findings, the following hypotheses are proposed.

H5: A high perceived value of sponsored ad leads to a high brand awareness.

H6: A high perceived value of sponsored ad leads to a high brand association.

H7: A high perceived value of sponsored ad leads to a high perceived quality of the brand.

H8: A high perceived value of sponsored ad leads to a greater brand loyalty.

Influence of trust on sponsored ad

Trust has been conceptualized by numerous researchers in many different ways from various perspectives. For example, Moorman et al. (1992) defined trust in the form of customers' willingness to rely on providers' capability and dependability. Coulter and Coulter (2002) defined trust as customers' perception of providers' confidentiality, honesty, integrity, and ethical standards. Trust has also been conceptualized as existing when one party has confidence in a part's reliability and integrity (Morgan & Hunt, 1994). Trust has received considerable importance from the researchers and has been

utilized in numerous research studies. Previous research has proven that trust can help to reduce perceived risk and uncertainty (Malaquis & Hwang, 2016; Wang et al., 2015). Thus, consumer's trust in a company's sponsored advertisement can lessen the confusion and ambiguity about the contents in that ad and make them feel comfortable while interacting with the messages. Many researchers have proven that trust plays a vital role in improving customer satisfaction, customer engagement, brand awareness, and brand loyalty. For example, Gana and Koce (2016) found that trust has a significant impact on customer loyalty and satisfaction. Karjaluoto et al. (2005) observed that a company's presence in advertisements in social media is an essential source affecting consumers' trust and willingness to engage in mobile marketing. Gremler and Brown (1996) found trust as a conceptual antecedent of customer loyalty. Lin and Wang (2006) also revealed that trust significantly influences user satisfaction and loyalty. Rios and Riquelme (2008) confirm that achieving a positive brand association is not possible without creating trust in the consumer's mind towards brands that are available online. Thus, trust remained the point of concern for numerous authors because of its strong influence on various areas related to customer satisfaction and brand equity. This study conceptualizes that trust on sponsored advertisement exists when viewers of the ad believe that the ad is authentic, message of the ad is reliable, the source of the ad is truthful. This study argues that trust in sponsored ad translates to trust in brand, which leads to all four dimensions of brand equity. In implies that when people trust in an advertisement of a brand, they believe that the contents and the source of the ad are authentic. This belief will help them to be familiar with the brand and recognize the brand among other competitors. Additionally, people's trust on the advertisement will convince them to believe that the brand produces good quality products, which will help them to become loyal customers of the brand. Many previous studies have proved that trust leads to customer satisfaction and brand loyalty. Thus, this study proposes the following hypotheses:

H9: Trust in sponsored ad leads to a high brand awareness.
H10: Trust in sponsored ad leads to a high brand association.
H11: Trust in sponsored ad leads to a high perceived quality of the brand.
H12: Trust in sponsored ad leads to a greater brand loyalty.

METHODOLOGY

Research design

This research study adopts a multi-phase approach. In the first phase (pilot study), the questionnaire was distributed among 25 participants in order to identify any errors, flaws, ambiguities, discrepancies, or confusions in the questionnaire. After modifying the questionnaire based on the feedback from pilot study, the second phase (study 1) was launched where the survey with updated questionnaires were distributed among the participants. The population of this study was defined as any adult person who are active user of Instagram. A research model (Figure 1) was developed to examine the influence of attitude, trust, and perceived value on the four dimensions of brand equity.

Measures

A self-administered web-based online survey questionnaire was developed in Qualtrics for this study to address the twelve hypotheses. All items in the questionnaire have been adapted from the existing scales that have been tested by previous researchers. A few items in the questionnaire were slightly customized from the original scale to fit in this study. All questions used in this survey were close-ended because of their uniformity in responses and ease of processing for data analysis (Babbie, 2002). A 5-point Likert scale (where 1=strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree) was used to measure all items except demographic questions. On the cover page of the questionnaire, participants were requested to mention a commercial they have viewed on Instagram page in last two weeks. All sponsored ad-related questions referred to that specific social media commercial. All constructs with references are presented in Appendix B.

Data collection

Data of this research study were collected through the crowdsourcing via Amazon Mechanical Turk (MTurk). Questionnaires of study 1 and 2 used the same survey questions except the reference of social media commercial. Participants of study 1 were instructed to mention a commercial for any tangible product (e.g., apparel, shoes, electronic devices, household appliances, furniture, groceries, etc.), while participants of study 2 were requested to specify a social media commercial of an intangible product, such as restaurant, entertainment, carnival, airline, healthcare service, etc. In study 1, a total of 296 surveys were collected and after careful screening, 274 were used for statistical analysis. Four hundred surveys were collected in study 2. In the collected data, some non-engaged errors,

missing and incomplete data, and outlier cases were detected, which were excluded from this study. After screening, 384 valid surveys were selected for the final analysis.

Two different types of sponsored ads in social media were used in two studies (i.e., ad for product in study 1 and ad for service in study 2) for generalizability.
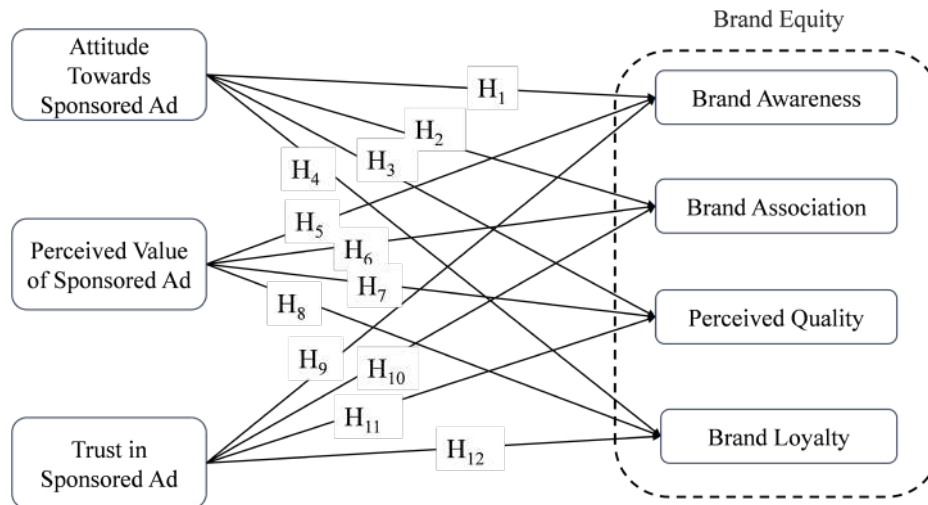
Figure 1. Research model

DATA ANALYSIS AND RESULTS

Data analysis of this research study has been completed in five phases. Data screening was done in the first phase where missing data, outlier, normality, linearity, and multicollinearity were tested. Reliability and validity were tested in the second phase. In the third phase, Exploratory Factor Analysis (EFA) was done to determine the number of factors to achieve the optimum model. Demographic analysis was performed in the fourth phase. In the fifth phase, hypotheses were tested through multiple regression analysis.

Before proceeding with the data analysis, all variables were screened for possible code and statistical assumption violations, as well as for missing values and outliers using SPSS frequencies, explore, plot, and regression procedures. In order to check the normality, homoscedasticity, and linearity assumptions, histogram, normal probability plot of regression, and scatterplot were developed. Histogram and normal probability plot of regression graphs show a normal and linear distribution. The scatterplot graph also shows the homoscedasticity assumption is valid. Skewness and Kurtosis were measured to confirm the normality of the data. Skewness values ± 2 and Kurtosis values less than 7 are considered approximate multivariate normality (Curran, West & Finch, 1996). Skewness values ranged from -.52 to .56 in study 1 and from -.46 to .39 in study 2. Kurtosis values ranged from -.98 to -.41 in study 1 and from -.89 to -.53 in study 2 (Table 1). Thus, both study 1 and 2 confirmed the normality distribution of data. A tolerance value less than .10 or a variance inflation factor (VIF) value above indicates high collinearity, demonstrate absence of

multicollinearity (Hair et al., 1998). Table 2 displays the tolerance and VIF values of each independent variable. The tolerance values ranged from .69 (VIF = 1.93) to .81 (VIF = 1.22) for study 1 and from .72 (VIF = 2.36) to .87 (VIF = 1.31) for study 2, demonstrating the absence of multicollinearity in both studies.

To test the reliability, the majority of studies utilized a standard coefficient of internal consistency, which is known as Cronbach's alpha (Boudreau, Gefen, & Straub, 2001). Thus, Cronbach's alpha was employed to test the internal consistency between multiple measurements of this study. A minimum Cronbach's alpha of 0.7 is considered as an acceptable reliability (Wu, Chang, & Guo, 2008; Thompson, Compeau, & Higgings, 2006). The Cronbach's alpha ranged from .76 to .94 in the first study and .78 to .91 in the second study (Table 2). For both studies, these values indicate acceptable reliability.

Among different types of validity, construct validity is the most common type of validity, which measures whether a study represents the theoretical construct properly (Smith & DeCoster, 2000). This construct validity could be examined by testing convergent validity and discriminant validity (Campbell & Fiske, 1959). This study examined both of those two validities. Convergent validity can be examined by measuring the AVE by observing the factor loading of each construct. Convergent validity can be determined by maintaining the minimum AVE value of .5 (Fornell & Larcker, 1981). Convergent validity of all seven constructs was achieved as the AVE values (ranging from .57 to .65 in study 1 and from .58 to .69 in study 2) exceeded the minimum value of .5 (Table 2). Discriminant validity is evident when each construct correlates weakly with all other constructs, except the one with which it is

theoretically associated (Gefen & Straub, 2005). An EFA was performed in both studies to obtain a factor structure with the grouping of variables based on strong correlation. A Principal Component Analysis with Promax rotation was performed to test the correlation between factors. As the Table 4 shows, all correlations are below the limit of 0.7. This indicates that each construct in the correlates weakly with all other constructs. Thus, the discriminant validity was achieved in both studies.

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were performed to confirm the necessary distribution of values for factor analysis. A minimum KMO value of .6 needs to be achieved, as suggested by George and Mallery (2007). Bartlett's test of Sphericity yielded a KMO value of .86 for study 1 and .91 for study 2, demonstrate that the data were appropriate for principal component analysis for both studies. A six-factor model representing 78.58% of the total variance was obtained through the Kaiser-Guttman test, with retention criteria of eigenvalues greater than 1.0. Additionally, Cattell's Scree test was executed to detect the optimal factors to be extracted. The factor loading data are presented in Appendix B.

In order to test all hypotheses in both studies, multiple regression tests were performed, which evaluated the impact of each independent variable on the four dimensions of brand equity. Attitude, perceived value and trust were the three independent variables, while the four dimensions of brand equity, namely brand awareness, brand association, perceived quality, and brand loyalty were the four dependent variables used in this study.

Study 1

There were 141 (51.46%) females and 133 (48.54%) males in this first study. The largest group (38.32%) of participants was between 21 and 30 years old. A significant portion (40.88%) of the participants earns less than $40,00 a year and the largest group (44.16%) of participants is Caucasian, followed by Asian (20.44%), and the largest (43.43%) group of participants has a bachelor's degree.

The standard linear regression analysis demonstrates that attitude toward sponsored ad does not have significant influence on brand awareness ($\beta = .21$, t = -.62, p > .10). It indicates that a positive attitude toward sponsored ad does not lead to high brand awareness, rejecting hypothesis H1. The impact of attitude was significant on brand association ($\beta = .37$, t = 9.21, p ≤ .05) thus H2 was supported. This demonstrates that a positive attitude toward sponsored ad leads to a high brand association. The impact of attitude toward sponsored ad on both perceived quality ($\beta = .32$, t = 6.36, p ≤ .01) and brand loyalty ($\beta = .63$, t = 13.84, p ≤ .01) were significant,

supporting hypotheses H3 and H4. This signifies that with a positive attitude toward sponsored ad leads to a high perceived quality and brand loyalty of the brand.

From the regression analysis, it is evident that perceived value of sponsored ad on Instagram is useful for predicting the brand awareness ($\beta = .55$, t = 10.87, p ≤ .05). Thus, hypothesis H5 is accepted, and an impressive sponsored ad on Instagram can increase Instagram users' brand awareness. When an ad is deemed valuable to Instagram users, it helps the brand to be recognized and remembered by the users. Thus, a high perceived value of sponsored ad leads to a high brand awareness. The impact of perceived value of sponsored ad on brand association ($\beta = .45$, t = 8.22, p ≤ .01), perceived quality ($\beta = .60$, t = 12.19, p ≤ .05) and brand loyalty ($\beta = .65$, t = 13.94, p ≤ .01) were significant, supporting hypotheses H6, H7, and H8. This implies that the perceived value of sponsored ad that users see on their Instagram page can impact their perspective toward the attributes of that brand. It indicates that an impressive sponsored ad can impact social media users to recognize brand features in the future. The perceived value of sponsored ads on social media is a good predictor of the perceived brand quality. When an ad is perceived to be valuable, it can positively influence ad viewers' perception about the quality of the brand. This also shows that Instagram users' perception of the value of the ad can impact their loyalty toward the brand to a greater extent in comparison to other aspects of brand equity, such as brand awareness, associations, and perceived quality. We can conclude that there is a significant relationship between ad value and brand loyalty. A good perception about the value of a sponsored ad helps companies to find more loyal customers. Thus, a high perceived value of sponsored ad leads to a high brand association, perceived quality and brand loyalty.

Trust has a significant impact on the brand awareness ($\beta = .69$, t = 14.88, p ≤ .05), thus H9 is supported. It shows that consumer's trust in the sponsored ad on Instagram is a good predictor of brand awareness. Hence, trust in sponsored ad leads to a high brand awareness. It is interesting to observe that trust does not work the same way on brand association as it does on brand awareness. Consumer's trust does not have any significant impact on brand association ($\beta = .41$, t = -7.33, p > .10), rejecting H10. Therefore, trust in sponsored ad does not lead to a high brand association. Like brand association, perceived quality ($\beta = .59$, t = 11.56, p ≤ .05) and brand loyalty ($\beta = .62$, t = 13.13, p ≤ .01) were significantly influenced by consumer's trust on sponsored ad. Thus, hypotheses H11 and H12 are supported. When consumer trust a sponsored ad on Instagram, it can positively influence ad viewers' perception about the quality of the brand and it also helps companies to find more loyal customers.

This signifies that trust in sponsored ad leads to a high perceived quality as well as loyalty of the brand. In addition to the above multiple regression analysis, a test of robustness was performed by including the five control variables (i.e., gender, age, income, ethnicity, and education) as the covariates to verify whether the result differs because of those control variables. With these covariates, the overall impacts of these three independent variables on the four dimensions of brand equity did not change. Thus, the demographic factors could not affect the influence of attitude, trust, and perceived value on the four dimensions of brand equity.

Study 2

Male (210) participants were more than female (174) counterpart in the second study. Participants aged between 31 and 40 years formed the largest group, representing 40.63%, followed by the group of 41-50 years old (19.53%). The income of the largest segment (27.34%) was between $40,001 and $60,000. Like the first study, Caucasians (34.11%) were the leading group, followed by Asian (23.18%) participants, and the largest (50.26%) group of participants has a bachelor's degree. Appendix C summarizes the demographic distribution of survey participants of both studies.

Unlike the first study, the attitude toward sponsored ad has significant influence on brand awareness (β = .36, t = 3.16, p ≤ .01) in the second study, which implies that a positive attitude toward sponsored ad leads to high brand awareness, supporting hypothesis H1. Another interesting observation in this second study was the impact of attitude on brand association (β = .19, t = -2.65, p > .05) and perceived quality (β = .48, t = -5.59, p > .10). Both of them were insignificant in this second study. Thus, hypotheses H2 and H3 were rejected. The impact of attitude toward sponsored ad on brand loyalty was significant (β = .68, t = 14.84, p ≤ .05) in the second study, as it was found the first study. This implies that a positive attitude toward sponsored ad leads to a greater brand loyalty. Thus, hypothesis H4 was supported in this second study.

Compared the first study, the impact size of perceived value of sponsored ad was higher on all the four dimensions of brand equity in the second study. The impact of perceived value on brand awareness (β = .61, t = 14.11, p ≤ .01), brand association (β = .71, t = 15.36, p ≤ .05), perceived quality (β = .53, t = 12.58, p ≤ .05), and brand loyalty (β = .78, t = 16.62, p ≤ .05) were significant. Hence, hypotheses H5, H6, H7, and H8 were supported. This demonstrates that a high perceived value of sponsored ad on Instagram page leads to a high brand awareness, high brand association, high perceived quality of the brand, and high brand loyalty.

The impact of trust on all the four dimensions of brand equity were significant in the second study.

Thus, hypotheses H9, H10, H11, and H12 were supported. Among those four dimensions, impact on brand loyalty (β = .54, t = 13.95, p ≤ .01) had the highest and brand association (β = .38, t = 7.48, p ≤ .05) had the lowest. Trust had moderate impact on brand awareness (β = .43, t = 8.54, p ≤ .05) and perceived quality (β = .54, t = 13.95, p ≤ .01). This signifies that if consumer trusts a sponsored ad on Instagram, it contributes to a high brand equity through its four dimensions.

In summary, four hypotheses (H1, H2, H3 and H10) are partially supported because hypotheses H1 and H10 failed in study 1 and hypotheses H2 and H3 failed in study 2. No hypothesis has failed in both studies thus no hypothesis has been fully rejected. Out of the three independent variables, perceived variable is the only variable where all hypotheses have been fully supported. This indicates that perceived variable is the most influential factor in building brand equity. Attitude was least influential factor that contributed to brand equity as three out of four hypotheses (H1, H2, and H3) related to attitude were partially supported. Trust was found to be a considerably influential in building brand equity as only one hypothesis (H10) related to trust was partially supported and remaining three (H9, H11, and H12) were full supported. Figure 2 shows the updated research model with the effects of each independent variables on the four dimensions of brand equity.
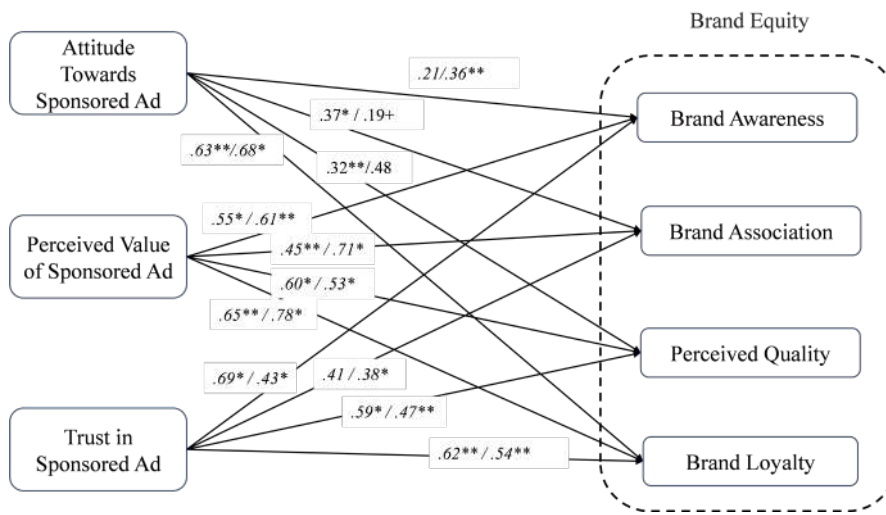
Note: + p ≤ .10, * p ≤ .05, ** p ≤ .01
Left number represents the effect of study 1 and right number represents the effect of study 1.

Figure 2. Research model with effects

Construct	Mean		Standard Deviation		Skewness		Kurtosis	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
BAWR	2.77	2.36	.56	.88	-.52	.38	-.97	-.85
BASS	2.02	2.48	.81	.76	-.42	-.28	-.78	-.69
QUAL	2.65	3.05	.60	.58	-.17	-.41	-.41	-.53
BLTY	3.23	3.11	.71	.63	.44	.39	-.98	-.72
ATTD	2.31	2.14	.66	.81	-.35	.28	-.73	-.61
PVAL	3.68	3.35	.48	.59	-.23	-.46	-.53	-.79
TRST	3.41	2.96	.69	.49	.56	.39	-.65	-.89

BAWR = Brand Awareness, BASS = Brand Association, QUAL = Perceived Quality, BLTY = Brand Loyalty, ATTD = Attitude, PVAL = Perceived value, TRST = Trust

Table 1. Descriptive Statistics

Con-struct	Cronbach's Alpha		AVE		CR		Tolerance		VIF	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
BAWR	.92	.91	.65	.61	.83	.78	.79	.85	1.61	1.65
BASS	.76	.87	.61	.62	.79	.75	.72	.78	1.87	1.96
QUAL	.92	.90	.59	.58	.81	.83	.69	.76	1.93	2.14
BLTY	.92	.91	.58	.59	.81	.77	.81	.86	1.22	1.43
ATTD	.89	.78	.61	.69	.79	.74	.74	.72	1.83	2.36
PVAL	.94	.91	.57	.58	.75	.78	.76	.87	1.78	1.31
TRST	.93	.90	.62	.59	.77	.80	.80	.81	1.56	1.79

Table 2. Reliability coefficients and collinearity statistics

Path	β		t		P	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
ATT→BAWR	.21	.36	-.62	3.16	.16	.01
ATTD→BASS	.37	.19	9.21	-2.65	.02	.08
ATTD→QUAL	.32	.48	6.36	-5.59	.01	.19
ATTD→BLTY	.63	.68	13.84	14.84	.00	.04
PVAL→BAWR	.55	.61	10.87	14.11	.03	.01
PVAL→BASS	.45	.71	8.22	15.36	.00	.03
PVAL→QUAL	.60	.53	12.19	12.58	.04	.02
PVAL→BLTY	.65	.78	13.94	16.62	.00	.04
TRST→BAWR	.69	.43	14.88	8.54	.02	.05
TRST→BASS	.41	.38	-7.33	7.48	.31	.03
TRST→QUAL	.59	.47	11.56	9.65	.02	.00
TRST→BLTY	.62	.54	13.13	13.95	.00	.01

Table 3. Coefficients

Construct	BAWR	BASS	QUAL	BLTY	ATTD	PVAL	TRST
Brand Awareness (BAWR)	1.00 1.00						
Brand Association (BASS)	.48 .51	1.00 1.00					
Perceived Quality (QUAL)	.35 .41	.53 .48	1.00 1.00				
Brand Loyalty (BLTY)	.46 .39	.38 .45	.51 .45	1.00 1.00			
Attitude (ATTD)	.35 .41	.28 .31	.41 .28	.19 .26	1.00 1.00		
Perceived Value (PVAL)	.34 .44	.41 .39	.39 .20	.46 .40	.21 .32	1.00 1.00	
Trust (TRST)	.55 .46	.23 .32	.50 .43	.39 .36	.36 .40	.43 .39	1.00 1.00

Table 4. Correlation matrix

No.	Hypothesis	Result of Study 1	Result of Study 2	Summary Result
H1	A positive attitude toward sponsored ad leads to a high brand awareness.	X	√	Partially Supported
H2	A positive attitude toward sponsored ad leads to a high brand association.	√	X	Partially Supported
H3	A positive attitude toward sponsored ad leads to a high perceived quality of the brand.	√	X	Partially Supported
H4	A positive attitude toward sponsored ad leads to a greater brand loyalty.	√	√	Fully Supported
H5	A high perceived value of sponsored ad leads to a high brand awareness.	√	√	Fully Supported
H6	A high perceived value of sponsored ad leads to a high brand association.	√	√	Fully Supported
H7	A high perceived value of sponsored ad leads to a high perceived quality of the brand.	√	√	Fully Supported
H8	A high perceived value of sponsored ad leads to a greater brand loyalty.	√	√	Fully Supported
H9	Trust in sponsored ad leads to a high brand awareness.	√	√	Fully Supported
H10	Trust in sponsored ad leads to a high brand association.	X	√	Partially Supported
H11	Trust in sponsored ad leads to a high perceived quality of the brand.	√	√	Fully Supported
H12	Trust in sponsored ad leads to a greater brand loyalty.	√	√	Fully Supported

Table 5. Summary of hypothesis testing

DISCUSSION AND IMPLICATIONS

This study attempted to explore the drivers that operate on the four dimensions of brand equity and also examined to which extent a sponsored advertisement translated into higher brand equity. Three mechanisms by which a sponsored advertisement operates were examined. The result of this study demonstrates that consumer's attitude, trust, and perceived value of sponsored ad can impact brand equity in different magnitudes. It reveals that users' perception of a valuable ad could have a positive and significant effect on all of the mentioned dimensions of brand equity. Among all four brand equity dimensions, brand loyalty is influenced the most by the perceived ad value. It means a valuable ad can create and enhance Instagram users' loyalty toward the advertiser's brand. The effect size of ad value on brand association and brand awareness are also large and not far from brand loyalty's effect size in study 2. Therefore, effective advertising can enhance users' awareness about that brand. So, it helps customers to recognize and recall the brand. The effect size of perceived value on the perceived quality of the brand and brand associations are also considerable. This result shows how powerful a sponsored advertisement on Instagram can be as it helps to enhance brand value by improving awareness about the brand and its attributes, giving a good impression about its quality, and creating brand loyalty. The result from this research is against Buil et al. (2013), Rachna and Kharjuri (2017), Buil et al. (2013) findings, which claimed that advertising does not have any significant influence on customers' thoughts on the quality of the advertisers' products. In both studies, trust in sponsored ads was able impact all four dimensions of brand equity, except for brand awareness in study 1. This result was not surprising; numerous studies have reported similar findings in different domains (Morgan & Hunt, 1994; Ranaweera & Prabhu, 2003; Kassim & Abdullah, 2010; Castaldo et al., 2015; Devece et al., 2015; Thaichon & Quach, 2015). The impact size in both studies were between moderate and high. It implies that brand needs to earn consumer's trust in their social media ads to build a high brand equity because this trust will help them enhance brand awareness, high brand association, perceived quality of the brand, and brand loyalty.

Marketers can develop a positive perception toward their brand through developing a positive attitude toward sponsored ads. Similar finding has been reported in numerous consumer studies in a variety of research contexts (Taylor & Todd, 1995; Sheppard et al., 1988; Shim et al., 2001; Pavlou, 2002; Shin, 2007; Yousafzai et al., 2007). The finding of this study indicates that when customers start believing that reviewing sponsored ads in social media is a good and wise idea, as well as a pleasant experience, customers will be interested to know more about the brand, and the likelihood that they recall the brand and its attributes will be enhanced.

Theoretical Implications

This study expands the current body of knowledge in branding in multiple ways. It was the first attempt to apply this Aaker's brand equity model in sponsored social media ads with attitude, trust and perceived value. The study empowered and expanded the scope of Aaker's (1991) brand equity model by applying it in a new domain of sponsored ads on Instagram and by confirming the significant impact of attitude, trust, and perceived value on the four dimensions of brand equity. It developed a new theoretical framework that includes those three new constructs. This study demonstrates that that the consumer's trust on social media ad requires significant attention to build brand equity. The constructed framework indicates how each element of brand equity can be influenced directly and indirectly by consumer's attitude toward social media ads, trust in it, its perceived value, and its underlying factors. The result of this study approved that the proposed framework is acceptable and able to have theoretical contributions and can be used as a theoretical foundation to learn about the impact of the attitude, trust, and perceived value of sponsored ads on brand equity dimensions.

Managerial Implications

This study provides a comprehensive insight for managers by bringing three important factors that impact brand equity. Managers can understand what aspects of their social media ads need special consideration when they aim to improve their brand equity or each of its constructing elements. Managers can learn from this study about the essential factors in a sponsored ad and how the provided information in a trustworthy ad can give a positive impression to Instagram users when they find it valuable. This study not only reveals how to give a good impression in social media advertising, but also enables managers to realize how they can enjoy the benefit from a sponsored ad on social media through improving the four dimensions of their brand equity. Thus, managers will be able to identify what element of their brand equity was influenced by their Instagram advertisement the most. Additionally, managers can learn about the influence of characteristics of their target audience when they plan for advertising on social media.

Managers can use social media ads as a significant power to increase the value of their brand in their current or potential customers' minds. The result of this study provides valuable insight for managers to realize how to unitize their resources and which part of ad requires more investments to get a better

result. This study reveals that one of the prerequisites of building strong brand equity is having consumer's trust on sponsored ads. Thus, managers should focus on developing trustworthy sponsored ads on social media that contains consistent and reliable messages. Additionally, this study proves that attitude contributes to brand equity development, thus managers need to put their efforts to develop customer's positive attitude toward sponsored ads in social media. Being truthful, transparent, and honest in their promotional campaigns and communications would help them achieve this goal.

LIMITATIONS AND OPPORTUNITIES FOR FUTURE STUDIES

The limitations of this study opened the door of opportunities for future research. The first limitation of this study was related to the questionnaire type used in this survey. Data in both studies were collected through online survey; no data was collected through paper-based questionnaires. Some participants may not feel comfortable with web-based survey. This study missed those participants. Future researcher may include an option of paper-based questionnaire. Data for this study were collected through crowdsourcing where researchers did not have any knowledge about the participants, which may be considered as a limitation. This study employed two types of sponsored ads, tangible products and non-tangible services. Future researchers could also compare the effects of ads on brand equity in multiple industries to investigate whether the effects differ among different industries. The participants of this study reside in the USA; this study did not perform any comparative analysis among multiple groups or cultures; therefore, the cross-cultural studies to compare the behavior within multiple cultures could be another opportunity for future researchers. This study examined only three independent variables, attitude, perceived value, and trust that influence brand equity. Future researchers may explore more variables and investigate their impacts on brand equity. No attempt was made to investigate the mediating effects of gender, age, income, ethnicity, education, or any other variables. This is an opportunity for future researchers to investigate the mediating effect on brand equity. Lastly, the focus of this study is on brand equity from the customer perspective, and it has not considered the financial aspect of it. Therefore, testing financial metrics can be useful in order to investigate the impact of social media ads on brand equity in terms of financial values. Despite all these limitations, the research methodology, the data collection method, and all fundamental principles of research have been strictly maintained in this study.

CONCLUSION

This research demonstrates that a sponsored ad in social media influence the four dimensions of brand equity positively when customers have positive attitude toward that ad, trust in the contents of the ad and find that ad valuable. An impressive sponsored ad helps Instagram users to recognize and remember the brand in the future and also keep getting back to the brand and recommend it to others. This study also shows that a well-planned and efficient advertising on Instagram can improve Instagram users' impression about the quality of service and products which the brand promotes. It implies that when customers possess positive attitude toward the ad, trust the message of the ad, and believe that the contents of the ad are valuable, they will have strong confidence in the advertised brand and its products. This study supports the significant role of advertising in advancing the value of brand equity in the mind of social media users. The impact of advertising has been confirmed in both marketing practice and academic research (Lee, 2013; Ailawadi et al., 2003). Therefore, marketing managers can use Instagram ads to help their companies to succeed in improving their brand equity and also enhancing brand awareness, brand associations, perceived quality, and brand loyalty. When an Instagram user finds an ad worthy, all aspects of the brand equity of the advertiser will be significantly influenced. Therefore, Instagram users get to know more about the brand through the advertisement, and the likelihood that they recall the brand and its attributes will be improved. Furthermore, there will be a positive perception of the products and services that the brand offers, and there will be more chances that they get back to the brand and recommend it to their friends in the future. This study suggests that marketing managers can enjoy many benefits by planning and designing an effective sponsored ad while they are aiming to improve their brand loyalty through social media because this study demonstrates that brand loyalty is influenced the most if the ad can generate a positive impression to Instagram users.

Brand equity of a company is an indicator of its success and since it is related to the cognitive part of customers, it is necessary to have a comprehensive framework which shows that how adopting an appropriate ad on social media can enable brands to build favorable perception of their customers to increase the value of their brand. This study demonstrates that marketers can achieve strong brand equity by developing an appropriate social media sponsored ad in which consumers trust, have favorable attitude, and find values.

Authors	Topic	Key Concepts Examined	Findings	Methodology
Qorbani, Z., Koosha, H., & Bagheri, M. (2021)	Relationship between brand equity, customer lifetime value and customer equity	Brand equity, customer equity, customer lifetime value	Brand knowledge and brand differentiation positively relate to customer acquisition	Survey, Linear & logistic regression, N=30
Al-Zyoud, M (2020)	Role of mobile applications in developing brand equity	Brand equity, brand awareness, perceived quality, brand association, brand loyalty	Mobile applications positively influence brand equity and it develops a strong branding platform for marketers.	Survey (N=520), Multiple regression
Rodrigues, L. & Oliveira M. (2020)	Influence of materialism and brand equity on impulsive buying behavior associated with the use of a credit card.	Materialism, brand equity, impulsive buying	Brand equity does not impact impulsive buying behavior, but the credit card positively impacts impulsive buying behavior.	Survey, SEM, N=384
Huerta-Álvareza et al (2020)	How and to what extent social media communication, has an impact on destination brand equity and destination brand engagement	Brand equity, brand engagement, loyalty, destination awareness, destination image, perceived quality, social media communication	Controlled and uncontrolled social media communications have impact on destination brand equity and destination brand engagement.	Survey, SEM, N=300
Luffarelli, J., Mukesh, M. & Mahmood, A. (2019)	Impact of logos on brand evaluation, intentions, and brand performance	Logo descriptiveness, replicates, ease of processing, impressions of authority, brand evaluations, brand performance	More (vs. less) descriptive logos can positively influence brand evaluations, purchase intentions, and brand performance.	Survey, Multiple regression, N=597
Luffarelli, J., Stamatogiannakis, A., & Yang, H. (2019)	Effect of brand logos on consumer's evaluation of brand	Brand personality, logo design, consumer's brand evaluations	A visual property in all brand logos—the degree of (a) symmetry—can interact with brand personality to affect brand equity.	Experimental study, Multiple regression, N=306
Augusto, M. & Torres, P. (2018)	Effects of brand attitude and eWOM on consumer's willingness to pay premium prices	Brand attitude, eWOM, Brand identification, brand equity, willingness to pay premium price	Brand attitude and eWOM may not be enough to motivate willingness to pay premium price.	Survey, SEM, N=280
Krishnamurthy, A. & Kumar, S. (2018)	Consumer's perceptions of the brand image formed by eWOM with moderating effect of consumer involvement.	Consumer's involvement, eWOM, consumer's perception, brand image	High- versus low-involvement consumers will go through more eWOM information and spend more time with eWOM to develop an expectation or idea of the brand.	Survey, Multiple regression, N=1000

Alkhawaldeh et al. (2016)	Relationship between multi dimensions of brand equity and loyalty	Brand awareness, brand image, brand quality, brand trust, brand loyalty	There is no significant relationship between brand awareness and image with brand loyalty.	Survey, SEM, N=208
Zarantonello, L. (2013)	Impact of event marketing on brand equity	Pre-event brand equity, brand experience, brand attitude, post-event brand equity	Events have an impact on brand equity both directly and indirectly through brand experience and brand attitude.	Survey, SEM, (N=808)

APPENDIX A: STUDIES RELATED TO BRAND EQUITY.

Items	Loadings	
	Study 1	Study 2
Brand awareness (Yoo & Donthu's, 2001; Lasser et al., 1995)	.82	.79
BAWR1: I can recognize the advertised brand among other competing brands.	.69	.84
BAWR2: I am aware of the advertised brand.	.74	.87
BAWR3: The Advertised brand comes up first in my mind when I need to make a purchase decision on the product/service.		
Brand association (Yoo & Donthu's, 2001)		
BASS1: Some characteristics of the advertised brand come to my mind quickly.	.91	.86
BASS2: I can quickly recall the symbol or logo of the advertised brand.	.73	.90
BASS3: I do not have difficulty in imagining the advertised brand in my mind.	.81	.84
Perceived quality of brand (Yoo & Donthu's, 2001; Pappu et al., 2005)		
QUAL1: The likely quality of the advertised brand is extremely high.	.89	.85
QUAL2: The likelihood that the advertised brand would be functional is very high.	.81	.92
QUAL3: The advertised brand offers products/services of consistent quality.	.76	.86
Brand loyalty (Yoo & Donthu's, 2001)		
BLTY1: I consider myself to be loyal to the advertised brand.	.88	.92
BLTY2: The advertised brand, would be my first choice.	.74	.84
BLTY3: I will not buy other brands if the advertised brand is available to purchase	.69	.86
Attitude toward sponsored ad (Taylor & Todd, 1995)		
ATTD1: Reviewing the sponsored ad on the social media site is good.	.83	.85
ATTD2: Reviewing the sponsored ad on the social media site is a pleasant experience.	.61	.84
ATTD3: Reviewing the sponsored ad on the social media site is wise idea.	72	.68
ATTD4: I like the idea of reviewing sponsored ad on the social media site.	.69	.75
Perceived value of sponsored ad (Ducoffe, 1996)		
PVAL1: The sponsored ad on the social media site is useful.	.81	.78
PVAL2: The sponsored ad on the social media site is valuable.	.75	.87
PVAL3: The sponsored ad on the social media site is important.	.69	.71
Trust in sponsored ad (Nijssen et al., 2003; Vlachos et al., 2009)		
TRST1: The message of sponsored ad on the social media site is dependable.	.86	.81
TRST2: The message of sponsored ad on the social media site is reliable.	.74	.85
TRST3: The message of sponsored ad on the social media site is trustworthy.	.72	.69

APPENDIX B: MEASURES

Factor	Value	Frequency		Percentage	
		Study 1	Study 2	Study 1	Study 2
Gender	Female	141	174	51.46%	45.31%
	Male	133	210	48.54%	54.69%
Age	18-20	41	58	14.96%	15.10%
	21-30	105	69	38.32%	17.97%
	31-40	92	156	33.58%	40.63%
	41-50	24	75	8.76%	19.53%
	Over 50	8	16	2.92%	4.17%
	Undisclosed	4	10	1.46%	2.60%
Income	No income	82	36	29.93%	9.38%
	Less than $40,000	112	57	40.88%	14.84%
	$40,001-$60,000	37	105	13.50%	27.34%
	$60,001-$80,000	15	62	5.47%	16.15%
	$80,001-$100,000	7	56	2.55%	14.58%
	Above $100,00	0	45	0%	11.72%
	Undisclosed	21	23	7.66%	5.99%
Ethnicity	Caucasian	121	131	44.16%	34.11%
	Hispanic	31	43	11.31%	11.20%
	Asian	56	89	20.44%	23.18%
	Native American	2	12	0.73%	3.13%
	African American	41	57	14.96%	14.84%
	Multi-Racial	12	28	4.38%	7.29%
	Undisclosed	11	24	4.01%	6.25%
Education	High School	48	46	17.52%	11.98%
	Bachelor	119	193	43.43%	50.26%
	Master's	83	106	30.29%	27.64%
	Ph.D.	6	24	2.19%	6.25%
	Undisclosed	18	15	6.57%	3.91%

APPENDIX C: DEMOGRAPHIC DISTRIBUTION

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IMPACT OF COVID-19 ON ONLINE LODGING PLATFORM

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Abstract

Since the COVID-19 breakout started in 2020 in the U.S., tourism and hospitality have been negatively impacted greatly by the pandemic. Even though it is recovering, but still not comparable with the pre-pandemic level. Given this situation, it becomes important to understand the change and new needs of the customers in post-pandemic time to improve competitivity. The purpose of this study is to examine the factors that were associated with the lodging reviews facing the COVID-19 challenge. A univariate analysis and fixed effect model were conducted on unbalanced panel data of Airbnb Los Angeles 28,626 hosts across 19 months. We examined the association between review ratings (dependent variable) with the COVID-19 cases (primary independent variables) and other listing characteristics, such as prices, the number of reviews, super hosts, instant bookable, the number of listings, and host ID verified. We observed a significant positive relationship between the review ratings and the number of COVID-19 cases, super host, and instant bookable, but a negative relationship for the prices, the number of reviews, and the host listing numbers. These findings might result from travelers' increasing requirement on cleanliness and lenient cancellation policies, however, were harder to maintain for hosts during the pandemic. This mismatch between supply and demand was probably the reason for negative reviews, encouraging platforms to pay more attention on services to maintain customers.

Keywords: Lodging platform, hospitality, COVID-19, review ratings

INTRODUCTION

Covid-19 has produced a huge impact on global business since the outbreak in spring 2020. Tourism and hospitality industries were particularly hard-hit comparing with the other sectors (Krishnan et al, 2020) and the loss could be as high as $4 trillion (Vanzetti and Peters 2021). With the increasing number of vaccinations, tourism and hospitality have begun to recover, but still not as high as the pre-pandemic level (Richter 2021). Some reports said hospitality would not recover until the beginning of 2023 (Valinsky 2020, Adams 2021). Given the situation, approximately 25% of the hotels were facing possible foreclosure (Backman 2020), and it also greatly affected online hotel booking platforms. For example, Expedia's revenue decreased 57% in 2020 (Soper 2021) and Airbnb lost $3.9 billion in the last quarter of 2020 (Koenig 2021). Airbnb's loss of revenue might be due to serval reasons. First, both the hosts and customers were concerned with the staying during the pandemic, leading to a decreasing occupancy rate. Second, hosts had to drop their prices in order to compete for the shrinking demand of customers (Lane 2020). Facing the long-lasting effect of the pandemic, hotel booking platforms were adapting to the rapid change in order to survive. The key part for companies to compete was to focus on their customers' satisfaction. Companies would like to know the new needs and requirements for travelers during COVID-19. Our paper aimed to explore how the reviews would change with COVID-19 outbreaks to provide insights for hosts. Will COVID-19 cases affect customers' reviews on the rooms? What might be the important factors customers cared about? What could hosts learn from the past stay during the pandemic? To answer these questions, we used the public Airbnb Los Angeles host listing data for 19 months (February 2020 – Aug 2021), combing with the Los Angeles COVID-19 cases reported in California Health and Human Services (CHHS). In this paper, we mainly had the following insights: there was a positive relationship between the review ratings and the number of COVID-19 cases, super host, and instant bookable, but a negative relationship with the prices, the number of reviews, and the host listing numbers.

METHODS

Data source

We integrated two datasets: 1) Airbnb Los Angeles listing data scrapped monthly ranging from Aug 2020 -Aug 2021; 2) COVID-19 cases data (August 15th, 2021) on California Health and Human Services Open Data Portal ranging from February 1st, 2020 to August 13rd, 2021. We subtract the data for Los Angeles County. The first data set gave us 13 months' Airbnb listing data in Los Angeles, including the review ratings, time for the latest review, prices, etc. They were provided monthly, so there were redundant data where the same information appears more than once. We deleted these redundant data and also data with incomplete information on factors we cared about, such as reviews ratings and super hosts. The second dataset offered us the daily COVID-19 cases in Los Angeles. Given the latest review date in the first data set, we found the total number of COVID-19 cases for the past 14 days for each corresponding latest review date. We then used this to measure the severeness of COVID-19 during the customers' stay, because Airbnb's policy on the review period is at most 14 days after checking out. Due to the earliest date of COVID-19 cases we have was February 1st, we deleted the first dataset for the latest review date earlier than February 15th, so each listing had a corresponding past 14 days' COVID-19 cases. Finally, the integrated data set contained 28,626 different IDs with 104,999 different listings.

Methods

We first did the descriptive analyses and had statistical plots to show the basic information during the pandemic time (February 2020- August 2021). From the descriptive analysis, we observed the trend of ratings, which ranged from 0-5 in increasing level of quality. We then used ratings as the dependent variable, and the COVID-19 cases of the past 14 days of the latest review as our primary independent variable, which represented the severeness of the pandemic during the customer's stay. Except for the primary independent variables, we also included other characteristics of the listings, including the room prices, whether super host, whether host identity was verified, whether instantly bookable, host listing numbers, and the number of reviews. We conducted a univariate analysis (ANOVA) for the COVID-19 cases and each listing characteristic. Furthermore, we did the Hausman test and accordingly fit a fixed effect model (rather than the random effect model) on the unbalanced panel data with 28,626 different users to solve the problem that one ID has multiple different latest review times. Analyses were performed using RStudio, version 1.2.5042.

RESULTS

We analyzed the Airbnb listing information of Los Angeles during the period of the pandemic. We first plotted the distribution of the review ratings, the number of months that there was at least 1 review, and prices. From Figure 1 and Figure 3, we could see that most listings have good review ratings (4.74 on average) and the average price is $201.25. Figure 2 plotted the number of months that there was at least 1 review. It was shown that most listings had reviews in fewer than 4 months out of the 19 months range.
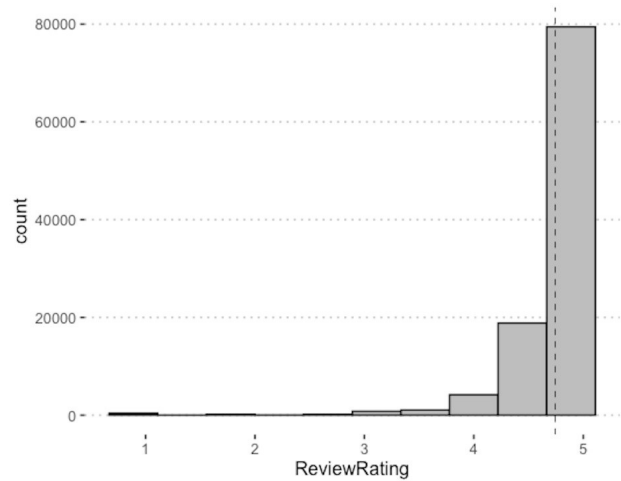

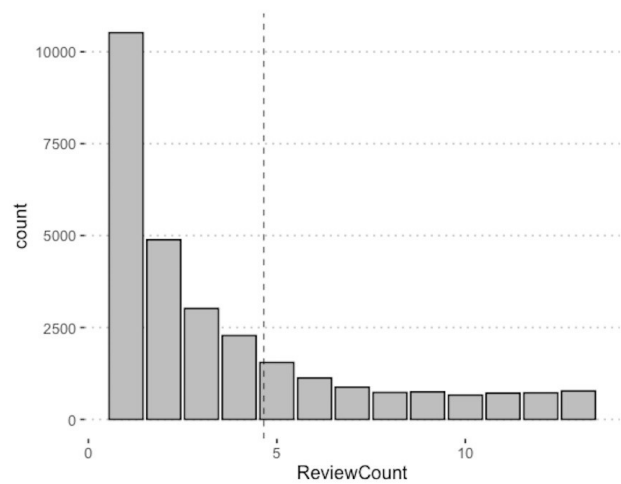Figure 1. A plot of the review ratings from February 2020 to August 2021

Figure 2. A plot of the number of reviews from February 2020 to August 2021
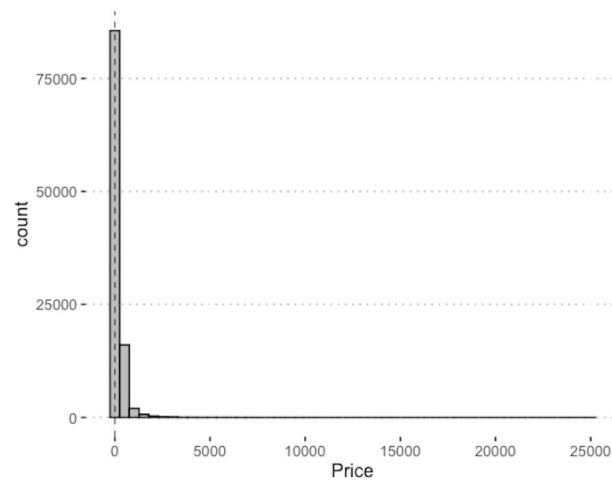
Figure 3. A plot of prices from February 2020 to August 2021

Based on the histogram results, we classified the review ratings into "High" (above 4.75) and "Not high" (below 4.75) levels and conducted the univariate analysis (Table 1) by taking the 28,626 hosts' listings as 104,999 individual observations.

	Review ratings		
	Not high (Below 4.75) 31,365 listings	High (Above 4.75) 73,634 listings	p value
Cases	35,080.50 (50503.43)	35,192.59 (51584.79)	0.746
Price	180.96 (322.97)	209.90 (326.51)	0***
Super Host	0.15 (0.35)	0.66 (0.47)	0***
Number of reviews	52.32 (79.27)	74.89 (93.99)	0***
Host ID verified	0.85 (0.36)	0.82 (0.38)	0***
Number of host listing	16.01 (81.50)	10.54 (77.58)	0***
Instant bookable	0.54 (0.50)	0.38 (0.49)	0***

Note: Mean (SD) and P-value from ANOVA were presented.
Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.'.

Table 1. ANOVA analyses of the review ratings.

The ANOVA results showed that for the high and not high review, the mean of COVID-19 cases was higher for the high review rating level, but not significant (35,080.50 and 35,192.59 for the not high and high level; p = 0.746). A similar pattern was found for three listing characteristics (price, whether super host, and the number of total reviews). To be more specific, for high-level ratings, the prices were higher (180.96 for low and 209.90 for high), more were super hosts (0.15 for low and 0.66 for high), and the number of reviews was higher (52.32 for low and 74.89 for high). However, for the characteristic of whether host ID was verified, the number of host listing, and whether instantly bookable, we found the opposite pattern those high ratings had a lower value: 0.85 verified host ID for low ratings and 0.82 for high; 16.01 hosting listing for low ratings and 10.54 for high; 0.54 instantly bookable for low ratings and 0.38 for high.

Furthermore, we checked the relationship between the review ratings and the COVID-19 cases, and listing features, including the room prices, whether super host, whether host identity was verified, whether instantly bookable, host listing numbers, and the number of reviews. From the ANOVA results, we found that COVID-19 cases were not significantly associated with the ratings, but significant for the listing characteristics. The reason was that each ID might have several listings and the IDs with more listings weighted more than those IDs with fewer listings. To solve this problem, we treated the data set as unbalanced panel data (28,626 IDs), and did a Hausman test to choose the fixed effect model over the random effect model. The results were summarized in Table

Review Ratings		
Covariates	Coefficients	P-value
Cases	3.99 e^(-8)	0***
Price	-1.20 e^(-5)	0.003 **
Super Host	1.25 e^(-2)	0***
Number of reviews	-4.43 e^(-4)	0***
Host ID verified	-1.45 e^(-3)	0.81
Host listing numbers	-1.67 e^(-4)	0.005**
Instant Bookable	1.53 e^(-2)	0***

Note: Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.'.

Table 2. Fixed effect model results

Our model suggested that review rating was significantly positively related with the number of COVID-19 cases, whether super host, and whether instantly bookable, but negatively related with price, the number of reviews, whether host ID verified, and the number of host listings. Specifically, the coefficient of the COVID-19 cases was 3.99 e^(-8) with p-value less than 0.001; the coefficient of whether super host was 1.25 e^(-2) with p-value less than 0.001; the coefficient of instant bookable was 1.53 e^(-2) with p-value less than 0.001; the coefficient of prices was -1.20 e^(-5) with p-value 0.003; the coefficient of the number of reviews was -4.43 e^(-4) with p-value less than 0.001; the coefficient of verified host ID was -1.45 e^(-3) with p-value 0.81; and the coefficient of the number of host listings was -1.67 e^(-4) with p-value 0.005.

DISCUSSION

Our study explored the factors that were associated with Airbnb's review ratings. We found that the number of COVID-19 cases and listing features (prices, super host, number of reviews, listing numbers, instant bookable) played a significant role in the review ratings, but in different directions.

First, a positive relationship was observed between the number of COVID cases and the review ratings. One possible reason was that customers were more tolerant by their nature during their stay in the pandemic (Barry 2020). It was possible that these travelers more easily gave high ratings given the hard time to get satisfied hotel service. Another possible reason was that most Airbnb's listings were hosted in home rooms rather than hotels, and many travelers felt at home when they were actually away at home (Guest Touch 2020). This result provided the hosts a different perspective in providing lodging service in COVID-19 to compete with professional hotels. It gave Airbnb hosts better chance to maintain customers by providing home-like environment, including both the atmosphere (like family decoration of photos and roommates) and services (like kitchen).

Second, we found a negative relationship between prices and the level of review ratings. Past reports showed that customers had a higher expectation for more expensive hotels, and thus easier to get unsatisfied when they paid a high price (Li et al 2020; Supima 2021). It was natural that customers cared more when they paid high to see whether the rooms were worth the prices. Additionally, during the pandemic, customers wanted more lenient change and cancellation policies (Webrezpro 2021). However, Airbnb cancellation policy (no full refund after 48 hours of booking) had been stricter than hotels (many could be freely cancelled 48 hours before check-in). Because of this Airbnb policy, many customers who had paid high prices might have to keep their original stays and thus easily gave bad ratings.

Third, we found a negative relationship between the number of reviews and review ratings. More number of reviews might mean that this room served more customers. During COVID-19, the cleanliness was hard to handle. Many hotels cut back daily room cleanings to save operational costs (Sumagaysay 2021). However, customers were pickier for this service and ranked it as a top factor in choosing a hotel during COVID-19 (Macaron 2020, O'Toole 2020). Comparing with hotels which could leverage the economics of scale to have professional cleanliness services, home hosts more probably could not provide the same level. The mismatch between demand and supply during the pandemic might lead to more negative reviews.

There were several limitations to our study. One was that we did not have the detailed information for each stay of the listings during the pandemic. The data was monthly scraped, so we did not know each of the new stays during two latest review date. Additionally, review ratings from pre-pandemic of

each listing would affect the correlation. Another was that we did not process the text analysis of each review because the data did not connect comments with ratings. Processing the text might lead to finding more causation results. Lastly, in the future study, we would like to add more cities to incorporate the location effect for more analysis. These data would be helpful to analyses more of the review rating influence factors.

CONCLUSION

In summary, we found that Airbnb review ratings were positively correlated with COVID-19 cases and some listing characteristics, such as super host and instantly bookable. However, higher prices and the number of reviews were negatively associated with review ratings. From the results, we provided managerial insights for lodging platforms and hosts. Travelers were more tolerant of the operations of lodging during the pandemic, but they become pickier on some services, such as cleanliness. Airbnb has published policies on room cleanliness to ensure customers of sanitation, but more adjustments were needed, such as flexible changing and cancellation policies. This became a weakness for host lodging such as hosts on Airbnb during the pandemic comparing with hotels.

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CURRENT SITUATION OF MILK PRODUCERS AND THEIR NEEDS FOR UPCOMING PROGRAMMING PERIOD

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Abstract

Raw cow milk represents one of the most important commodity in the agricultural market. Consumption of dairy products by Slovak consumers is very low compared to other countries in European Union and the world what results in a negative impact on businesses in this sector. One of the main reasons is low demand of consumers. The aim of the article was to evaluate the current situation of and needs of milk producers in Slovakia in relation to the strategic objective - Farmer position in value chains. If we discuss the last 10 years, the Slovak sector of primary milk production has experienced three dairy crises. These crises caused that up to 37 % of milk producers cease their production. Despite the fact that by 2015 the milk market was regulated, milk supplies and milk purchase prices were on a swing. We know that Slovakia accounts for less than a percentage of European supplies but development on our market reflect to the situation on the European market. In 2019 the situation in primary milk production slightly improved mainly thanks to the recovery of milk purchase prices, but also thanks to support but still we cannot talk about big success. Milk purchase prices have recovered slightly and averaged 32.6 cents per kilogram over the year. On the other hand, costs have risen again, either because of rising energy prices or because of rising labour costs caused by the government measures. The dairy market situation is affected by changing climate conditions as well as demanding conditions for the marketing of dairy products.

Keywords: milk, milk producers, common agricultural policy, milk consumption

INTRODUCTION

The raw cow milk can be classified as one of the most important commodities of the agrarian market. Besides that, the raw cow milk and dairy products play an important role in the human nutrition and health. Dairy products in general and especially milk, as their raw material, have a particular micronutrient composition. Milk has been naturally recognized as a privileged calcium source but in its mineral fraction, several other elements can be distinguished such as phosphorus, magnesium, zinc, and selenium (Gaucheron, 2011). Milk is generally considered an important protein source in the human diet. Milk as a high-quality resource of proteins of the animal origin, and the calcium content indispensable for the bones creation (Matić et al. 2014; Gavurová et al. 2014). The cow milk is probably the most frequently consumed milk between people. Studies on milk consumption have shown a controversial and complex effect on human health. Milk as important macro and micronutrient sources has its irreplaceable role in healthy diets (Rice, Quann and Miller, 2013).

The nutritional richness of milk is unquestionable; it is a good source of high biological value proteins with polyvalent roles in immune function, as well as nutrient transport and absorption and important vitamins and essential minerals (Pereira, 2014). The totality of available scientific evidence supports that intake of milk and dairy products contribute to meet nutrient recommendations, and may protect against the most prevalent chronic diseases such as osteoporosis, cardiovascular diseases and type 2 diabetes. The most recent evidence suggested that intake of milk and dairy products was associated with reduced risk of childhood obesity. In adults, intake of dairy products was shown to improve body composition and facilitate weight loss during energy restriction (Thorning, et al. 2016, Gulseven and Wohlgenant, 2017).

The dairy sector is very important for the economy of the EU. The EU is the largest producer of milk in the world, and it exports milk around the world (Hillerton and Berry, ,2004).

Over the last 30 years, the Common Agricultural Policy (CAP) has strongly affected the European dairy

sector's structure. Dairy production quotas were one of the iconic instruments of the CAP. They were implemented in 1984 in the face of dairy oversupply and low milk prices in the European Union (EU). Based on reference volumes from 1983, a quota was allocated to each Member State (MS) to control milk production, stabilize milk prices and producer incomes and reduce the European budget for market support (Barthélemy and David, 2001, JRC and IPTS, 2009, Salou et al., 2017).

The European Union (EU) dairy quota came to an end on 1 April 2015. This marked the latest of a series of Common Agricultural Policy (CAP) reforms, initiated more than a decade earlier, to bring EU dairy policy into line with other common market organisation schemes, with the aim of fostering a competitive export-oriented sector (Philippidis and Waschik, 2019).

The OECD-FAO Outlook present a scenario that world milk production is expected to grow at 1.7% p.a. faster than most other main agricultural commodities over the next decade (by 2028). On the other hand, production in the European Union, the second largest producer, is projected to grow more slowly than the world average. The European Union's medium term growth is due to a small increase in domestic demand (cheese, butter, cream, and other products) as well as an increase in global demand for dairy products (OECD/FAO, 2019).

In Europe, milk output increased to 226.4 million tonnes in 2018, up 0.8 percent from 2017, with higher outputs in the European Union. Milk deliveries in the European Union reached 167.3 million tonnes, or about 1.7 million tonnes more, an increase of 1.0 percent from 2017. The rate of growth of output expansion could have been slightly higher if not for the 2018 summer drought that affected parts of Europe and the marginal decline of dairy herd numbers (FAO, 2019). Nowadays, the number of dairy cows in Europe has decreased as a result of an increased milk yield per cow (Nguyen, Hermansen and Mogensen, 2010).

The milk production has increased globally through increased milk yields and improved production efficiency, the reduction in the number of small dairy farms, and expansion of in dairy herd size (Krpalkova, et al., 2016). In Europe overall per capita demand for fresh dairy products is declining, but the composition of demand has been shifting over the last several years towards dairy fat, e.g. full-fat drinking milk and cream (OECD/FAO, 2019).

Across the 28 countries of the European Union, there are 700,000 dairy farms, 12,000 milk processing sites and more than 300,000 people working in the sector. The dairy sector is the industrial and societal backbone of rural Europe in the EU27 as much as in the UK. The UK dairy sector is an interlinked part of our EU dairy chain (EDA, 2020, Downing and Coe, 2018).

The EU produced 172.2 million tonnes of raw milk. The volume of raw milk produced in the EU was +0.9% higher in 2018 than in 2017. The production of raw milk on the EU's farms was a provisional 172.2 million tonnes in 2018, which represents a year-on-year increase of 1.6 million tonnes. This higher level of production can be put in some context by looking at production levels in the run-up to the abolition of quotas; EU farms produced 164.8 million tonnes of raw milk in 2014 and 159.0 million tonnes in 2013 (Eurostat.2019).
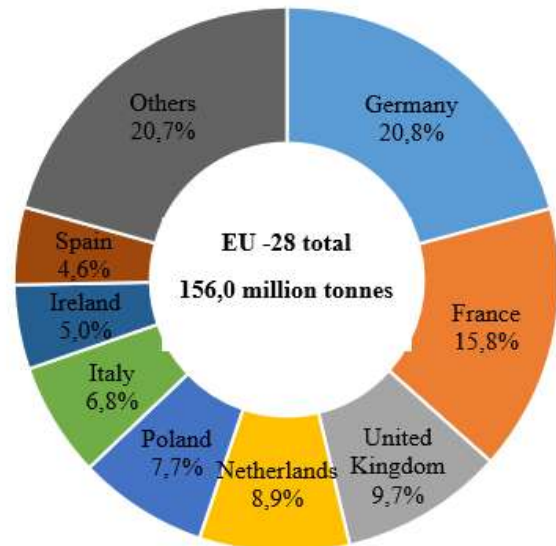
Figure 1 Collection of cows' milk by dairies, 2018
Source: Eurostat (online data code: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=apro_mk_pobta&lang=en)

In the Figure 1 above we can see that in 2018, one-fifth of the EU's cows' milk was produced by farms in Germany and a similar proportion (20.8 %) was processed by German dairies. Indeed, just as Germany, France, the United Kingdom, the Netherlands, Poland and Italy together provided a little over two-thirds (68.5 %) of the raw cows' milk produced, so they also accounted for a little over two-thirds (69.7 %) of cows' milk collected by dairies (Eurostat, 2019).

Even though Slovakia in the EU- 27 belongs to the smallest milk producers we have to admit that we agree that the milk production is important for the society as a whole, both in terms of economy of state and the employment of rural population. It is a traditional economic sector, that due to its very favourable conditions promises a very viable future (Gurčík, et al. 2016).

	Year						
	2012	2013	2014	2015	2016	2017	2018
Milk production							
(thousands of litres)	931 474	906 686	921 078	929 536	906 115	910 683	905 429
Average annual yield per cow (litres)	6 112	6 334	6 315	6 537	6 668	6 937	7 056

Table 1 Development of milk production and milk yield over the period 2012-2018

Source: Own processing based on data from the Statistical Office of the Slovak Republic - Public database DATAcube

Even though milk production in the reporting period fluctuates in Table 1 above, we can observe a positive development in milk yield, which is growing every year. In 2018 there was a year-on-year increase in milk yield by up to 119 l (2.7%) to 7 056 l milk per dairy cow per year, which represents the highest milk yield in the monitoring period so far.

DATA AND METHODS

We developed a questionnaire, which was reviewed by an expert from the field. The questionnaire was distributed by e mail, but mainly by personal inquiries. The questionnaires were systematically distributed among all milk producers in Slovakia. The survey was carried out in the months of September - November 2019. The survey was carried out in Slovakia.

The aim of the questionnaire research was to describe the current situation and identify the needs of milk producers. For this purpose, was used a questionnaire which consisted of two basic parts:
1. The current state of the milk producers in Slovakia.
2. Identification of the needs of the company in the new programming period CAP 2021-2027 in relation to the strategic objective - Farmer position in value chains of the prepared Strategic Plan

In order to fulfil the goal that was set, we chose a questionnaire survey as the main method. We chose this method mainly because the questionnaire generally represents a series of questions of various types submitted in writing or digital form. The questionnaire is easy to get information very quickly from a large number of people. In general, the advantage of the questionnaire survey is that it has low cost in time and money. The questionnaire is therefore a much more "economical" tool.

The criterion for establishing the survey sample were all the primary milk producers in Slovakia. Out of a total of 401 primary milk producers that process milk in Slovakia, we managed to reach 104 primary milk producers, which represents 27 % of the total number of respondents surveyed.

In the Figure 2 below it can be seen that the largest share of respondents was from Nitra region and the largest share of respondents was agricultural cooperatives (70 %).
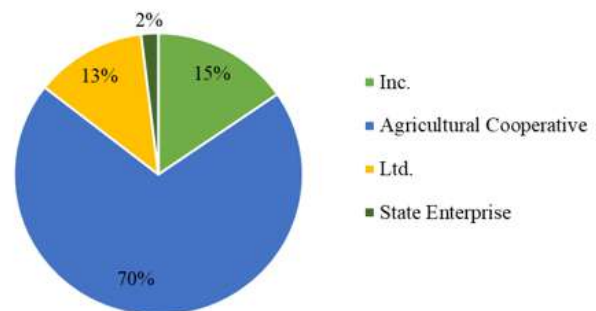

Figure 2 The legal form of the businesses of the respondents surveyed

Source: Own processing based on data from questionnaire survey conducted from September to November 2019
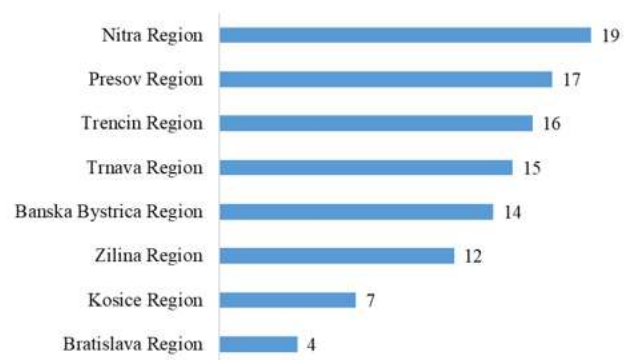

Figure 3 The regional representation of the respondents surveyed

Source: Own processing based on data from questionnaire survey conducted from September to November 2019

RESULTS AND DISCUSSION

Recent developments in European dairy policies and dairy markets are posing challenges for dairy cooperatives, because they are affecting interest alignment between milk producers and cooperative management (Bijman, and Hanisch, 2018). To address issues in the dairy sector and to discuss the need to increase the bargaining power of primary producers within the dairy value chain the European Commission introduced in 2012 new legislation called as "Milk Package". The Milk Package's objective is to strengthen the position of dairy producers in the dairy value chain and to prepare the sector to operate in a more market-driven environment, especially with the end of the quota system in 2015. Under this legislation, Member States have the option to make written contracts between milk producers and processors compulsory, whereas farmers have the possibility to negotiate contract terms, including prices and delivery conditions, collectively via recognized producer organization (Regulation (EU) No 261/2012; OJ L 94, 30.3.2012, p. 38., Wijnands, Bijman, and Tramnitzke, 2017).
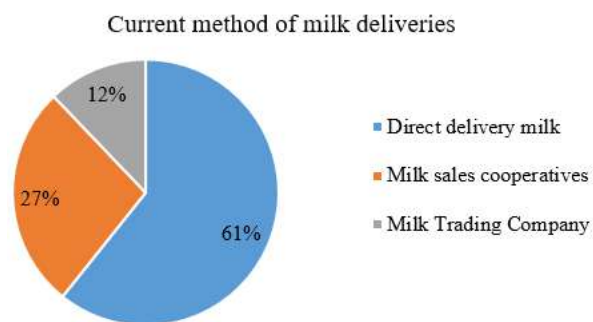
power, which is very difficult to obtain by the producer himself. Contribution of dairy cooperatives as option for market entry point for smallholder dairy producers may help develop the dairy sector (Tassew and Seifu, 2009).

The main reason for establishment of the Milk Trading Company is to develop a partnership with dairy farmers. The goal is to generate higher and more stable financial margins, using market information on the sale price for milk and the cost of feed inputs. Milk trading companies use different tools, such as the futures market, contracts with customers, price guarantee certificates and margin insurance. The milk trading companies usually maintain long-term relationships with several local dairy farmers' cooperatives to ensure stable and high quality fresh milk supply. The biggest difference is in vertical cooperation. The three advantages of trading company are:
1. Secure, stable and long-term supply.
2. Access to high quality fresh milk.
3. Cooperative arrangement (Industry, 2017).

Figure 5 Current method of milk deliveries
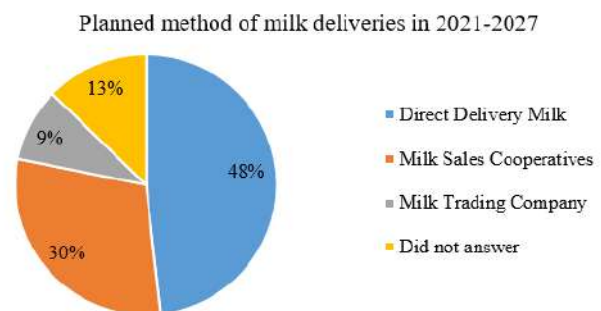
Figure 6 Planned method of milk deliveries in 2021-2027

Source: Own processing based on data from question-naire survey conducted from September to November 2019

Source: Own processing based on data from question-naire survey conducted from September to November 2019

In the Figure 5 above we can see that more than a half of the responders prefer direct deliveries of milk. Currently up 61 % of our sample deliver milk straight to processor. Nowadays, just minority of responders prefer some type of cooperation.
Dairy Sales Cooperatives has three main advantages especially for small farmers:
1. Dairy Farming Cooperatives Support the Industry by Balancing Production Costs.
2. Dairy Cooperatives Provide Consistent Pricing.
3. Cooperative Dairy Farming Can Provide Greater Control over Processing.
The management of these cooperatives is to ensure the negotiation of bargain purchase prices for all members. A farmer may be more concerned with his production than with a commercial activity. In general, these cooperatives have some market

In the context of the upcoming CAP programming period 2021-2027 we asked the responders if they plan to change the way how they deliver the milk. In the Figure 6 above we can see that 13 % of milk producers is not yet decided. We can see the small increase in both - Milk Sales Cooperatives as well in Milk Trading Company, but despite od the fact that cooperatives have been a key organisation linking smallholder farmers to markets (Mazzarol et al., 2013, Ji et al., 2017) in Slovakia milk producers prefer directly deliveries straight to processor as well in the upcoming CAP 2021-2027 (48 %).
Following this question, we want to know how milk producers want to improve their position in supply chain. In the Figure 7 above we can see that the milk producers want to improve their position in supply chain by different ways.

Figure 7 Preferred methods and options for improving the position of primary milk producers in the supply chain
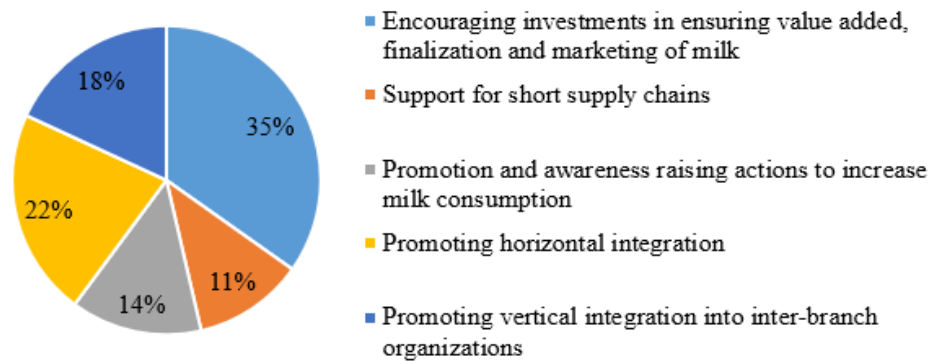
Source: Own processing based on data from questionnaire survey conducted from September to November 2019

Most respondents (35 %) see the position improvement in supply chain in encouraging investments. Investments realized in dairy farms enable the implementation of new technologies, and involve benefits associated with an increase in efficiency, a reduction in costs, an improvement in the quality of products and a reduction in the adverse impact on the environment, and an improvement in animal welfare (Bewley, 2010).

There is an abundance of literature on vertical integration but less on horizontal integration. The emphasis on horizontal integrations is no doubt heavily influenced by the dominance of the cooperatives in the dairy industries of the European countries concerned. Horizontal integration is a horizontal arrangement between many independent farmers. In our survey 22 % pf respondents see the possibility in improvement their position in supply chain in horizontal integration. On contrary, just 18 % of responders answered that vertical integration is the possibility for improvement of their position in supply chain. There are many good examples of use of vertical integration in many European countries. Vertical integration has the potential to both help the farmers and the dairy processing facilities survive in a complex and ever changing industry (Gilles, 2012). In general, we think that vertically coordinated agricultural formation can improve the competitiveness of dairy production.

In addition to policy changes, dairy farmers and dairy cooperatives have experienced a number of major changes in market environment over the past decade, and most of these changes will not simply pass by but, rather, continue to affect the dairy industry in the near future. The three major changes were identified in market conditions – increasing volatility in dairy markets, changing consumer preferences, and ongoing concentration in dairy value chains (Bijman, and Hanisch, 2018).

The demand for milk has been changing with people consuming less milk per capita worldwide. One of the biggest threats to milk production is the increase in demand for soymilk (soy drink) as an alternative to cow-based milk. (Bórawski, et al., 2020). In Figure 7 we can see that 14 % of responders see this threat. This sector need to raise the awareness about health benefits of milk to increase milk consumption.

CONCLUSION

In recent years, the volume of milk production has constantly been growing, which indicates the growing importance of this agri-food sector in the EU market. Despite of this positive situation on EU market we need to bear in mind that the price of milk is highly volatile, and the demand for milk has been changing.

Even though the raw cow milk and dairy products play an important role in the human nutrition and health the consumption of dairy products by Slovak consumers is very low compared to other countries in EU and the world. Low demand of consumers, changing condition on the market and climate impacts results in a negative impact on businesses in this sector.

We need to focus on changing consumer preferences in Slovakia with concentration on support of milk consumption. It is important to build good relationships with consumers and promote health benefits of milk. The education and advertisement should play an important role in consumption of milk.

Slovakia's Union of Milk Primary Producers (SZPM) together with the milk processors' Dairy Union (SMZ) launched a Dairy Fund, which associates more than 570 Slovak milk producers and processing companies to help increase milk consumption in Slovakia. We need to focus as well on vertical integration and support investment into the dairy sector. In the upcoming programming period of the CAP 2021 – 2027 Slovakia need government, which will stabilize this sector, which is long time investment-undersized and is very labour intensive.

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PRACTICAL APPLICATION OF FORENSIC ACCOUNTING IN CASE OF MONEY LAUNDERING

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Abstract

In this article we try to explain the terms forensic accounting and money laundering. We also dealt with money laundering techniques. Forensics as a scientific discipline has been practiced since ancient times, but today it is more "sophisticated", which is again conditioned by the rapid development of science in the 20th century. Money laundering involves the process of concealing the illegal origin of money or property acquired through crime. We analyzed the state of suspicious transactions in Bosnia and Herzegovina in the period from 2017 to 2020. We also analyzed the investigative activities of the FID in the period of 4 years, where we found an increase in orders or requests from the prosecution that the FID acted. It is estimated that from 300 to 1000 billion dollars are laundered annually in the territory of the USA alone. Estimates for Bosnia and Herzegovina say that about $ 700 million is laundered annually.

Keywords: forensic accounting, business forensics, fraud, money laundering, Financial Intelligence Unit

INTRODUCTION

In the past, forensic accounting was mainly used to gather evidence in court proceedings. Nowadays, forensic accounting and business forensics are evolving as commercial activities like commercial auditing. Investigative accounting, as an integral part of forensic accounting, is aimed at detecting fraud, most often when there are warning signs that fraud has occurred. Global trends, financial crises, and trends in corporate governance have led to a sharp increase in the number of financial frauds, which has jeopardized the confidence of a large number of users in the financial information presented in the financial statements (Mikerević, 2013). Forensic accounting is an integral part of business forensics. Business forensics can be defined as a set of different knowledge and detection methods in the fight against business fraud of all kinds and in the fight against corruption. Forensic accounting or accounting forensics can be defined as the application of in-depth investigative techniques and analytical skills to detect manipulations in financial statements. It also includes preventive forensics, property assessments, business partner assessments, and the like (Stanković, 2021).

Frauds are as old as the human race. As early as Hammurabi's Babylonian Code of 1800 BC the problem of fraud, as well as punishment, was pointed out, e.g. if the shepherd to whom the owner entrusted the sheep for care misrepresents the gain of the sheep or sells them for money, he will be found guilty and will be obliged to pay the owner ten times more than the established loss, meaning that people have been prone to fraud since time immemorial. Forensics (forensic science) is the application of a wide range of sciences with the aim of providing answers to questions of interest to the legal system. Forensics provides answers, both in relation to crime and in connection with civil proceedings. The word "forensics" comes from the Latin adjective "forensis", which means "before the forum". In ancient Rome, filing a criminal complaint meant presenting the case in front of a group of public individuals at a forum, while the verdict in his favor between the defendant and the prosecutor would be given to the one who had

better arguments. The oldest lies and their discovery come from the time of Archimedes (212 BC) and Ancient Greece, who then established the specific gravity of the alleged golden crown and proved that the one he examined was not made of gold. An old Arab event tells us about a buyer, who was supposed to investigate a murder that was committed with a sickle. He collected all the sickles in the village and only one of them collected flies, which was used as evidence for the murder. The first examination manual was written in 1248 by the Chinese Song Ci, while the pioneer of forensics in Europe is considered to be the French court physician-surgeon Ambroise Pare (1510-1590). It was not until the end of the 18th century that several articles on forensic and police medicine were published. Later, the discovery of the microscope contributed to the development of this science, as well as the identification of people from the scene using DNA analysis.

Over time, knowledge from other scientific fields began to be applied in court proceedings, so that today forensics has become an interdisciplinary field of using various scientific achievements and knowledge, with the aim of helping to make objective, reasoned, and fact-based court rulings. Forensic accounting is the study and interpretation of accounting records. The history of bankruptcy dates back to ancient Rome, from the existence of the socalled trade communities. The then authorities in Greek cities, as well as in the early Jewish state, were faced with the problem of the debtor's non-payment of debt to creditors. Roman jurisdiction provided for absolute authority over the debtor's property and rigorous penalties were provided for the debtor "slavery" or even "dismemberment of the body." The great influence of Roman bankruptcy law on the creation of modern bankruptcy law should be emphasized here, for which Spanish bankruptcy law is especially credited. The first written sources on bankruptcy date back to 1542 in England, when the law relating to bankruptcy was passed.

NEEDS FOR FORENSIC ACCOUNTING AND BUSINESS FORENSICS

The imagination of people who falsify financial statements is inexhaustible, so the examples of abuses in accounting and business fraud can be enumerated indefinitely. A lot of accounting abuses have been detected, but there are certainly many more accounting abuses that have not been detected. So, the question is, how can an investor fight against information from reports in which accounting has been misused? A logical answer is imposed, it should be fought by auditing the financial statements. In practice, however, this has proved insufficient. Investor protection against the abuse of creative accounting and intentional fraud can be increased by applying "forensic accounting". Forensic Accounting

is based on an expert basis and aims to determine the assessment of "true and fair" presentation of the situation and results of the reporting entity (Belak, 2011).

In the past, forensic accounting focused on detecting violations in the application of accounting and legal regulations, most often in court expertise. Today, forensic accounting aims to detect fraud, prevent fraud, find evidence of fraud, and assess the actual situation for clients of forensic accounting. Nowadays, commercial forensic accounting is developing more and more, which can be an informal activity in cases when its results serve only the client and are generally not available to the public, nor do they belong to public documents, such as audit reports or expert reports used for the needs of the court. In the past, and in some countries even today, no special permit or authorization is required to perform commercial forensics, while in more advanced countries today there are Certified Forensic Accounting Professionals. Due to bad experiences, users of financial statements are increasingly cautious, increasingly relying on forensic accounting, which is also the fastest growing area of accounting. Today, more and more companies, banks, insurance companies, and many other institutions have their own departments dealing with forensic accounting and business forensics. Crimes and the complexity of detection are constantly increasing, and it is, therefore, necessary to develop appropriate methods and mechanisms to prevent them (Stanković, 2021).

Forensic accounting involves procedures, methods, and techniques in order to determine the following:
- what works incorrectly;
- what is presented and reported inaccurately (Fraudulent Financial Reporting);
- whether there are bribery and corruption;
- whether there is fraud or intent to defraud (Fraud Or Fraudulence);
- whether there is theft;
- whether there is money laundering;
- whether there is misrepresentation;
- whether there is extortion;
- whether there are forgeries and the like.

We say that forensics is an in-depth recording and investigation of events, which are suspected of doing something wrong or that it is a fraud. Forensic accounting can be divided according to purpose into two categories, as follows:
- investigative services, which may or may not be used when testifying in court, and
- services in litigation, i.e. a case where a forensic accountant appears in court as an expert, consultant, court expert, or in other roles.

Investigative services mean that a forensic accountant investigates fraud using his knowledge and experience in accounting to detect and prevent fraud, embezzlement, but also a misrepresentation. Therefore, in court disputes, the investigator is required to control, ie to determine whether there

are business frauds, and to assess the value of the property, as is necessary in cases of divorce or division of property into co-owners. In practice, the most common areas of fraud related to accounting are:

- non-compliance with legal regulations in order to show the desired results;
- forgery of data and accounting documents;
- showing fictitious events;
- intentional distortion of business events, and
- covering up the theft of money and other property (Belak, 2011).

Non-compliance is a disregard for the law and an adjustment of the display with the intent to falsify in the hope that it will not be detected. Why there is non-compliance with legal regulations, the reasons may be different, and the most common are the following:

- showing better results (so that managers pay themselves rewards), and
- showing weaker results (so as to reduce liabilities in order to reduce the payment of tax liabilities).

False results are obtained by various manipulations, i.e. by increasing or decreasing accounting items and in that way, the desired result is achieved, but also tax evasion (Kulić, Stanković, Abidović, 2015). Distortion of business events implies the interpretation and recording of a business event, in a way that does not correspond to the truth, all with the aim of achieving the desired goal. This is achieved by presenting fictitious events, fictitious documentation, and with fictitious companies or companies that have been established in an illegal manner, and which serve to perform fictitious activities. The most common example of the intentional distortion of business events is the collection of damages from insurance companies, while the theft of money and other property is most often associated with the falsification of accounting documents, as well as various reports (Stanković, 2021).

PREVENTION AND DETECTION OF MONEY LAUNDERING

Money laundering is an old criminal act that states have been fighting for a long time with more or less success. Money laundering is increasingly capturing the attention of the public of individual countries, as well as the international community. With the development of information technologies, as well as the interconnectedness of national financial systems, it becomes a pronounced global problem (Banda, 2019). This process contains two aspects: concealing the source or origin of illegally acquired "dirty" money, and its "cleaning", laundering, or legalization by turning it into some form of financial or real assets (Puljić, 2004). Money laundering is still a relatively new and legally controversial issue. The term "money laundering" originated in the United States during the Prohibition period, in the third decade of the last century, when criminals presented money earned from illegal production and smuggling of alcoholic beverages, as well as from other illicit activities, as earnings earned in the chain of their laundry and car wash (Stanković, 2014). Namely, large sums of money from the sale of alcohol, extortion, prostitution, and gambling, had to be legalized in some way. One way to do that was to involve criminal organizations in a legal business. Al Capone's condemnation of tax evasion in the 1930s influenced the expansion of money laundering. In connection with this phenomenon, the term "money laundering" began to be used in journalism, whence it was taken over by science. The first use of the term money laundering in the press was recorded in the United States in 1973, during the Watergate affair. There are different definitions of money laundering, which are not fundamentally different. Some are simpler, while others are more complex. The definition of money laundering is done mainly through illegally acquired property or profits. According to the National Strategy for Combating Money Laundering and Terrorist Financing, money laundering is the process of concealing illegal origin, money, or property acquired through crime. Money laundering could be defined as a type of property crime, the purpose of which is to conceal the existence and origin of illegally acquired funds, by including these funds by transformation, transfer, exchange, concealment of purposes, mixing with legal means, or otherwise into legal financial flows, which, in addition to the origin of illegally acquired funds, conceals criminal activity and achieves the ultimate goal of money laundering - the unhindered use of proceeds from criminal activity and avoidance of punishment for committed crimes (Kulić, Stanković, Abidović, 2013).

PROBLEMS IN DEFINING THE NOTION OF MONEY LAUNDERING

In modern conditions, money laundering and terrorist financing are largely closely linked in certain areas. The topic of money laundering is very topical in the region. The political, scientific, and professional public is preoccupied with this phenomenon due to its complexity, both in its forms and in the possibilities to detect and prevent its harmful effects, as well as to effectively conduct criminal proceedings against perpetrators of money laundering. When detecting organized criminal groups, money laundering is almost always mentioned as one of the criminal offenses charged against members of these groups. In scandals or outrage, which abound in political life in the region, money laundering is also represented as one of the basic illegalities, which is charged against the actors of these events. Money laundering is still a relatively new and legally controversial issue. Money laundering is the process of concealing the

illegal origin of money or property acquired through criminal activities. When the material gain is obtained by committing a criminal offense, the perpetrator seeks a way to use the money in such a way that it does not attract the attention of the competent authorities. Therefore, it performs transactions that serve to present the money as legally acquired. There are different definitions of money laundering, which are essentially indistinguishable, some of which, as noted earlier, are simpler, and others more complex. The definition of money laundering is done mainly through the property, or profits acquired illegally. By money laundering, the legislator means:

1. conversion or transfer of property acquired by committing a criminal offense;
2. concealment or misrepresentation of the true nature, origin, location, movement, disposal, ownership, or rights in relation to property acquired by committing a criminal offense, and
3. acquisition, possession, or use of property acquired by committing a criminal offense.

Money laundering could be defined as a type of property crime, the purpose of which is to conceal the existence and origin of illegally acquired funds, by including these funds by transformation, transfer, exchange, concealment of purposes, mixing with legal means, or otherwise into legal financial flows, which, in addition to the origin of illegally acquired funds, conceals criminal activity and achieves the ultimate goal of money laundering - the unhindered use of proceeds from criminal activity and avoidance of punishment for committed crimes. Among the many definitions of money laundering, which pretend to be comprehensive (and none of them really is), the nature of things is best illustrated by the one that determines that money laundering is a procedure that seeks to bring money coming from source A as if it came from source B (Katušić-Jergović, 2007).

The purpose of money laundering is to reduce or completely eliminate the risk of confiscation of illegally acquired funds and punishment for committed crimes. In cases when criminals possess illegally acquired funds, they are faced with the question of how to use the illegally acquired funds unhindered, without leaving any trace, which could indicate their criminal activity. In most countries, drug trafficking is a major source of illicit profits. According to some data, heroin is sold on New York's 115th Street for four hundred dollars in one minute, which amounts to ninety-six thousand dollars a day, six hundred and seventy-two thousand dollars a week, while the annual income exceeds thirty billion dollars (Ignjatović, 2008). By including illegally acquired income in legal financial flows, not only undermines the economic and monetary system but also disrupts the political stability and security of the country and has an impact on social relations at the national and international level. Faced with the possibility of confiscating illegally acquired property,

detecting criminal activity, and punishing criminal organizations, groups and individuals "launder" their "dirty" money, integrating it into legal financial flows through a series of different financial transactions, using a wide range of money laundering methods. The methods of money laundering are constantly being adjusted and improved in relation to technical and technological progress and the development of economic relations at the national and international levels.

The problem of money laundering is faced by all modern countries, which imposes the conclusion that it is an international problem, which disrupts the normal course of foreign trade business and the implementation of the international financial system. Money laundering is more prevalent in those countries where there is a shortage of certain goods on the market, or where the tax burden is too high. It is characterized by great adaptability to changes in the market, both commodity and financial. This phenomenon represents an extremely great social danger because it can endanger the financial stability of a country. Observed from country to country, there are differences in the modalities and scope of money laundering, which are, above all, conditioned by the economic and political conditions in a given country. Due to the inadequate functioning of the legal order, countries in transition provide favorable opportunities for money laundering. In these countries, the relevant authorities are not fully able to adequately control certain activities that are suitable for money laundering and to establish the necessary safeguards. This is the case with our region, through whose territory, due to its geographical position, the roads of international criminal activities, such as trafficking in human beings, narcotics, weapons, etc., lead. There are various forms of money laundering. Knowledge of these methods is necessary for the competent authorities to take effective measures to detect and combat this phenomenon. This is achieved by planning illegality in order to increase wealth. Illegal business is a source of rapid accumulation of capital that is later invested in a legal business (Stanković, 2021). Money laundering is often carried out as part of organized crime when the organizers of these activities are people in "white collars", who belong to the ruling strata of society and have a significant influence on events in government and politics. Professional criminals connect to organize money laundering, creating groups, gangs, and other forms of association. They often have a foothold in the police, the judiciary, and among politicians. Money laundering organizers use the false presentation of financial situation, false final accounts, fictitious presentation of stocks of goods, and other illegal activities. Participants in money laundering use the knowledge of financial experts, so with the use of that knowledge, business and financial documentation is often falsified, which falsely shows the money acquired through illegal activities, in order to earn

that money as legally acquired and thus placed in domestic, or international business flows. In this way, money, which originates from illegal business and is, therefore "dirty", is "laundered" by subsequent illegal activities, which involve certain transactions, so that at the end of the cycle it appears as legal, i.e. "clean", and therefore usable for legal financial transactions in the market. Money laundering is deliberately complicated by their creators in order to make it harder to determine the path of documents that accompany money, i.e. to legalize the origin and ownership of the money in a more convincing way, by returning it to legal flows, even as taxable income. "Dirty" money can come from various illicit activities, such as: illicit production, illicit trade smuggling, tax evasion, espionage, abuse of office, etc. Practically, that money can come from all illegal activities in which illegal property gain is realized. Illegally acquired funds are often the result of the inefficiency of the public - undisguised and recorded economy, which gives way to the so-called gray economy. The gray economy is an illegal economic activity aimed at gaining economic benefits for the persons who perform it, to the detriment of the state and, as a rule, other persons who legally perform the activity. Large amounts of money and goods move in indigenous flows, almost completely without the possibility of a direct influence of state bodies, regardless of the fact that the state seeks to exercise control over these flows. Estimates of the size of the gray economy show that it represents a significant segment in national economies. Numerous data indicate that, not only is the gray economy relatively large in some countries but also that the dynamics of its growth is faster than the growth of public national economies (Kulić, 2005).

Criminals who have a large amount of money at their disposal can pretend to be individuals who want to reduce their tax liabilities, or want to remove their property, in order to avoid future taxation (Teofilović, Jelačić, 2006). Money laundering is a major threat to the integration of financial institutions, as legal entities are disadvantaged. The consequences of money laundering are multiple, and the damage inflicted on society in this way is large. Due to the fact that money laundering participants do not reinvest in activities with higher rates of return, but only where their origin will not be revealed, the consequences may be a decrease in monetary stability, due to inadequate allocation of funds, unexpected changes in money demand, exchange rate volatility, etc. At the same time, since money laundering participants are not interested in increasing profits, but in protecting and concealing the origin of funds, they often invest in less profitable investments, which may not be beneficial to a country, thus reducing its potential economic growth. For example, in many countries, activities in certain economic areas, such as construction and hospitality, were financed, but not because of real demand, but because of the short-term interests of money launderers. When these areas no longer suit the actors of money laundering, they leave them, causing great losses, economic disruption, and instability. In this way, money laundering leads to the increasing criminalization of society, because at the very beginning the impression is created that the country is advancing so that money launderers will soon gain reputation, wealth, and power and try to take control of the entire financial system. "Dirty" money enables the involvement of criminal organizations in legal economic activities and corruption of government bodies. This conceals criminal activity and the nature, origin, and existence of illegally acquired funds, i.e. unhindered use of criminal profits are allowed. The consequence is the threat to the economic system and market competition, and the impact on economic, political, and social trends at the national and international level. By using legal business structures and accepting the rules of conduct in the business world, the structure of criminal organizations becomes similar to the structure of legal business entities. Often, legal business organizations are under pressure from the underground competition, forcing them to use illegal methods. It is a phenomenon of a symbiosis of organized crime with the crime of "white collar" and "criminal corporations".

STAGES OF MONEY LAUNDERING

Throughout history, money laundering has always reflected specific social and economic circumstances. This also applies to forms and methods of money laundering. Money laundering in modern conditions has acquired commercial forms, manifesting itself as an illicit "business" that causes great harmful consequences in some national economies (Kulić, 2010).

It is more present in those countries where there is a shortage of certain goods on the market, or where the tax burden is too high. It is characterized by great adaptability to changes in the market, both commodity and financial. Money is mostly laundered in developing countries. However, money laundering is present in every state. The development of technical achievements, as well as the processes of globalization and internationalization of the financialmarket system, have led to the internationalization of this activity. Rapid transfer of money across borders, weaknesses within national legislation, as well as differently regulated legislation of individual countries, contribute to increasingly complex forms of money laundering. The application of new electronic payment systems carries with it certain risks, which relate to the possibility of misuse of these systems for money laundering purposes. This phenomenon, among others, is influenced by market factors, which determine the appropriate supply and demand, both those goods that are in free circulation

and those whose trade is restricted or prohibited (weapons, narcotics, etc.). Money laundering is actually a process, not an individual act, in which many techniques are used. Most money laundering schemes are based on three common phases known as investment, concealment, and integration. However, it should be emphasized that this division into phases is of a theoretical nature and that in practice there are deviations from this model. These phases are not so clearly separated and recognizable in reality. This is important from the aspect of money laundering investigation because in each individual case the principle of individuality of individual cases of money laundering should be respected and, accordingly, measures should be taken to oppose money laundering. There are frequent cases when these phases overlap, so that in each of them "dirty" money is mixed with the legally acquired, and sometimes a phase is skipped, i.e. there are cases of money laundering where illegally acquired income does not go through all these phases. , which depends on many factors. It is not uncommon for large reputable financial systems (banks, insurance companies, etc.) or reputable individuals (lawyers, brokers, etc.), but also individual countries, to accept the provision of services to the criminal milieu related to money laundering, of course with a fee. This results in increased corruption, which, of course, generates the whole process anew.

a) Investment (placement) is the first phase, which is characterized by the severance of the direct link between the money and the illegal activity by which it was acquired. At this stage, illegally acquired money is included in legal financial flows, which can be done in different ways. This is most often done by depositing cash, obtained through illegal activities, into bank accounts, under the pretext that it is income derived from regular activity, within which payment is usually made in cash, such as, for example, catering, trade, and other similar activities. It is important that criminally acquired funds are injected into legal business flows. This is the most important stage for detecting dirty money, as it is then easiest to discover the nature and origin of the funds. Cash is usually used in criminal activities (whether in small amounts - in the street sale of drugs, prostitution, human trafficking, etc., or in larger amounts - such as in the sale of large quantities of drugs, weapons, corruption, robberies). High amounts of cash draw attention and arouse suspicion, so criminals try to turn it from one form to another as soon as possible, more suitable for further use. From the position of a criminal, this is also the riskiest phase, having in mind that according to the regulations of most countries, banks and other financial institutions are obliged to report every major transaction. When illegally acquired cash is mixed with legally acquired income, the possibility of detecting "dirty" money becomes more difficult. Large sums of money can be divided in smaller amounts and deposited in accounts in amounts that are less than the legal threshold, or that are not suspicious, or for which there is no obligation to report to the competent authorities. Cash can also be transferred to countries where the anti-money laundering system is inadequate and deposited there with financial institutions.

b) Concealment (stratification) is the second phase, which occurs after "dirty" money has entered the legal financial system. In this part of the process, an attempt is made to conceal the true origin of the funds, even the real owner of the money, with some (often very numerous) transactions, in order to trace the source and get the impression of anonymity. If this phase were viewed separately from the first, one would get the impression that it is a series of often individually legitimate transactions, which, however, have an illegal goal - to cover up an illegal source. At this stage, the movement of these funds often mixed with funds whose origin is legal, through the world financial system is realized. This is achieved by transferring money from the account to which it is paid, to other accounts around the world. Liberal banking systems are used for this purpose. Numerous transactions transfer money, and these transactions often do not make economic sense or business logic. The main goal of this phase of money laundering is to cover up the real sources of these funds, i.e. to cover up the connection between the money and the criminal activity from which it originates. In these transactions, the illusion is created that the transfer of money is made for the payment of goods or services abroad. That is why the persons who organize money laundering establish companies abroad that appear in the role of suppliers, and which issue false invoices to the company to which the "dirty" money has already been transferred. However, the delivery of goods or services does not occur at all, or it is performed in an inappropriate scope or quality. Only money "moves".

c) Integration is the last stage of the money laundering process, during which actors integrate their resources into the economy and the financial system, mixing them with legal means. "Dirty" money appears as money that originates from a legally permitted activity and is reintroduced into economic flows, where it can be freely spent and invested. Therefore, in the third phase, the money is returned to the legal monetary system, and it is disposed of as if it had been acquired in a permitted manner. This, of course, makes it difficult to discover the real source of money, which is the goal of the whole process. At this stage, criminals make decisions about reinvesting "dirty" money in the reproductive cycle of criminal activity or in legal investment – i.e. business conducted in accordance with regulations. It is necessary that part of the funds be spent on various personal spending of criminals. When money comes to this stage, it is

almost impossible to discover its illegal origin.

The following money laundering methods are the most popular at this stage of the process:

1. the establishment of anonymous companies in countries where secrecy is guaranteed. Then the launderers can give themselves loans from laundered money during a future legal transaction, whereby they can increase their income, in connection with which they will ask for a tax deduction due to the repayment of the loan, and they will charge interest on the loan;

2. sending fake export-import invoices in which the goods are overvalued, which enables the money launderer to transfer money from a company in one country to another company in another country, and the invoices are used to prove the origin of the money, and

3. transferring money to a legitimate bank from a bank owned by a money launderer, as such dubious banks can easily be bought in many countries that have the status of a "tax haven" (Katušić-Jergović, 2007).

Revenues from economic crime are skillfully channeled through national and international financial systems, which are effectively collapsing. The economic and social consequences in countries in transition are particularly significant. Their markets are usually small and more susceptible to disturbances that can occur as a result of criminal activities. Their vulnerability is more pronounced due to: insufficiently built institutions of the economic and financial system; ignorance of financial institutions to apply measures to identify and prevent the concealment of the origin and investment of criminal profits; a low degree of implementation of measures for the suppression of organized crime, or their insufficient or selective implementation; ineffective penalties, including legal provisions for confiscation of ill-gotten gains, which are difficult to enforce, as well as the low level of training and expertise of the authorities responsible for combating economic crime, which are often underdeveloped (Bartlett, 2002).

MONEY LAUNDERING TECHNIQUES

Money laundering involves a variety of techniques that are usually complex, well thought out, and secret. These techniques change frequently. Money laundering methods and techniques are changing in response to countermeasures taken in recent years. Increasingly sophisticated combinations of money laundering techniques are being introduced, such as the increasing use of legal entities to conceal real property and control illicit income, and the increasing use of certain professions to provide advice and assistance in laundering proceeds of crime. Which techniques will be used in a particular case often depends on the requirements of criminal organizations (Gilmor, 2004).

One of the first money laundering techniques was discovered and developed by Meyer Lansky (called "mafia accountant"), taught by the example of Al Capone, taking advantage of a large number of Swiss bank accounts. Lansky was the first to use the socalled concept of loan repayment, according to which illegally acquired money can be displayed and disguised through loans granted by foreign banks, which can be shown as taxable income. The most commonly used money laundering techniques are:

1) construction of the deposit;
2) use of overseas banks;
3) use of underground (alternative) banking;
4) establishment of fictitious companies;
5) investing in legal businesses;
6) use of financial markets;
7) use of correspondent banking;
8) when providing assistance and giving donations from abroad;
9) using the Internet, and other ways.

THE FINANCIAL INTELLIGENCE UNIT (FID) IN BOSNIA AND HERZEGOVINA

The Financial Intelligence Unit (FID) of the State Investigation and Protection Agency (SIPA) is the central financial intelligence unit in Bosnia and Herzegovina (BiH) that operates in accordance with international standards in the field of combating money laundering and terrorist financing. The Law on the State Investigation and Protection Agency and the Law on Prevention of Money Laundering and Financing of Terrorist Activities stipulate that the FID performs activities related to prevention, detection and research of money laundering and financing of terrorist activities, activities related to promoting cooperation between competent authorities of the state, and also the Federation of BiH, Republika Srpska and the Brcko District of BiH in the field of prevention of money laundering and terrorist financing, as well as promoting cooperation and exchange of information with competent authorities of other countries and international organizations in charge of preventing money laundering and terrorist financing. The FID is also responsible for providing other bodies in BiH and abroad on its own initiative with appropriate data, information and documentation collected in accordance with the Law on Prevention of Money Laundering and Terrorist Financing, which it estimates could be important to these bodies in making decisions from their responsibilities in relation to the investigation of money laundering offenses, predicate offenses and the financing of terrorist activities. Also, the FID directly acts according to the orders and requests of the prosecutor's offices, both within the scope of competencies prescribed by the Law, and according

to the laws on criminal procedure. Data, information and documentation collected in accordance with the Law on Prevention of Money Laundering and Financing of Terrorist Activities are of an intelligence nature and are used for the purpose of prevention and detection of money laundering, predicate offenses and financing of terrorist activities. The FID also performs activities related to the representation of BiH in international bodies for the prevention of money laundering and terrorist financing, such as the leading role in the Delegation of Bosnia and Herzegovina to the Council of Europe's Committee of Experts on Evaluation of Money Laundering and Terrorist Financing (Moneyval). In addition to the above, the FID actively participates in activities to improve the fight against money laundering and terrorist financing by participating in projects, training of taxpayers on the Law on Prevention of Money Laundering and Financing of Terrorist Activities and training of officials in BiH. The primary task of the FID, in accordance with the Law on Prevention of Money Laundering and Financing of Terrorist Activities, is to receive, collect, record and analyze information, data and documentation, as well as research and forward the results of analyzes and / or investigations to competent prosecutor's offices and others to the

competent authorities investigating criminal offenses of money laundering and / or financing of terrorist activities in BiH and abroad, is realized through the mandatory submission of data on various types of transactions by a number of institutions.

Pursuant to the Law on Prevention of Money Laundering and Financing of Terrorist Activities, commercial institutions operating in the financial and non-financial sector are obliged to implement measures to detect and prevent money laundering and terrorist financing. As part of these measures, they are obliged to submit reports to the FID on:

- suspicious transactions or persons;
- cash transactions whose value amounts to or exceeds the amount of 30,000.00 KM;
- related cash transactions whose total value is or exceeds the amount of 30,000.00 KM.

A suspicious transaction is any transaction for which the obligor or the competent authority estimates that in connection with the transaction or the person performing the transaction there are reasonable grounds for suspicion or suspicion of committing the crime of money laundering or terrorist financing, or that the transaction involves funds derived from illegal activities.
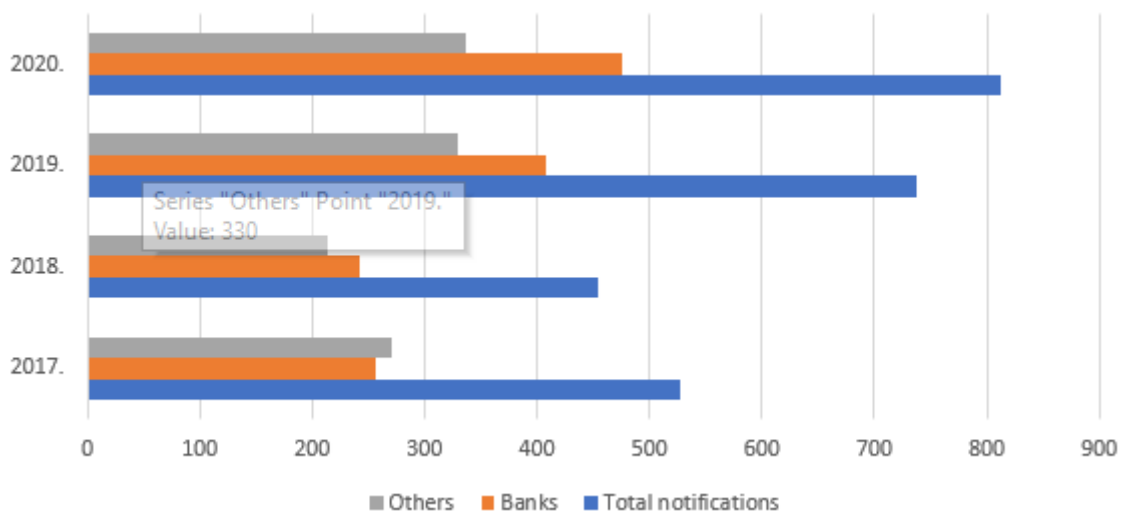
Analysis of suspicious transactions in Bosnia and Herzegovina from 2017 to 2020

We analyzed the state of suspicious transactions in Bosnia and Herzegovina in the period from 2017 to 2020. It can be seen from the graph that there is a trend of increasing the total notifications of suspicious transactions submitted to the FID. Banks had the most significant share in reporting transactions due to the dominant role of banks in the financial services sector in BiH. Of the other taxpayers, notaries, car dealerships, stock exchanges, post offices, microcredit foundations, bookmakers and other entities had the most significant share in reporting transactions.
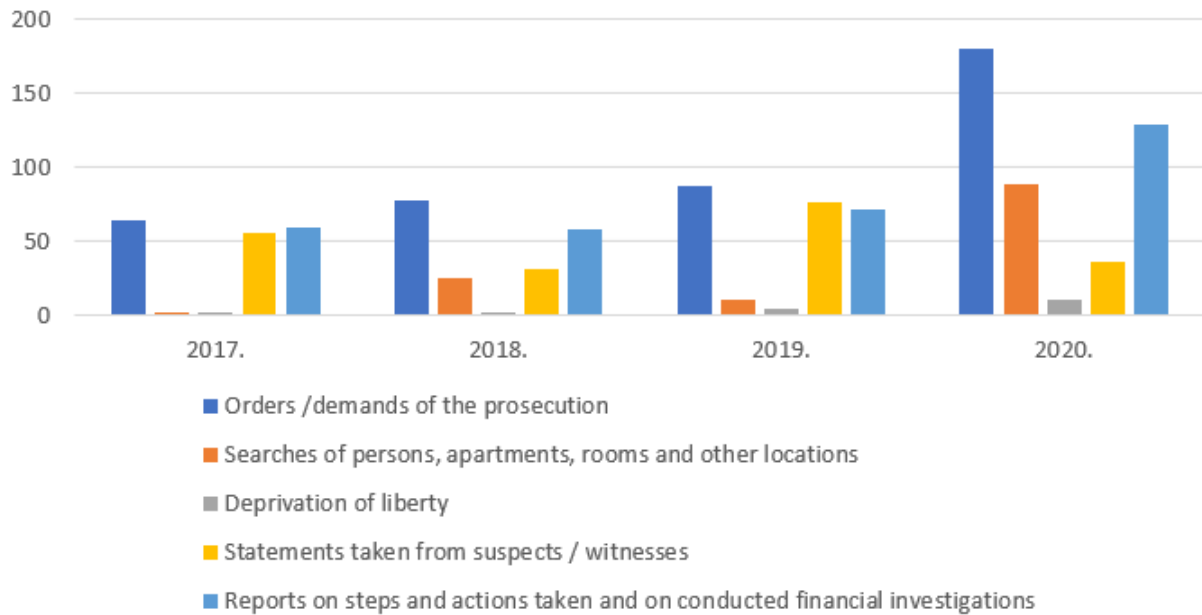
Investigative activities of the FID

The chart shows the analysis of FID activities in the period of 4 years, where there is an increase in orders or requests from the prosecution that the FID acted. In relation to this number of orders and requests, very few searches of persons, apartments, other premises and movables were carried out, as well as deprivation of liberty, but there is a sharp increase in that number in 2020.

During the implementation of the above orders and requests, the FID prepared and submitted to the competent prosecutor's offices reports on measures taken and actions and reports on conducted financial investigations, the number of which is also growing from year to year.

Money laundering also poses a threat to the integrity of the state, while the most fertile ground for these activities are underdeveloped countries, but also countries in transition. Thus, money laundering undermines the basic principles of the market but also increases the political instability of the country, then the international image of the country is damaged, and such a country becomes unattractive for investment. There are no reliable methods for estimating the value of "laundered" money. It is estimated that from 300 to 1000 billion dollars are laundered annually in the territory of the USA alone. Estimates for Bosnia and Herzegovina say that about $ 700 million is laundered annually.

CONCLUSION

Detecting suspicious money laundering transactions is not easy every time. It is very difficult to analyze the financial statements to find that some transactions have no purpose or meaning. In any case, when money laundering is suspected, forensic scientists can use digital analysis techniques to detect unusual transactions and unusual amounts, which are then checked in detail by direct inspection of the documentation. Today, no country has been spared from money laundering, which is also a global problem.

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COMPARATIVE ANALYSIS OF THE SECTOR COMPATIBILITY OF THE ECONOMY OF BOSNIA AND HERZEGOVINA AND THE EUROPEAN UNION IN THE FUNCTION OF THE CONVERGENCE OF BOSNIA AND HERZEGOVINA ACCORDING TO EU

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Abstract

The problem encountered by transition countries or developing countries, such as Bosnia and Herzegovina, in the process of European integration, requires a certain degree of sectoral harmonization of its economy with the European Union economy in the function of convergence towards the EU at the macroeconomic level.
The aim of this research is to problematize the importance of meeting the conditions and criteria of convergence for joining the European Union, by analyzing the sectoral compatibility of the economy of Bosnia and Herzegovina with the economy of the European Union, using the comparative analysis method. In the continuation of the paper a comparative analysis of the economic structure of Bosnia and Herzegovina and the economy of the European Union will be presented, with a view to determining their structural coherence.
The application of the Krugman specialization index and the Balassin specialization index will result in a clearer and more transparent comparative analysis of the structural coherence of the B&H economy with respect to the European Union's economy.

Keywords: comparative analysis, economic policies, macroeconomic indicators, Krugman specialization index, Balassin index of specialization, Bosnia and Herzegovina, EU.

INTRODUCTION

The problem of European integration faced by developing countries, such as Bosnia and Herzegovina, results in a reduction in the dynamics of the sector's approach to European integration. The internal functioning of countries through improper management of economic policies, insufficient independence in the direction of management and decision-making, failure to meet deadlines, leads to negative consequences in the integration process for individual countries. Bosnia and Herzegovina's entry into European integration requires meeting the convergence criteria, with the aim of reducing disparities between economies, i.e. it is necessary to determine the degree of relative specialization of relations between economies at the bilateral level. The aim of the research on sectoral harmonization of economies at the bilateral level of Bosnia and Herzegovina and the EU 28 and EU 15 is to investigate in which field of sectoral harmonization, and by applying comparative analysis of Balassa index and Krugman index of specialization, we can answer the

question of is Bosnia and Herzegovin „keeping pace", in parallel with the development of individual sectors of the EU 28 and EU 15. Balassa index and Krugman index as measures of relative specialization, make the result simpler and more transparent compared to other specialization indices.

CONVERGENCE CRITERIA

The convergence criteria defined and established by the Maastricht Treaty aim to approximate and harmonize the monetary and fiscal policies of individual countries to the European Union. The Maastricht Treaty defines the criteria of convergence, and we know that the term convergence means mutual convergence, the approximation of the variables of individual countries to a particular goal. The purpose of the convergence criteria is to harmonize the monetary and fiscal criteria of individual countries, according to the criteria set out in the Maastricht Treaty. In order for a country

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to be part of the European Union, ie the European Monetary Union (EMU), it must meet the convergence criteria in order to be ready for the euro. Many countries, especially developing countries, have a problem maintaining the convergence criteria, e.g. Greece, Italy and Portugal have trouble maintaining convergence, although they have managed to meet nominal criteria. (Kandžija, Cvečić, 2008: 195) The third phase of accession to the European Monetary Union obliges future members to meet the following criteria of nominal convergence before the introduction of the euro:

1. High degree of price stability; the inflation rate must not exceed 1.5% of the inflation rate of the three most stable EU Member States;
2. The budget deficit may not exceed 3% of GDP and the public debt may not exceed 60% of GDP;
3. Participation in the European Monetary System for at least two years; nominal long-term interest rates may not exceed 2% of the interest rates of the three EU Member States with the lowest inflation rate (Directorate for European Integration: 2019).

The convergence criteria known as the Maastricht nominal convergence criteria include both monetary and fiscal policy criteria. Monetary criteria price stability and interest rates and fiscal criteria public debt and budget deficit. Many theorists believe that nominal convergence is not enough to enter the eurozone, but also real convergence. In addition to the criteria of nominal convergence, the country is obliged to meet the criteria of real convergence, which simultaneously encourages economic development, approaching the level of development of transition countries to developed countries of the European Union. Unlike nominal convergence, which can be achieved in an administrative way in the short term, real economic convergence is achieved in the long run through the process of implementing appropriate economic policy, structural reform and economic institutionalization. This is monitored by indicators such as GDP per capita, average wage level, purchasing power parity, income distribution, unemployment rate, labor productivity, real exchange rate and price ratio of domestic and foreign goods, share of agriculture in GDP, employment structure, balance and structure of foreign trade, etc. (Marić, 129). Meeting the criteria of nominal and real convergence for joining the euro area are not fully sufficient, so the country is obliged to meet the criteria of structural convergence in addition to the criteria of real and nominal convergence. Structural convergence criteria include:

1. Real and financial openness
2. Mobility of factors of production
3. High share of mutual trade (between EU countries and transition countries)
4. Similarities of economic structures of countries (Bilas: 224)

The structural convergence established by the Maastricht Treaty sets out the convergence criteria, which apply to all countries of the European Union but also to future members of the European Union. The criteria refer to the openness of the economy, but also to the approximation of the economic structure to the European Union, in order to reduce disparities and approximate variables to the European Union. Bosnia and Herzegovina, as a country in transition, largely does not meet the criteria of structural convergence. According to the mobility of capital and labor production factors, Bosnia and Herzegovina lags behind highly developed countries. It records a large outflow of labor, measured by the migration coefficient, the share of foreign direct investment in GDP is not satisfactory, and funds are used for non-purpose purposes, which in the long run reflects the slowdown in economic growth and economic development.

COMPARATIVE ANALYSIS OF SECTORAL COMPLIANCE OF THE ECONOMY OF BOSNIA AND HERZEGOVINA AND THE EUROPEAN UNION

After the previous part of the paper presents the convergence criteria, which aim to reduce the diversity of economies within the European Union, ie reduce sectoral (in) harmonization of economies and thus contribute to reducing disparities, in order to determine the level of specialization and comparative analysis of sectoral harmonization of Bosnia and Herzegovina and the European Union, two specialization indices will be used, namely the Krugman and Balassin specialization index. Specialization indices will use data for the analysis of sectoral compliance, which are publicly available on the website of the Agency for Statistics of Bosnia and Herzegovina and Eurostat for the European Union for the period 2015.- 2017. year.

Determining the structure of the sector in order to determine the index of specialization takes into account the qualification of activities in B&H 2010 and NACE 2. The goal of qualifying activities through NACE, as a statistical qualification of activities within the EU is the basis for collecting a large number of statistics, at the level of the world economy.

The development of NACE dates back to the 1970s, during which, as a certain statistical qualification, it was upgraded and in parallel followed the process of globalization. In relation to the EU area, there are various other qualifications, both at the international (world) and national level, as shown in Figure 1. Statistics Division of the United Nations Qualifications.
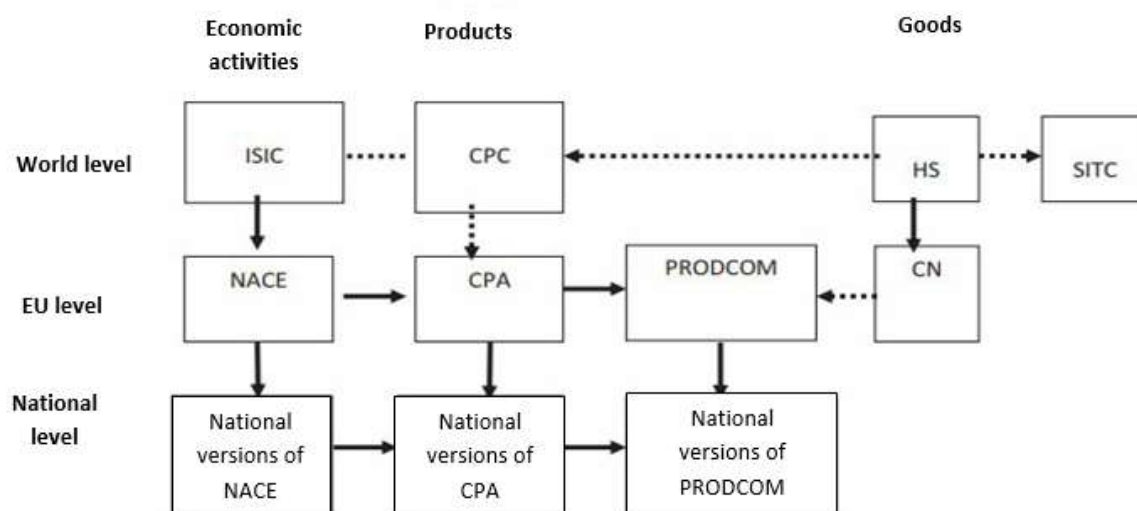
Picture 1. United Nations Statistics Qualifications Division

Source:http://dissemination.bhas.ba/classifications/kd/KDBIH_2010_EU_NACE_h.pdf(accessed 10.02.2021.)

KRUGMAN SPECIALIZATION INDEX

The new economic geography links the time of the beginning of the development of the study and the expansion of activities to the beginning of the 1990s. Paul Krugmann appears as one of the main pioneers of the new economic geography. The two main assumptions of the new economic geography model on which the mission rests are the freedom of choice of consumers and the aspiration of economies of scale.

Specialization index according to Paul Krugmann formulated by calculating the percentage of sector A in the total gross value added of country "x" presented in Table 1 and the percentage of activity A, in the total gross value added of country "y" presented in Table 1 .

By the sum of the absolute value of the difference of all sectors, we come to the distance of the sector of country "x" in relation to the sectors of country "y". The value of the calculated coefficient 0 means that country "x" has a similar sector structure in relation to country "y", country "x" tends to converge the sector in relation to country "y", while higher values indicate the degree of divergence, country "x" in the structure sector and ultimately output..

According to the presented data in Table 2, it is evident that the economy of Bosnia and Herzegovina, according to the criterion of specialization Krugman index, using the method of comparative analysis of B&H, EU 28 and EU 15, results in divergence and heterogeneity within the economy at higher levels of aggregation..

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COMPARATIVE ANALYSIS OF THE SECTOR COMPATIBILITY OF THE ECONOMY OF BOSNIA AND HERZEGOVINA AND
THE EUROPEAN UNION IN THE FUNCTION OF THE CONVERGENCE OF BOSNIA AND HERZEGOVINA ACCORDING TO EU

Numbr.	ISIC Rev. 4/ NACE Rev. 2 Areas		2015.	2016.	2017.
BOSNIA AND HERZEGOVINA					
1.	A	Agriculture, fisheries and forestry	6,24	6,37	5,61
2.	B -E	Mining, manufacturing, production and supply of electricity, water supply	18,6	19,23	19,9
2a.	C	Manufacturing	11,67	12,37	13,12
3.	F	Construction	3,93	3,94	4,04
4.	G - I	Wholesale and retail trade, transport and storage, accommodation and food service activities	18,98	19,06	19,77
5.	J	Information and communication	4,60	4,38	4,24
6.	K	Financial and insurance activities	3,75	3,74	3,88
7.	L	Real estate business*	5,02	4,92	5,12
8.	M,N	Professional, scientific, technical, administrative and support service activities	3,61	3,73	3,58
9.	O -Q	Public administration, defense, education, health care and social work	17,99	17,16	16,54
10.	R - U	Other services	2,29	2,49	2,6
EU 28					
1.	A	Agriculture, fisheries and forestry	1,6	1,6	1,7
2.	B -E	Mining, manufacturing, production and supply of electricity, water supply	19,4	19,5	19,6
2a.	C	Manufacturing	16,0	16,3	16,4
3.	F	Construction	5,3	5,3	5,4
4.	G - I	Wholesale and retail trade, transport and storage, accommodation and food service activities	18,9	18,9	19,1
5.	J	Information and communication	5,0	5,0	5,0
6.	K	Financial and insurance activities	5,3	5,2	4,9
7.	L	Real estate business*	11,5	11,3	11,2
8.	M,N	Professional, scientific, technical, administrative and support service activities	10,9	11,0	11,1
9.	O -Q	Public administration, defense, education, health care and social work	18,7	18,7	18,5
10.	R - U	Other services	3,5	3,5	3,5
EU 15					
1.	A	Agriculture, fisheries and forestry	1,4	1,4	1,5
2.	B -E	Mining, manufacturing, production and supply of electricity, water supply	18,8	19,0	19,1
2a.	C	Manufacturing	15,6	15,8	16,0
3.	F	Construction	5,2	5,2	5,3
4.	G - I	Wholesale and retail trade, transport and storage, accommodation and food service activities	18,6	18,6	18,8
5.	J	Information and communication	5,0	5,0	5,0
6.	K	Financial and insurance activities	5,4	5,2	5,0

7.	L	Real estate business*	11,8	11,7	11,6
8.	M,N	Professional, scientific, technical, administrative and support service activities	11,2	11,3	11,4
9.	O -Q	Public administration, defense, education, health care and social work	19,1	19,1	18,9
10.	R - U	Other services	3,6	3,6	3,6

Source: Author's processing according to:http://www.bhas.ba ; https://ec.europa.eu/eurostat? (accessed 10.02.2021.)

Table 1. Share of individual sector of the economy (%) in total gross value added for the period 2015-2017.

DISTANCE	2015.	2016.	2017.
B&H / EU 28	19,34	18,91	17,87
B&H / EU 15	18,99	18,61	18,20

Source: Author's processing

Table 2. Distance of the economy of Bosnia and Herzegovina using the Krugma specialization index

Ballasin Specialization Index

Ballasin Ballasin's indices of specialization originate and develop back to 1965 and the founder of Bela Balass, whose purpose is to determine the comparative advantage of country "x" over country "y". Over time, the development of economics in practice, the Balassa coefficient has, over time, depending on the subject of research, defined a different area of application but with the purpose of determining comparative advantages. Putting the percentage of sector A in the total gross value added of country "x" in relation to the percentage of sector A in the total gross value added of country "y". The value of index 1 implies the same share of value added of the sector in total value added, a value greater than 1, indicates the specialization of the sector of country "x" in relation to country "y", and ultimately a value less than 1 indicates a lack of specialization in each sector, and which results in the divergence of the country sector "x" in relation to country "y". According to Table 3, the Balassin index of specialization of BiH in relation to the EU 28 and EU 15 countries, reflect higher values of the coefficient in the agricultural sectors, which is shown in sectors A.

What stands out looking at the ratio B&H / EU28 and B&H / EU 15 is higher coefficient of specialization in sectors A-agriculture, fisheries and forestry, and in sectors GI - wholesale and retail trade, transport and storage, accommodation and food preparation and serving activities, and looking at a smaller area of research, ie B&H in relation to the EU 15 .The sectors that record the growth of specialization and comparative advantage also record the largest number of employees in total value added in the observed period, which is recorded as one of the main criteria of structural convergence.

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BOSNIA AND HERZEGOVINA / EU 28			2015.	2016.	2017.
1.	A	Agriculture, fisheries and forestry	3,90	3,98	3,30
2.	B -E	Mining, manufacturing, production and supply of electricity, water supply	0,95	0,98	1,01
2a.	C	Manufacturing	0,73	0,75	0,80
3.	F	Construction	0,74	0,74	0,74
4.	G - I	Wholesale and retail trade, transport and storage, accommodation and food service activities	1,00	1,00	1,03
5.	J	Information and communication	0,92	0,87	0,84
6.	K	Financial and insurance activities	0,70	0,72	0,79
7.	L	Real estate business*	0,43	0,43	0,45
8.	M,N	Professional, scientific, technical, administrative and support service activities	0,33	0,33	0,32
9.	O –Q	Public administration, defense, education, health care and social work	0,96	0,91	0,89
10.	R - U	Other services	0,65	0,71	0,74
BOSNIA AND HERZEGOVINA / EU 15			2015.	2016.	2017.
1.	A	Agriculture, fisheries and forestry	4,45	4,55	3,74
2.	B -E	Mining, manufacturing, production and supply of electricity, water supply	0,99	1,01	1,04
2a.	C	Manufacturing	0,74	0,78	0,82
3.	F	Construction	0,75	0,75	0,76
4.	G - I	Wholesale and retail trade, transport and storage, accommodation and food service activities	1,02	1,02	1,05
5.	J	Information and communication	0,92	0,87	0,84
6.	K	Financial and insurance activities	0,69	0,72	0,77
7.	L	Real estate business*	0,42	0,42	0,44
8.	M,N	Professional, scientific, technical, administrative and support service activities	0,32	0,33	0,31
9.	O -Q	Public administration, defense, education, health care and social work	0,94	0,89	0,87
10.	R - U	Other services	0,63	0,69	0,72

Source: Author's processing

Table 3. Ballasin Specialization Index

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CONCLUSION

According to the presented results, when observing the evolution of the distance of the economy of Bosnia and Herzegovina in relation to the economy of EU 28 and EU 15, is the degree of divergence of the economy of Bosnia and Herzegovina in relation to other economies. Krugman's index of specialization shows that there is a great deal of diversity in the economy. In the total GDP and according to the number of employees in certain sectors, the processing industry and wholesale and retail trade occupy the largest item, which in relation to other sectors of the economy records a larger share in the total GDP, and which ultimately differs from the structure the economy of the European Union, as one of the indicators of structural convergence.

The structure of the representation of each sector in the total GDP differs greatly in the European Union in relation to developing countries such as Bosnia and Herzegovina, which results in a lower degree of specialization, divergence of variables of individual economies, and ultimately a review of whether and to which the way a country's economy works, and whether the country is moving in the right direction (EU integration) in the context of rethinking its mission and vision.

The importance of the functioning of countries in the process of integration towards the European Union, determines the direction and speed of countries moving towards EU integration. Consequently, legal and institutional arrangements with their characteristics and positive effects result in the functioning of an individual country in the process of integration. The harmonization of a country in the external domain is not possible without proper internal organization, which explicitly affects the external organization, and ultimately it is a crucial characteristic of a country in the process of structural and real convergence and integration with the European Union.

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THE MARKETING POTENTIALS OF SOCIAL ROBOTS:
A LITERATURE REVIEW

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Abstract

During the past two decades, technological advances led to the development of various internet-based technologies and platforms with a certain level of automated interaction with users. Furthermore, thanks to the learning process, these technological platforms gain a certain level of autonomy and (artificial) intelligence. A combination of internet-based technologies, advanced algorithms and contemporary hardware resulted in the concept of social robots. Social robots co-create value through interactions with humans as fully or partially automated technologies. Social robots came in many flavours – virtual or embodied. The simplest form is represented by various types of robotic toys, while more complex representatives can offer their respective services in homes, the entertainment industry, the service sector and healthcare. The aim of this paper is twofold. First, this paper investigates the available literature and research studies on social robots and potential marketing applications primarily within the service industry. With the further improvement of the interaction with humans and more humanlike appearance, social robots can potentially excel in roles where service quality significantly relies on the skills and motivation of a service provider. Repetitive and dull activities, such as taking orders at the drive-in, can drain energy and motivation from a person. On the other hand, social robots would perform such tasks without any deviations in behaviour. In some countries, the service industry faces challenges, such as trained staff shortages and a relatively long training process for newly appointed employees. Therefore, we can expect businesses to look for different types of solutions. However, the actual commercial value of social robots will ultimately depend on the preparedness of customers to accept service from a social robot as an alternative to human service. Additionally, the employees' willingness to accept robotic co-workers is also important from the perspectives of a new technology adoption. Finally, this paper aims to detect and describe potential routes for further research on this topic.

Keywords: social robots, service industry, marketing, artificial intelligence, literature review

INTRODUCTION

The concept of robotics can be rooted in the ancient world, where persons with appropriate technical skills managed to animate various statues, commonly for religious ceremonies (Maspero, 2020). Another ancient example is the Antikythera mechanism discovered in a shipwreck, which provided accurate calculations of the planetary locations and dates of Olympiads (Moran, 2018). Besides numerous attempts throughout history to create automated mechanisms and human-like machines, artistic imagination shaped the technological development of robots during the past century. At the beginning of the 20th century, Baum (1900) introduced a fictional character Tin Woodman in his children's novel "The Wonderful Wizzard of Oz". Their human parts were replaced with prosthetics made of tin after he suffered repeated injuries while chopping. The term 'robot" appeared for the first time in Karel Capek's satire 'R.U.R.: Rossum's Universal Robots' in 1920, where all the hard manual labour was conducted by manufactured biological beings (Moran, 2007). In 1942, a science fiction writer Isaac Asimov presented the Three Laws of Robotics (or Asimov's Laws) in his short story 'Runaround', which was later included in his collection 'I, Robot' (Asimov, 1950). In a nutshell, these laws were intended to prevent robots from harming human beings and were commonly referred to in many books and movies. Besides the fictional development of humanoid robots, engineers put their effort into developing industrial robots. In 1956, Joseph F. Engelberger, 'Father of Robotics', began the development of an industrial robot that

was five years later installed on a die-casting line at General Motors (Waurzyniak, 2011). The numerous applications of robots within the industrial context brought many advantages, such as increased efficiency, lower production cost and protection of workers from hazardous influences of the production process. While being spearheaded by fiction writers, the development of human-like robots started in the 1970s in Japan, where several universities dedicated significant resources in this field. In 1973, Tokyo's Waseda University scientists unveiled WABOT-1, the world's first full-scale humanoid robot that was also described as 'intelligent'. However, it had limited capabilities to move, perceive its environment and grab things (Ichbiah, 2005). Thanks to its ties with academia, the Japanese industry also initiated research and development of humanoid robots, resulting in multiple models, such as Honda's P2, P3 and ASIMO, or Sony's Dream Robots.

In the past two decades, the development of various types of robots additionally flourished due to the technical advances and various levels of integration with the internet and the development of artificial intelligence. The development of semi-autonomous robots went in two main directions. On one side, there are robots developed to enter our homes and lives to take several assistive roles, such as house cleaning or car driving. For example, in 2002, the iRobot company commercialised Roomba, its first robotic vacuum cleaner (iRobot, 2021). In the mid-2000s, the first versions of autonomous driving cars appeared, initiating further development in the following decades by both traditional car manufacturers and newcomers in the industry, such as Tesla and Apple (Hall, 2018). The second development direction comprises social robots developed to provide verbal and nonverbal interaction with humans. In 1993, the Japanese AIST (National Institute of Advanced Industrial Science and Technology) developed Paro, a therapeutic robot baby harp seal, which was publicly presented in 2001 (Walton, 2003). Mimicking an animal, Paro was designed to provide pet therapy for older people with dementia (Hung et al., 2019). In some cases, these robots are developed in a human-alike form or as humanoids. One of the high-profile developments in this area is the Sophia-robot, introduced in 2015 by the Hong Kong-based Hanson Robotics. Interestingly, the Sophia-robot even received Saudi Arabian citizenship in 2017, which was more a marketing stunt than an official recognition of the robot's personhood (Reynolds, 2018). In recent years, the increased pace of adoption of robotic technology within the service sector seems to be caused by COVID-19 pandemic (e.g., Tung, 2020; Zeng et al., 2020).

This paper aims to investigate the available literature to detect the potential of social robots for marketing applications, beyond their primary functions within healthcare and acting as a technological research platform. Since social robots are capable of interacting with humans, there is particular potential for their introduction within the service industry. Nevertheless, social robots can partially replace staff in dull and repetitive jobs (e.g., taking orders at a drive-in) or improve the service quality when a well-skilled and motivated staff is not available. Set-up with appropriate behavioural algorithmics, social robots would be capable of providing these kinds of tasks at a pre-set quality level and without any deviations in behaviour. Furthermore, this paper also aims to detect specific research subareas within the marketing theory framework to provide viable future research guidelines.

DEFINITION AND CHARACTERISTICS OF SOCIAL ROBOTS

According to ISO 8373, a robot is an "actuated mechanism programmable in two or more axes with a degree of autonomy, moving within its environment, to perform intended tasks. ISO distinguishes industrial and service robots. While former are described as "automatically controlled, reprogrammable, multipurpose manipulator, programmable in three or more axes, which can be either fixed in place or mobile for use in industrial automation applications", the later are defined as robots "that performs useful tasks for humans or equipment excluding industrial automation applications". Broadly, social robots can be considered part of the service robots' family. However, social robots are explicitly developed for interaction with humans and to be capable of a human-like interaction (Hegel et al., 2009).

Social robots can be defined as robots that can interact with both humans and other robots in a socially acceptable way, which means that a social robot should convey another side that has beliefs, desires and intentions (Breazeal and Scassellati, 1999; Daily et al., 2017). Technically speaking, social robots can be considered as pieces of hardware containing various sensors collecting data from the environment. These mechanisms provide them with different types of movements, together with the "brains" in the form of artificial intelligence (AI) that is capable of processing data and making decisions that result in actions (Mokhtar, 2019). However, social robots distinguish from similar electronic devices with the capability to communicate and interact with humans emotionally (Darling, 2013).

Caic et al. (2019, p. 463) defined social robots as "fully or partially automated technologies that co-create value with humans through their social functionalities". While most definitions refer to social robots as physical devices, this definition emphasizes the ambiguous nature of social robots and their existence in both physical and digital environments. According to the recent research studies (Caic et al., 2019; Caic et al., 2018; Broadbent, 2017; Lee et al., 2016; Paauwe et al., 2015; Broadbent et al., 2017;

Fong et al., 2003; Ziemke, 2003), social robots share the following four distinctive design characteristics: embodiment, morphology, autonomy and assistive role.

Embodiment. Social robots appear either as physically embodied robots or in virtual or digital format, such as chatbots or virtual avatars. The development of social robots in their virtual for focuses on AI since their interaction is limited to verbal communication, sounds and visuals. Physically embodied robots are complex for development. They have specific physical appearance and movement capabilities, paired with sensors, processing software and AI.

Morphology. We can distinguish between humanoid and non-humanoid social robots in terms of their appearance. Humanoid social robots interact with humans in a human-like way, appear in either physical or digital form, and demonstrate a certain level of autonomy (Zhao, 2006). In order to facilitate social robots' integration into society, scientists are humanizing their appearance, so some robots feature faces capable of imitating human expressions (Cai, X. et al., 2020). Non-humanoid social robots interact with and respond to users through spatial, physical and robotic features, either virtually or physically (Mokhtar, 2019). This type of robot interacts through movements, sounds and lights. As Fong et al. (2003) suggested, physically embodied robots range from machine-like to human-like (humanoids) and appear in several formats or types: anthropomorphic (human-like), zoomorphic (animal-like), caricatured (cartoonish) and functional (an appearance that is in line with the robot's base functionality). Overall, people prefer robots that are more human-like. However, if the resemblance to humans is too high, people tend to develop repulsion towards the robot.

Autonomy. With the development of software algorithms and AI, social robots gained certain levels of autonomy. Fully autonomous robot functions without human instructions and interventions, basing their actions on the data collected from the interaction with their environment (ICRC, 2019). On the opposite side, there are robots completely without autonomy, requiring remote control. Full autonomy requires applications advanced technologies, such as different types of environmental sensors, perception, navigation, speech synthesizer, decision making AI and even self-maintenance and repair capabilities (Rau et al., 2013; Rau and Li, 2010; Lin et al., 2009; Powers and Kiesler, 2006). However, due to the current state of technical development, robot autonomy is still limited. According to recent reports (Badue et al., 2021; Yurtsever et al., 2020), it seems that the development of fully autonomous robots is the most progressed in the area of self-driving vehicles, although there is still a vast number of technological issues that require improvement and solutions.

Assistive role. With the ageing population in the western world, there is a growing demand for different types of assistance for senior citizens (Broekens, Heerink and Rosendal, 2009). In general, social robots with the assistive role can be broken down into two main categories: service type and companion type (ibid). However, social robots such as Aimo is usually considered as a companion type but can also be programmed to the assistive role (Bartlett et al., 2003).

To be capable of an assistive role, a social robot requires high cognitive and affective capabilities (Caic et al., 2019). In other words, social robot technology should be advanced enough to feature the aforementioned capabilities.

HUMAN-ROBOT (HUMANOID) INTERACTION AND USER ACCEPTANCE OF NEW TECHNOLOGY

According to Goodrich and Schultz (2007, p. 1), human-robot interaction is "a field of study dedicated to understanding, designing, and evaluating robotic systems for use by or with humans". Human-robot communication and interaction can occur in two primary contexts: (1) remote interaction – parties are separated and thus not sharing space or even time; (2) proximate interaction – parties share space and interact in proximity (Goodrich and Schultz, 2007). In the early days of systematic research, the human-robot interaction studies mainly were focused on the industrial environment and dominated by laboratory studies (Jung and Hinds, 2018). With the development of various robots within the non-industrial context, the research focus also extended on developments in the field of robot assistants and social robots.

Nevertheless, popularity and market acceptance depend on social robots' human acceptance. Although the concept of robots has been part of popular culture for decades, the social robot's integration is still hindered by various limiting factors. Nevertheless, social robots are still considered a relative novelty. First of all, the robot's physical appearance may discourage its acceptance by a human counterpart. One strategy to tackle this issue is to develop anthropomorphic (human-like) designs and human social characteristics, which implies a human-like robot's physical shape and human-like verbal and non-verbal communication (Fink, 2012). The main idea behind this concept is to achieve a stage where humans will interact with robots in the same way they interact with other humans (Fong et al. 2003, Yan et al., 2013). Following a similar idea, Hameed et al. (2016) suggest that the adoption rate of social robots may be influenced by factors such as the robot's function, the robot's social capabilities or skills (i.e., social intelligence and emotional expressions), and robot's physical appearance. Furthermore, the authors conclude that accepting a humanoid social robot depends on matching the robot's appearance and actions. In other words,

the robot's humanoid appearance will be more convincing if the designers will match physical appearance with intelligent interaction.

We can expect personal robots to become a part of people's everyday lives. Therefore, it is critical to understand and consider the factors that may increase acceptance and adoption when robots are designed and introduced. According to Graaf and Allouch (2013), the successful adoption of robots in a commercial context is related to the customer acceptance level of robots within their own homes. This acceptance level is positively affected by usefulness, adaptability, enjoyment, sociability, companionship and perceived behavioural control of a robot (Graaf and Allouch, 2013). In the context of human-robot interaction, researchers also detected trust as an essential factor. Groom and Nass (2007) pointed the importance of trust in a robot assistant or partner in the context of high-risk situations, such as combat missions. Chi et al. (2021) suggest three dimensions forming the user trust towards social robots in the case of service delivery: propensity to trust in robot; trustworthy robot function and design; and trustworthy service task and context. Echoing some previous studies (e.g., Merritt and Ilgen, 2008; Tussyadiah and Miller, 2019), the authors suggest a strong relationship between the propensity to trust toward a technology product and personal tendency to trust. Furthermore, as Chi et al. (2020) suggest, the trust toward robots can vary across different service contexts.

The human-robot interaction can also develop in unwanted and socially unacceptable ways. Brčić et al. (2015) report children's abuse of social robots using foul language and different obstructions of robots' activity. Since these practices can raise specific ethical concerns, Darling (2013) suggests extending legal protection to social robots, similar to how animal rights have been legally protected.

MARKETING POTENTIALS OF SOCIAL ROBOTS

When discussing marketing potential, we should distinguish between two types of social robots: digital or virtual robots and physically embodied robots. Different types of digital or virtual robots have become quite a standard technology over the past decade. On the other hand, psychically embodied social robots within the service delivery context (or service robots) are becoming increasingly common in recent years, with the explicit goal to replace or complement human service providers in numerous industries (McLeay et al., 2021; Wirtz et al., 2018).

Virtual social robots

Virtual social robots are a category of social robots in digital format that comprise different chatbots and avatars. Chatbots are digital agents that serve as natural user interfaces for data and service providers (Dale, 2016). For users, interaction with chatbots is utilized via the chat interface or by voice, mimicking the conversation with a real person. The term chatbot appeared in 1994 to describe a software system designed to simulate a conversation with the user in an intelligent way (Valtolina et al., 2018). From the commercial perspective, a chatbot can partially or fully replace human counterparts in the context of online customer service. In other words, if the user's problem is simple and ordinary, a chatbot may provide sufficient assistance. However, if the problem is more complex and unsolvable by the chatbot, a real person may step in and provide a higher level of customer support.

The first publicly known chatbot was ELIZA, developed in 1966 at the MIT Artificial Intelligent Laboratory by Joseph Weizenbaum (Weizenbaum, 1966). From the technological standpoint, ELIZA simulated conversations based on prewritten scripts and keyword analysis. Over time, the capabilities of chatbots improved due to technological progress. Based on their user-friendliness, program algorithms and the underlying technology used, chatbots can be classified into three main categories (Gupta, Hathwar and Vijayakumar, 2020):

- Menu/button-based chatbots – the simplest type of chatbots based on decision trees, with a predefined set of answers and responses;
- Keyword recognition-based chatbots – they recognize specific keywords in order to provide the desired response, with the support from AI;
- Contextual chatbots – are the most advanced, and they combine both AI and machine learning (subcategories: voice-enabled chatbots, service action chatbots and social messages).

From user perspectives, some of the most common recent examples of chatbots are Microsoft Cortana, Amazon Alexa, Google Assistant and Apple Siri. These virtual assistants are designed to source necessary information for a response from the internet, and, consequently, they can answer almost every question, complementing products and services with added value.

User experience with chatbots can vary. Users perceive chatbots as friendly companions rather than digital assistants (Costa, 2018). According to Xu et al. (2017), forty per cent of requests users make towards chatbots are rather emotional than informative. Another critical aspect of user and chatbot interaction is user perception of chatbots. Since the users have different preferences, they also prefer tailored responses from chatbots (El Hefny et al., 2020). In most cases, users would receive the same or similar response, which can result in an unpleasant experience for some of the user groups (ibid). Therefore, there is a recognized need to develop psychologically-driven personalized chatbots. As a potential response to this requirement, Samsung revealed their AI project called Neon, which resulted in "the world's first artificial human" in the form of an avatar (Bhusan, 2020). Contrary to other

AI-powered and equipped with a vast knowledge base, Neon is designed as a real person with a unique personality and set of skills and limited knowledge. Furthermore, it can detect the user's emotional status and adjust its response accordingly. Samsung developed a number of avatars with different appearances, personalities and sets of skills, with digital kiosks called Neon Frame as a medium for the technology (Fergus, 2021). Apparently, these life-sized displays will have a role to serve as informative interactive kiosks in places like banks and airports.

Overall, companies see chatbots as a tool to improve the quality and efficiency of customer services and improve the response rates to inquiring customers and automate online purchases (De, 2018). Additionally, chatbots can also improve the impression of fair treatment among users (Wang et al., 2021). Consequently, there are many chatbots platforms integrated into client support. According to a report by Boomtown (2019), chatbots are predominantly used by internet and technology companies, with B2B companies using chatbots more frequently than B2C companies. Their role is, more or less, strictly functional to reduce the need for human operators. Additionally, users expect a fast response when looking for support, advice or information. With the extension of user support services from traditional customer support over the phone to social media, customers are used to receiving support on a real-time basis (Gunarathne et al., 2018). According to Vaughan (2014), almost three-quarters of online users expect a response to their complaints within an hour. Nevertheless, clients expect real-time interactions with sellers even in the B2B context (Cancel and Gerhardt, 2019; Lin et al., 2022). In order to meet the user expectations, chatbots are used to either completely handle user queries or act as a triage before the staff member starts a conversation. Besides the commercial sector, the usage of chatbots can also be noticed in the public sector. For example, a bi-lingual chatbot named "Jooka" has been successfully implemented to deal with the queries from high school students and their parents regarding the university admission process (El Hefny et al., 2021). Since, during the admission period, university staff gets a vast number of typical queries, a chatbot managed to provide an instantaneous and relevant response. Chatbots are also used to support freshmen's adaptation to university life (Carayannopoulos, 2018) and assist instructors in managing extensive in-class activities (Schmulian and Coetzee, 2019).

Besides replacing staff in the customer service environment, chatbots are also paving their way into language learning (Huang et al., 2022). Overall, chatbots are used to interact in a foreign language with students (Fryer et al., 2019; Tegos et al., 2015) and respond to foreign language learning-related questions (Xu et al., 2021). Additionally, chatbots can conduct student assessments and generate feedback

(Jia et al., 2012). Interestingly, compared with a human lecturer, chatbots positively impact students' anxiety reduction (Ayedoun, Hayashi and Seta, 2015; Ayedoun, Hayashi and Seta, 2019; Bao, 2019), which result in a better user experience.

Embodied social robots

The presence of social robots (i.e., service robots) within hotels and restaurants has become a somewhat typical scene in recent years. However, like with other novelties, the technology adaptation process seems challenging, mainly due to the cost and limited technical capabilities (Ivanov, S., Seyitoğlu, F. and Markova, M., 2020). On the other hand, initial hype caused by the introduction of service robots in a hotel can also result in more work for employees and annoyed guests (Bhimasta, R. A. and Kuo, P. Y. 2019; Shead, 2019). Nevertheless, the introduction of service robots within the hospital industry can have certain advantages and disadvantages over human counterparts (Dogan and Vatan, 2019). Some of the main advantages would be robots' ability to work 24/7, punctual and precise delivery of a service, effortless modification of the scope of their tasks through software and hardware upgrades, and delivery of predictable and standardized service quality (Ivanov, S., Seyitoğlu, F. and Markova, M., 2020). On the other hand, service robots still have certain disadvantages, such as being able to operate in a structured manner only and lack of ability to perform the task the robot has not been programmed or designed for (Dogan and Vatan, 2019).

With initial experiences with service robots, hotel managers may now have a much more realistic opinion on what robots can and cannot do, how robots can be beneficial for both companies and customers, and understand how robots can make an impact on hotels' competitiveness, service quality, and profitability (Ivanov, S., Seyitoğlu, F. and Markova, M., 2020). Furthermore, Aymerich-Franch and Ferrer (2020) argue that implementing service robots in such environments is a kind of marketing and branding motivated decision than a functional one. Despite particular challenges, the tourism and hospitality industry embraced robots for various tasks such as the providing of information, check-in guests, cleaning of facilities, room service, item delivery, serving food and drinks, and interacting with guests (Tung and Au, 2018; Murphy et al., 2019; Collins et al., 2017; Ivanov and Webster, 2017). Nevertheless, technological development will continue. We can expect service robots to interact with clients in a more advanced way, together with improved social skills, which will make them even more appropriate for specific roles within the hospitality industry (Qui et al., 2020).

The usefulness and marketing related impact of robots highly depends on the user acceptance level.

Users' willingness to use robots in the service delivery context often depends on prior positive interactions with robots (Chi et al., 2021). Furthermore, according to the recent study (Preusse et al., 2021), it seems that groups (of tourists or café visitors) are more prone to interact with a social robot than individuals. In the context of retail banking, customers tend to interact with social robots in the same way as they would with the staff members (Amelia et al., 2021). On the other hand, Bertacchini et al. (2017) suggest that the adaptation of robotic companions in the context of retail heavily relies on the ability of a social robot to recognize a customer's emotional state and to use that finding to adjust its emotional state when trying to affect the customer buying decision. Although social robots are genderless per se, hardware designers regularly provide social robots with a specific gender. Interestingly, findings from a scenario-based experimental survey indicate a higher level of generated pleasure and satisfaction with female service robots (Seo, 2022). However, for a proper understanding of the user side within the context of new technology adaptation in the service industry, there is a need for more empirical studies conducted outside the controlled laboratory environment (Preusse et al., 2021). Considering the growing popularity of service robots, the scientific field of social robots is still relatively uncharted (Tung and Law, 2017; Chan and Tung, 2019; Collins, 2020), which can indicate increased research interest for this field in future.

The next aspect of social robot acceptance refers to the employees' preparedness to accept a robot as a co-worker. According to a study by Meyer et al. (2020), employees consider social robots as both a threat and potential support. Specifically, employees perceive social robots as a potential threat to their jobs. Although employees are aware of the social robot's technical imperfections, they are significantly aware of the substitution risk. Furthermore, the implementation of social robots disrupts employees' daily routines and increases their responsibility, developing particular inconvenience (Lee et al., 2016). In some cases, social robots are considered a threat to social relationships and an unpleasant interaction partner (Kamide et al., 2014; Okazaki et al., 2009). On the other hand, according to a study by You and Robert (2018), human-robot similarity can positively impact employees' willingness to work with social robots. Nevertheless, the employee-robot relationship is a complex challenge managers will have to handle in the future to increase the new technology adoption rate. For example, a recent study (Pauluch et al., 2021) illustrates the complexity of the challenge by indicating four typical employee personas (i.e., supporter, embracer, resister and saboteur) when it comes to the employees' perception of collaboration with social robots.

CONCLUSION

Social robots are very dynamic from both technical and commercial perspectives. Traditional chatbots in messaging apps have a reasonably long-lasting presence with tasks like dealing with user requests and providing less complex customer support. Additionally, a range of virtual social robots is developed as personal assistants integrated on mobile phones and smart home appliances. With speech recognition and advanced A.I. algorithms, these virtual social robots can provide additional value to customers through 24/7 availability and a standardized service quality level.

There is also a considerable range of embodied social robots being developed to replace staff in dull and repetitive activities, especially in hospitality, retail and elderly care. Due to the limited nature of hardware design, the contemporary humanoid robots are still far from being human-like, like in some popular sci-fi movies. Additionally, their ability to verbally and nonverbally interact with people is still somewhat limited and still not at the level of a human being. Therefore, with these limitations in mind, social robots must possess specific characteristics that can improve consumer acceptance, such as trustworthiness and physical appearance. Besides customer readiness to accept social robots as an alternative to human service providers, employees' willingness to work with robotic co-workers also seems to be an essential factor influencing the new technology adoption rate.

The field of social robots has vast research potential. As this literature review reveals, there is a solid number of research studies covering different applications of social robots, with a specific focus on social robot acceptance among different stakeholders (i.e., customers, employees and managers). However, most studies present laboratory research findings, which comes with certain limitations. Therefore, future studies in this area should focus more on research within the user environment and the real-life context of social robot applications. Due to the significant effort put into the technical development of social robots, especially in conjunction with A.I., we can expect even more applications of this technology. Consequently, academic researchers will have an even broader field to explore in future.

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