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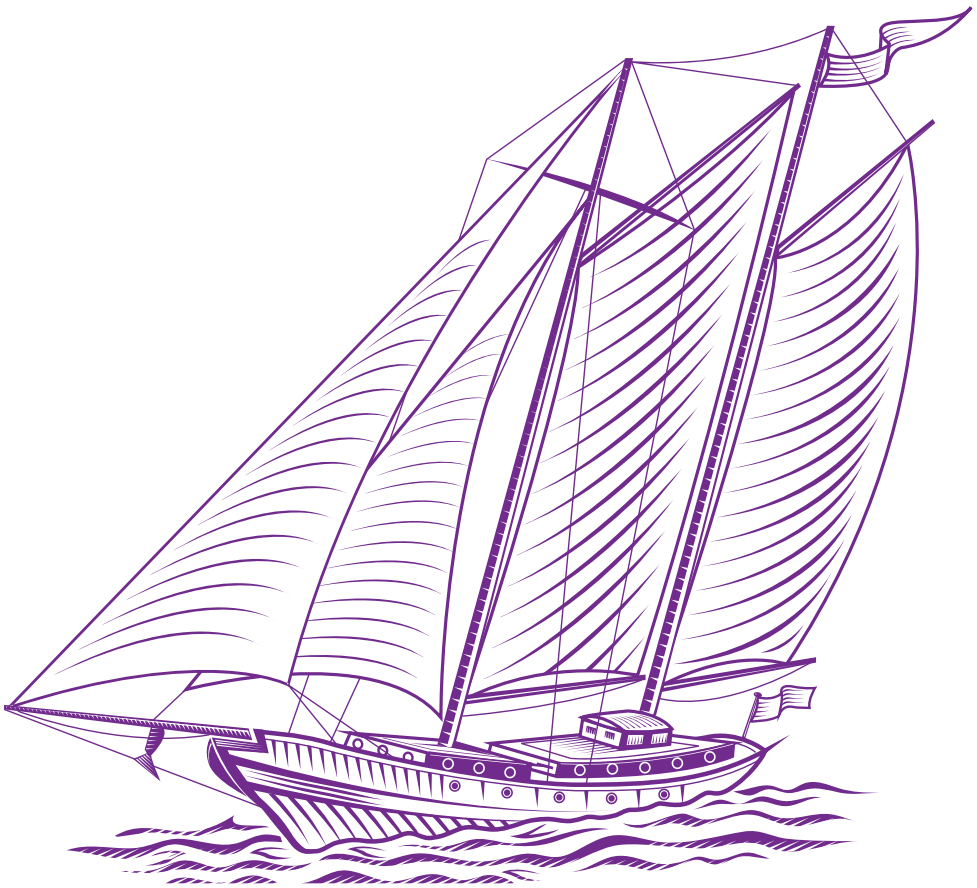

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THE IMPACT OF CULTURAL DIMENSIONS ON THE PERCEIVED RISK OF ONLINE SHOPPING

LASSAAD GHACHEM[1], COSTINEL DOBRE[2*], REZA ETEMAD-SAJADI[3], ANCA MILOVAN-CIUTA[4]

ABSTRACT. This article analyzes the influence of cultural factors on the perceived risks of buying online. To this end, we conducted a survey on a sample of Francophone African students, through an online questionnaire. In order to test the developed research model, we opted for structural equation modeling (SEM), using the Smart PLS 2.0 software. Data analysis has highlighted the importance of power distance in perceiving the risks of online buying and, on the other hand, the fact that online buying risk perception is less important in cultures where uncertainty avoidance is high. Based on these research results, marketers could adapt their marketing approaches at a local, regional or international level.

Key words: *online marketing, perceived risk, cultural values, mental accounting, privacy, financial risk*

JEL classification : M31; M10; L81

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Introduction and Review of Literature

Although online sales have experienced strong growth worldwide, their potential is still insufficiently exploited (Al-Materneh, 2016; Cases, 2002). According to Internet Live Stats, in June 2016, 49.2% of the world's population was using the Internet, while only 24.3% was buying from online stores. With regard to the online retail, statistics are not very conclusive, but all sources indicate an underutilization of its potential. Despite the many benefits of e-commerce over the traditional commerce, barriers to online shopping are preventing its growth (Zheng et al., 2012). Consumer exposure to new online sales methods and information overload on the Internet is leading to increased uncertainty for both new and experienced users (Al Kailani and Kumar, 2011, Zheng et al., 2012).

In an international context, knowing the cultural dimensions becomes a major asset (Al Kailani and Kumar, 2011). For example, Samiee (2001) argues that culture is the most important factor influencing international marketing on the Internet. This research is in line with previous work on the impact of cultural dimensions on online shopping behavior while proposing a new concept for the relationship between culture and perceived risk. The objective of the study presented here is therefore to understand the influence of cultural dimensions on the perceived risk of online shopping. This research is grounded in Hofstede's model of cultural values (1984) and in the theory of consumer risk.

Culture and the online buying behavior

According to De Mooij and Hofstede (2002), the idea that the homogenization of economic systems can lead to consumer homogeneity has not been validated by empirical studies and the effectiveness of marketing activities is determined by their adaptation to cultural values. The influence of culture on the consumer behavior and marketing practice has received varying attention over time, with renewed interest in the subject in recent years.

Throughout literature, we can identify the relationships between cultural differences and the perception of emotions, the processing of information, the categorization of stimuli, self-perception, the perception of others, the perception of the environment and aesthetic preferences,

motivations, learning, memory, attitude, influence of the reference group (Kastanakis and Voyer, 2014; De Mooij and Hofstede, 2011; De Mooij and Hofstede, 2010; Aaker and Sengupta, 2000; Han and Shavitt, 1989). Authors who have addressed the topic of cultural influences on consumer behavior discuss about the dimensions through which culture is conceptualized and operationalized. De Mooij and Hofstede (2002) show that from a fuzzy concept, culture has become a more concrete concept that can be quantified and correlated with different aspects of consumption.

The operationalization of the concept is possible thanks to the scales proposed by various authors, the Hofstede model (2001) being the most used analytical framework in marketing. This model is preferred by researchers because of the availability of scores for a large number of countries, for all its dimensions. This famous metric has been accepted and applied at both country and individual levels in cross-cultural studies (Yoo et al., 2011).

Zhu and Thatcher (2010) note that the expansion of e-commerce largely depends on the socio-cultural environment of the countries. As Van Slyke et al. (2010) point out that even if in e-commerce the behavior of the user is a global phenomenon, the acceptance level of online shopping is different from one country to another. These researchers confirm that national culture influences the intention to buy on the Internet. Moreover, according to Omar et al. (2011), to understand the online purchasing decision-making process it is important to put more emphasis on one's background (such as culture) than on the decision-making itself.

Perceived risk, trust and online buying

Recent research on the perceived risk in e-commerce highlights several dimensions that influence the intention to purchase online (Zheng et al., 2012). Understanding the causes of the under utilization of the potential of the Internet must take into account the notion of perceived risk. Perceived risk has been conceptualized from the theory of decision and the theory of value. The concept of perceived value has its foundations in the theory of perspective, developed by Kahneman

and Tversky in 1979, which replaced the utility function formulated by Von Neuman and Morgenstern in 1953, with the value function (Gupta and Kim, 2010). Through the theory of value, the authors sought to explain, from the perspective of maximizing value, the human behaviors adopted under conditions of uncertainty. In addition, in their theory, Kahneman and Tversky formulated the idea that people place greater importance on outcomes that are certain than on outcomes they consider to be only likely. This effect, known as the certainty effect, provokes consumer aversion, which determines their inclination to opt for rather small gains, at the expense of higher but probable gains. Starting from the perspective theory, approaching it in a critical way because it assumes only a one-dimensional evaluation of the results of the decision, Thaler (1985) formulated the theory of mental accounting. To explain consumer behavior, Thaler proposes to consider the losses and benefits perceived by taking a decision in relation to a reference point, not an absolute level. Moreover - and this is important for this study - Thaler shows that the loss function is more abrupt than the profit function, which implies that a consumer first of all considers the losses he will suffer when making the decision to the detriment of profits.

From the dimensions of perceived value, Barden (2013) believes that the meta-principles for consumer behavior are tangibility, the moment when the consequences of the decision manifest (immediately or later) and certainty. Increasing the perceived value involves either maximizing the certainty of the outcome of the decision, or minimizing the likelihood of a loss or risk of loss by the decision made by consumers.

Risk is a component of the perceived sacrifices in perceived value models (Gupta and Kim, 2010, Heinonen, 2004). The increase of perceived benefits, doubled the attenuation of the perception of sacrifices, and implicitly by risk perception, increases the probability of adopting the decision of purchase. Risk is the perception of uncertainty in relation to the potential negative consequences associated with a choice, the perception of the consumer that he will suffer losses as a result of the purchase or consumption of a good or a service (Volle, 1995). The notion of loss characterizes a situation in which an individual obtains a result below a point of reference, which comes from several sources: personal experience, social reference, target value, the best possible result or the

greatest regret about other alternatives (Yates and Stone, cited by Volle, 1995). Consumers perceive online shopping as riskier than offline shopping (Korgaonkar and Moschis; Donthu and Garcia, in Hassan et al., 2006, Lee and Tan, in Hsieh and Tsao, 2014, Zheng et al. 2012) because the Internet is an open, complex environment and the technology is beyond the control of the user (Rose, Khoo and Straub, in Kim et al., 2005). The perception of the risks of online purchases is generated by the Internet features, among which we can mention: i) the impossibility of touching and trying the products before the purchase; ii) problems arising from the security of the purchase; iii) confidentiality issues; iv) impersonal nature of the Internet. The perceived risks of online purchases are based on the following categories of factors: (i) consumer characteristics; (ii) the characteristics of the products and services; (iii) the characteristics of the buying situation; iv) the type of online store (Korgaonkar and Karson, 2007; Mitchel, 1999). On the other hand the perceived risk has an impact on consumer confidence (Comegys et al., 2009) which in turn plays a major role in the online purchasing process. According to Jarvenpaa et al. (1999) trust allows consumers to make transactions with merchants who are not part of their immediate network. They add that it reduces the perception of risk and facilitates the transaction. Based on literature review, Al-Matarneh (2016) and Zheng et al. (2012) have developed a summary of the dimensions for consumers perceived risk when buying online (Table 1).

Table 1. The dimensions of perceived risk in online buying

The dimensions of perceived risk in online buying	The definition and the authors who approached the subject
The risk of quality	It refers to the possibility that purchased products do not conform to the characteristics or performance expected by consumers buying in online stores. In some studies, we talk about "product risk" (Wani and Malik, 2012), while in other studies we talk about "performance risk" (Zheng, 2012).
Financial risk	It refers to the perceived likelihood of consumers losing money paid for products and other fees to enter into their possession, such as shipping costs. In some studies it is called "economic risk" (Zhang and Tan, 2012), while other studies use the term "monetary risk".

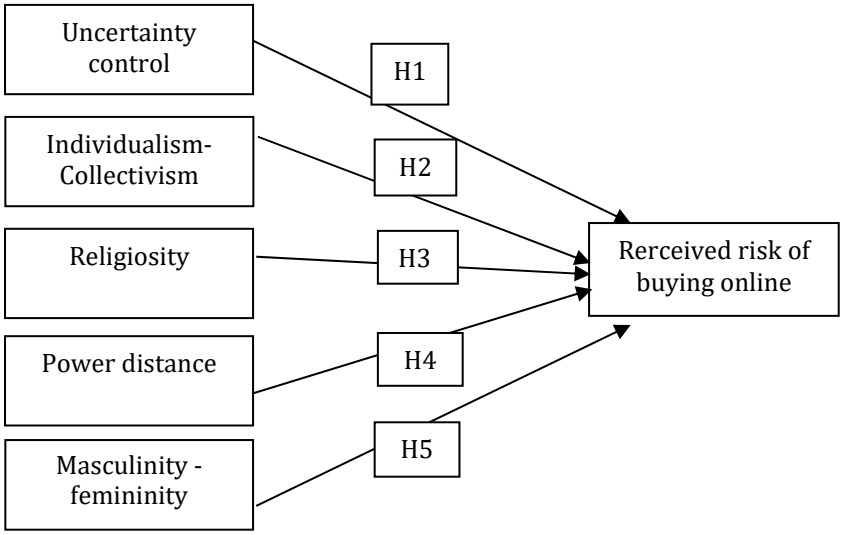
The risk of loss of privacy and confidentiality	It refers to the perception of insecurity about personal information and the use of the credit card. It is also called "security risk" and "privacy or privacy security" (Wani and Malik, 2012). It also refers to the potential collection and use of personal data with cookies and web bugs.
Social risk	It represents the potential deterioration of the consumer image possible non-acceptance or marginalization by the reference (Zheng et al., 2012); Zheng et al. (2012) call it "the risk of su norms". Zheng et al. (2012) refers to the potential loss of status in group due to the purchase of the product or service.
The psychological risk	It is the potential loss of self-esteem resulting from the frustration experienced when the consumer perceives that he has not fulfilled the purpose for which he purchased the product.
The risk of supply	It includes two dimensions: the delivery risk and the risk of loss of time, and refers to the probability of not receiving the product within the agreed timeframe or wasting time due to defects or loss of product (Zheng et al., 2012; Javadi et al. 2012). Zheng et al. (2012) also refers to the risk of loss of time due to the search for information on the defective product or because it is not delivered to the consumer within the agreed time.
The risk of losing health	It refers to potential negative effects on the health of consumers (Zhang, Tan, 2012). Some studies use the term "physiological risk" (Wani, Malik, 2012) and other studies use the term "physical risk" (Zheng et al., 2012).
The risk of the source	It is given by the credibility and reliability of the website.
The after-sales risk	It refers to the abrupt termination or the difficult relationship between the distributor and the consumer when unexpected problems occur at the product level and in the absence of a warranty.

(Source: adaptation after Al-Matarneh, 2016, p. 64; Zheng et al., 2012, p. 258)

Material and Method(s)

Conceptual model and research hypotheses

This research aims to study the influence of cultural factors on perceived risks in relation to online shopping. The explanatory model, proposed in Figure 1, presents the different concepts and research hypotheses retained.



Source: authors' construct

Figure 1. The impact of cultural dimensions on online shopping

The relationship between uncertainty control and the perceived risk of buying online

The tolerance for uncertainty and the notion of consumer perceived risk are closely related (Park et al., 2012). The work of Schimmack et al. (2002) has shown that people from Eastern cultures (where the avoidance of uncertainty is high) in order to ensure their well- being, tend to avoid risks by reducing anxiety. Instead, individuals from Western cultures will rather promote well-being by seeking to maximize pleasure. The work of Al Kailani and Kumar (2011) confirms that in cultures where the avoidance of uncertainty is high, the perceived risk of buying online is important and negatively affects the purchase intention. Also, in cultures where the perception of risk is strong, the impact on online shopping is negative. In cultures with low uncertainty avoidance individuals are more flexible and adapt more easily to new situations, their risk-taking is considered an ordinary act

(Balambo, 2013). According to Al Kailani and Kumar (2011), in cultures with strong uncertainty control, individuals try to rely on strict laws and regulations as well as on safety and security measures to reduce uncertainty. These authors have demonstrated that individuals from cultures where uncertainty control is important, will experience high levels of risk when buying online. They tend to leave less room for chance (Hofstede, 1984). Kim and Kim (2010) point out that some cultures where uncertainty avoidance is high will promote the safety of their environment with more fearful attitudes to avoid ambiguous and risky situations. They have a conservative attitude towards risk (Park et al., 2012). Moreover, in countries with low tolerance for uncertainty, online purchases are often underdeveloped (Lim et al., 2004). This leads us to try to understand the relationship between the perceived risk in online shopping and the tolerance for uncertainty among French-speaking African students, hence the first hypothesis.

H1: Individuals from cultures where uncertainty avoidance is high perceive more risks in buying online than others.

The relationship between individualism and the perceived risk of online buying

According to De Mooij (2004), the dimension of individualism vs. collectivism affects the consumer's need for risk reduction. This effect has been proved in studies related to online purchasing (Jarvenpaa et al., 1999; Kim, 2005). The work of Lim et al. (2004) has demonstrated that the aspects of individualism and collectivism influence the online shopping behavior. According to these authors, countries with an individualist culture are more likely to consume online than countries with a more collectivist culture. Park et al. (2012) highlight the relationship between perceived risk, trust and cultural differences (individualist or collectivist): individualistic cultures (such as the US) are more likely to trust Internet merchants than the more collectivist cultures (such as Korea). In addition, according to Stafford et al. (2004), consumers from an individualistic culture would use the Internet for e-commerce more than those who come from a more collectivist culture. Furthermore, Brosdahl and Almousa (2013) studied the impact of the individualistic

culture on the online buying perceived social risk. They show that this risk is low among individualistic societies. This allows us to formulate the second hypothesis.

H2: Individuals from an individualistic culture perceive less risks when buying online compared to those coming from a collectivist culture.

The relationship between religiosity and the perceived risk of online buying

Religiosity is a cultural component that has often been taken into consideration by various researchers (Bănică, 2011; Mokhlis, 2009; Moore et al., 2001). Its influence has already been demonstrated in several aspects of the purchasing behavior of individuals (Levin, 1979). Moreover, empirical studies often suggest the integration of this dimension in consumer research (Mokhlis, 2009). Religion is perceived as a true conservator of memory, that is, more than a set of principles or values (Bănică, 2011). For individuals from cultures with low religiosity, abstract representations are not accepted, on the contrary they promote rationality and reason in decision-making (Moore et al., 2001). For Siala et al. (2004) religion influences the decision-making process in consumer buying. Similarly, according to Yang et al. (2009), religiosity influences the consumers' perception of the online shopping sites. Religion can therefore act as a device to relieve anxiety (Balambo, 2013) and influence the perceived risk of new technologies. For example, a study by Braman et al. (2009) showed that the perception of risk in relationship with technology is more pronounced with conservative people with high religiosity. Bănică (2011) states that technological innovations will always present new challenges for religion. Religion is one of the cultural barriers to the adoption of e-commerce (Aleid et al., 2009) in particular because of the impact of the religious and moral ideology on the perceived risk of e-commerce. It would therefore be appropriate to study the impact of the religiosity dimension on the perceived risk of online shopping. This makes it possible to formulate the third hypothesis.

H3: Individuals with high religiosity perceive more risks to buying online than others.

The relationship between power distance and the perceived risk of online buying

Power distance within a culture represents the gap between the different hierarchical levels of a society and the degree of inequality among the population of a country (Hofstede, 2001). According to Kale and Barnes (1992), this dimension has an impact on the opportunistic behavior of individuals. On the other hand, Rothaermel et al. (2006), state that power distance impacts on the attractiveness of companies active on the web. Bajaj and Leonard (2004) add that in cultures with a high power distance, the individual will always have difficulty making purchases on the Internet. These cultures are inclined to more interpersonal and verbal communication and require more communication time, which is a barrier to buying online. In the case of online purchases, the perception of risk would therefore depend on the importance of the hierarchical distance, hence the fourth hypothesis.

H4: Individuals from cultures promoting high power distance perceive more risks to buying online than others.

The relationship between masculinity and the perceived risk of online buying

The masculinity dimension (vs. femininity) postulates that male cultures place more emphasis on tasks, assertiveness and performance, while women's cultures place more emphasis on the quality of life, support for others, the protection of the environment and discretion (Hofstede, 1988). Masculinity has a positive impact on innovation (Steenkamp et al., 1999). In masculine cultures, importance is given to prestige and status, success, pleasure and power (De Mooij, 2004). A more masculine society has a predominance of male buyers and is often more involved in e-commerce (Stafford et al. 2004). The masculinity vs. femininity dimension impacts on the consumers need for risk reduction (De Mooij, 2004). These findings are consistent with gender studies. Women perceive a higher level of risk towards online shopping than men (Garbarino and

Strahilevitz, 2004) and gender influences the consumer perception on the online shopping sites (Yang et al., 2009). Finally, other studies have shown that loyalty is rather stronger among women's cultures (Crotts and Erdman, 2000). It would be therefore appropriate to study the impact of the masculinity dimension (vs. femininity) on the perceived risk of online shopping. This makes it possible to formulate the fifth hypothesis.

H5: Individuals from masculine cultures perceive less risks to online shopping than those from feminine cultures.

Research Methodology

As shown in Figure 1, our research model incorporates five constructs that may have an impact on the perceived risk of online buying: uncertainty control, individualism / collectivism, religiosity, power distance, and masculinity / femininity. They are based on the work of:

- Hofstede (in Balambo, 2013) for measuring individualism vs. collectivism, high power distance vs. low power distance, femininity vs. masculinity, and high uncertainty control vs. low uncertainty control.
- Allport and Ross (in Schneider et al., 2011) for measuring religiosity.
- Hassan et al., (2006) for measuring the perceived risk of online buying.

Data collection involved French-speaking African university students. Previous studies on e-commerce have often used students as the basis of their samples (Comegys et al., 2009). In addition to this, we chose an Internet survey administration (through an online questionnaire). This approach makes it possible to reach a broad target of students that are geographically dispersed and that have varied frequencies of Internet usage. Finally, the online questionnaire has the advantage of being self-administered and its interactive aspect promotes the immediacy of responses. To disseminate the questionnaire, we used the list of African scholarship holders of the "EUGEN IONESCU" program (Agence Universitaire Francophone). In total we have received 137 student responses, of which 57% are female and 53% are studying in the Master programme (in various specialties). In addition, 52% of these respondents come from North of Africa.

Results and Discussions

To test the hypotheses of our research, we opted for structural equation modeling since our model contains latent variables. We also chose the PLS method because it can be applied to a small sample (Fornell and Lacker, 1981). The software used for data analysis is Smart PLS 2.0. Comparing the averages of the variables presented in the descriptive analysis (Table 2), we find that the most important risk is that relative to the product's performance (with an average of 5.25). Overall, respondents agree that it is difficult to determine product characteristics such as quality, size, color and design simply by looking at photos on the Web and not being able to feel and / or try the product before buying it online. In addition, they often fear that the product delivered does not exactly match that displayed on the screen of the computer. A second major risk is that of the source and reliability of companies that are online (with an average of 5.00). Then comes the financial risk which is in third position with an average of 4.57. The social (2.36), physical (2.66) and psychological (2.95) risks, however, are perceived as being less important. Regarding the cultural dimensions, we find that religion is the most important dimension (with an average of 5.08) compared to i) individualism (3.91), ii) weak power distance (3.29), iii) masculinity (4.21), and iv) uncertainty control (4.22).

Table 2. Descriptive statistics

Constructs / variables		Average	Ecart type	Min	Max
Risks	Financial	4.57	1.44	1	7
	Performance	5.25	1.54	1	7
	Time related	4.01	1.52	1	7
	Social	2.36	1.48	1	7
	Psychological	2.95	1.49	1	7
	Physical	2.66	1.35	1	7
	Source related	5.00	1.51	1	7
Individualism/Collectivism		3.91	0.85	1	7
Power Distance high/low		3.29	0.83	1	7
Masculinity femininity		4.21	0.66	1	7
Uncertainty control high/low		4.22	0.66	1	7
Religiosity		5.08	1.57	1	7

Source: authors' research results

Reliability and validity

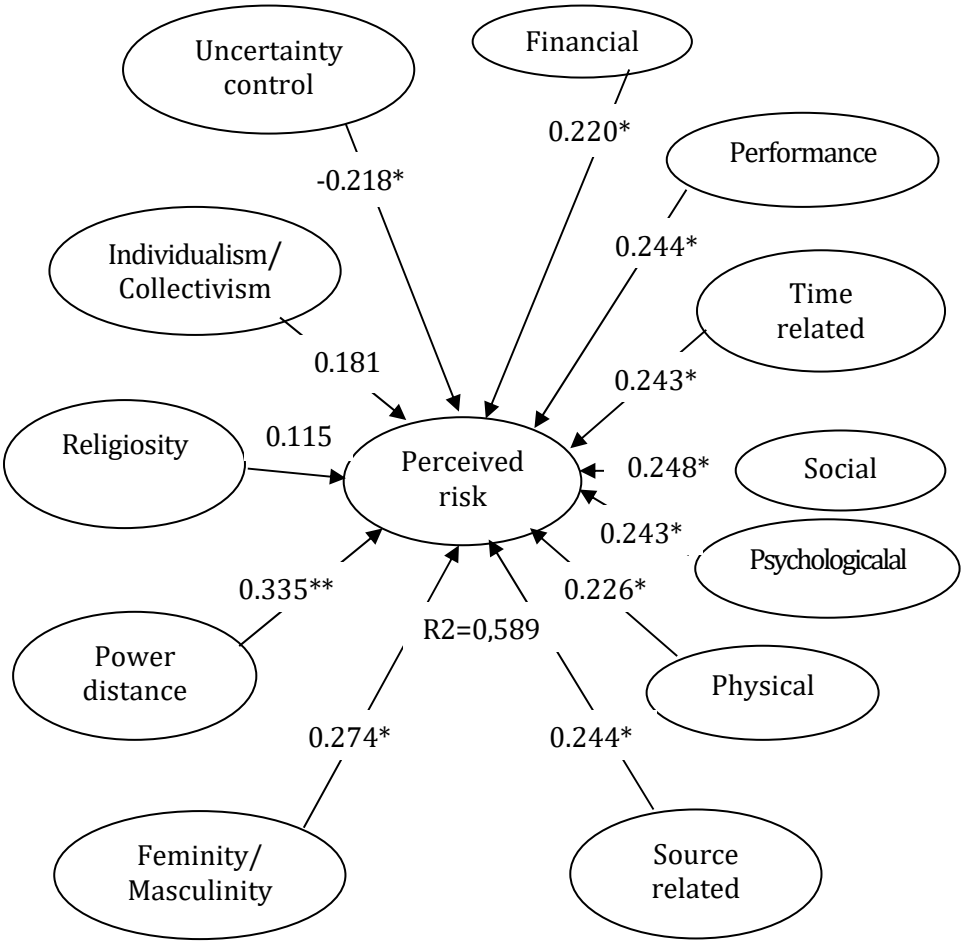
Table 3 shows that all the latent variables have a composite reliability (Chin, 1998) greater than 0.6. This confirms the internal consistency reliability of our measurement model. The convergent validity of the measurements tests the correlations of the measurements with their respective construct. Items with correlations less than 0.5 must be removed. Discriminant validity indicates to what extent each construct is both unique and different from the others, using as a criterion the correlations between each pair of constructs. The variance shared by different constructs (squared correlation) must be less than the average variance extracted from each by its measures. A construct must share more variance with its measures than it shares with other constructs in the same model. Table 3 presents the inter-correlations between the constructs of our research model. The diagonal of the matrix represents the average variance for each construct. Fornell and Larcker (1981) suggest using the average variance extracted, ie the variance shared between a construct and its measures. In our model the discriminant validity has been verified (greater than 0.5).

Table 3. Reliability and validity

Constructs	Composite reliability	1	2	3	4	5	6	7	8	9	10	11	12
1. Financial	.76	.72[a]											
2. Performance	.91	.37	.89										
3. Time related	.86	.23	.48	.84									
4. Social	.94	.13	.03	.30	.92								
5. Psychological	.87	.37	.31	.40	.27	.84							
6. Physical	.83	.20	.27	.20	.40	.37	.79						
7. Source related	.90	.23	.54	.23	-.07	.22	.19	.87					
8. Individualism/ Collectivism	.66	.30	.24	.11	.18	.27	.12	.16	.58				
9. Power Distance	.79	.32	.17	.37	.33	.28	.13	.19	.34	.75			
10. Feminity/ Masculinity	.84	.30	.38	.30	.28	.30	.13	.18	.30	.48	.85		
11. Uncertainty control	.73	-.25	-.27	-.22	-.26	-.11	-.18	-.13	-.13	-.13	-.39	.70	
12. Religiosity	.94	.42	.28	.27	.09	.20	.27	.09	.10	.17	.27	-.41	.84

Note: a) Diagonal: (mean variance extracted)$^{1/2}$ = ($\Sigma\lambda i^2$ / n) ^{½}
Source: authors' research results

Figure 2 shows the results of our PLS analysis. The variance explained in connection with the perceived risk of buying online is 58.9%. This shows that our model can predict and explain the perceived risk. Regarding the degree of uncertainty control, we find that the impact on perceived risk is significant (γ = -0.218). The risk of buying online is therefore influenced by the cultural dimension of uncertainty. In addition, the correlation is negative. This allows us to deduce that students from cultures where uncertainty avoidance is high perceive less risks about online buying. This contradicts the work of Al Kailani and Kumar (2011). These students would therefore tend to leave more room for chance (Hofstede, 1984) with a less conservative attitude to the risk of buying online. There is a tendency for respondents from an individualistic culture to perceive less risks to online buying than those from a collectivist culture (γ = 0.181). It is essentially the financial risk that is affected. However, this hypothesis is not confirmed since the value of the coefficient is not significant. Hypothesis 2 is rejected. This is also the case for the dimension related to religion. The trend of a positive impact on the perceived risk (γ = 0.115), especially the financial risk, is again observed. Nevertheless, the value of the coefficient is not important enough for this relationship to be confirmed and any conclusion would, in this respect, be rather risky. Hypothesis 3 is therefore also rejected. Regarding power distance, we note that it is the cultural dimension that has the most influence on the perceived risk of buying online (γ = 0.335). The relationship is particularly important when we talk about social, financial, psychological and time-related risks. Hypothesis 4 is confirmed. People from cultures favoring power distance perceive more risks for online buying. Finally, for the 5th hypothesis, it turns out that the more we tend towards masculinity, the more we perceive risks related to online shopping. This could confirm that the dimension of masculinity vs femininity has an impact on the consumer need for risk reduction (De Mooij, 2004). However, our results contradict the research of Stafford et al. (2004), which state that a more masculine society would have a predominance of male buyers and is often more involved in electronic commerce.



*Notes: *Significant at 0.05 level*
***Significant at 0.01 level*
Source: authors' research results

Figure 2. Results of Structural Model Analysis (PLS)

Discussions and theoretical contributions

From a theoretical point of view, the present research demonstrates the influence of the cultural factors on the perceived risks of online buying. This research is based on Hofstede's model of cultural values (1984) and in the theory of consumer risk. In our research model we

have integrated five constructs that could have an impact on the perceived risk of buying online: uncertainty control, individualism / collectivism, religiosity, power distance and masculinity / femininity. We also took into account the influence of religiosity over the Internet and eight dimensions of online risk perception. Our findings show that cultural differences have to be taken into account in the early stages of planning of any global expansion project on the Internet.

Managerial contributions

Our results can have major managerial implications. Web marketers could better understand the different sources of risk perceived by the Internet user according to its culture and possibly better adapt their marketing approaches locally, regionally or internationally. Risk perception is an important factor in limiting the growth of online commerce, and reducing it requires, first of all, that marketers identify and understand its dimensions.

In the context of online shopping, Cases (2002) analyzes the relationship between the dimensions of perceived risk and the risk reduction strategies, taking into account the sources of information or sources of risk: i) the product; ii) the remote transaction; iii) the Internet; iv) the website. The author states several strategies to reduce the perception of risk when buying online, such as: the use of resources and tools for comparing offers, the search for complete information about the product, price and trading conditions, the possibility to change the product, the possibility to refund the amount spent, the existence of a local offline retailer, the security of payments, the reputation of the retailer, the possibility to contact the retailer remotely, the familiarization with the website, etc.

The importance of the dimensions of perceived risk differs from one culture to another, which is why marketers should choose risk reduction strategies that are appropriate to cultural values in each market. Store loyalty is a strategy to reduce the buying risk in collectivist cultures (Milner et al., 2004). Individuals belonging to individualistic and masculine cultures can be expected to seek additional information on product performance, on online retailers, and to evaluate products in traditional stores before they buy from online stores. Female consumers adopt loyalty to stores and brands as risk reducing strategies (Crotts and Erdman, 2000).

Some consumers prefer non-personal risk reduction strategies, while other consumers prefer personal strategies (Zheng et al., 2012). Non-personal strategies include providing detailed product information, using security solutions for payment, providing money-back guarantees, drawing on previous brand experience, and buying known brands. Personal risk reducing strategies include comments, consumer reviews, website loyalty, and the ability to communicate with the online vendor. Minimizing the risk of buying online also involves providing information to reduce uncertainty about the results of the online purchases (Zheng et al., 2012). The presentation of certain 3D images in the content of the site, details on the composition of the product and its size, and the presentation of product comparisons help reduce the perceived risks of online buying. It is recommended that sites contain clear guarantees for refunds and that they provide quality services to develop and support the positive experience of site visits. Developing customer retention strategies and tailoring customer-specific offerings are also specific components of relationship marketing that lead to risk perception reduction and increased confidence in online retailers and their websites.

Conclusions

Among the limitations of this research, we can mention the small sample size and the sample structure, composed exclusively of Francophone students who have benefited from a "Eugène Ionesco" scholarship offered by the AUF. Thus, 52% of the respondents live in countries of the Maghreb zone, so that could mean a relatively high homogeneity of the sample. Moreover, although previous studies on e-commerce have often used students as the basis for their samples and research, it would be appropriate to test our model on another non-student population too.

In addition, as noted above, the dimensions of online risk perception and perceived risk reduction strategies were analyzed against a variety of variables. Literature on the importance of risk reduction strategies based on the dominant cultural values of different markets is not well developed. For this reason, we propose, for future research, the analysis of correlations identified between online shopping risk reduction strategies and the cultural values of consumers.

The research model explores the causal relationships between five culture-related constructs and the perceived risk of online shopping. Data analysis highlights the importance of power distance. A culture that promotes power distance will have a particularly important impact on the social, financial and psychological risks when shopping online. On the other hand, we have been able to deduce that in cultures where uncertainty avoidance is high, the perception of risk when shopping online is less important. However, we have not been able to detect a significant relationship between individualism and perceived risk (it is the same for religiosity). Finally, we found that the masculinity aspect of a culture has a positive influence on the perceived risk of shopping online.

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MANAGING TECHNOLOGY IN MACEDONIAN SMEs CONTEXT: PERCEPTIONS, PRACTICES AND CHALLENGES

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ABSTRACT. Academicians and policy makers alike state that technology is the catalyst of growth for small medium businesses (SMEs). The review of past research reveals that the strategic upside of technology is the accomplishment of competitive advantage through their business strategies. The effective implementation of advanced technologies enables companies to achieve economies of scale and scope simultaneously. That is, investigating advanced technologies reduces the cost of future product innovation, allowing the company to increase its speed of response to market and competitive changes. Therefore, investment in advanced manufacturing technologies represents a strategic option. Despite the great importance of technology in small sized businesses, not many studies attempted to explore technology embraced by them, especially within the Macedonian context. The purpose of this paper is to gain an understanding of advanced technology knowledge and usage within the specific SME sector in the Republic of North Macedonia and to discover, if technology is used, whether it is seen as crucial to their competitive strategy. Moreover, the main research question is how advanced technology affects different aspects such as costs, sales and profitability, employee productivity, customer care, share of the e-market and competitiveness. Primary data were obtained through a questionnaire survey, carried out in small and medium sized businesses in the Republic of North Macedonia and evaluated using the tools of descriptive statistics and the methods of comparison, induction, deduction and synthesis. The research results indicate that advanced technology influences favorably the overall costs and also increases profitability. Likewise, the findings show that advanced technology leads to increase of productivity and sales. One of the conclusions of the paper is that small businesses find it important to invest in advanced technology in order to promote competitiveness.

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Introduction

Our starting premise in this paper is that creating and maintaining competitive advantage is one of the main and most challenging tasks of today's businesses growth. One of the most basic questions that trigger the managers nowadays is how firms can manage strategically their product offering, value chain system, product strategies and technology, competences and capabilities in complex changing business and technological environment (Burgelmann, 2001). With other words, the key to raising growth is the ability to compete in increasingly global markets, both at home and abroad, and to build competitive advantage. In fact, the need to innovate constantly in order to achieve and sustain a competitive position is the central challenge to managers of all companies. Therefore it can be noted that today in the market survive only those companies which quickly and constantly introduce new products and services. Over the years, company's strategies follow some kind of pattern that emphasize difference and competition and strategies that recognize the roles of technology and innovation. As technology advances, organizations are moving towards adapting the best options so as to enjoy a competitive edge.

Review of Literature

In a broader sense, technology includes many tools and innovative processes that managers and employees use to help company to achieve its goals. In regards to the strategic management process that mostly

relates to planning how to use resources for goal achievement, technology is something that ensures the best use of resources and capabilities. As early as 1961, the great Schumpeter has acknowledged that technological competition on global scale makes a significant managerial challenge for firms or organizations since technological advancements have brought about drastic changes in form of emergence, fusion, disruption and evolution of industries over time.

Burgelman et al. (2001) defines technology as " technology refers to theoretical and practical knowledge, skills and artifacts thatcan be used to develop products and services as well their production anddelivery systems. Technology can be embodied in people, materials, cognitive and physical processes, plant, equipment, and tools". According to Durrand (2018), technology relates to design, production and distribution of goods and services in response to market needs. What he points out is that technology should be managed even it includes tacit know how that is very hard to be managed. According to Dosi (1982), technology is naturally related with innovation since the technology requires continual improvement through a flow of incremental innovations which construct and shape a technological trajectory. Some scholars have considered technology also as the attainment of strategic goals by suggesting product innovations. It provides an input in the product development process to be utilized effectively in a strategically managed company. Technology refers to information systems that businesses use to maintain their competitive advantage by responding to their business markets. A strategically managed organization sets goals for developing new technologies, or new capabilities, to introduce in a target economy, not just product innovations. This relates to expanding the organization's market position, another goal of strategic management. A firm can create new markets when it introduces new technologies if it believes in front-end investment in technology development.

When it comes to the concept of "advanced" that is defined as any technology used in the design, engineering, fabrication and assembly, automated materials management, as well as the development of systems of information, integration and control (Trott, 2008). Thus understood, advanced technology in enterprises can be divided into advanced technology in production and advanced technology in the information communication and management. Advanced technology can be also considered as knowledge,

where employees are both producers of knowledge and keepers of knowledge. Their knowledge is an asset that managers seek to develop through the strategic management process, including identifying what the organization will do to develop employees through training and professional development (Collins at al.2010).

The implementation of advanced technologies allows companies to diverge from the traditional strategies of striving for low-cost leadership and differentiation. Effective implementation of advanced technologies enables companies to achieve economies of scale and scope simultaneously. That is, implementing advanced technologies reduces the cost of future product innovation, allowing the company to increase its speed of response to market and competitive changes. However, technology itself can have important strategic implications for the companies and can exploit competitive advantages, but yet not all of them are strategically beneficial. In addition, technology alone cannot provide a competitive advantage. The way these technologies need to be applied (technology strategy) and implemented (technology management) needs to be understood by both the academics and the practitioners. In this regards to this, the performance of firms, besides other factors, basically relies on effective management of these technologies. According to Biggler (2009), a firm's ability to build competitive advantage depends on the practices of general management. In fact, general management who create the distinctive set of practices and also develops a context for technology development manage to stay ahead, offering the highest quality products with lowest cost and doing continuous, incremental improvements that are value driven. Pandza et al. (2004) posit that "Advances in technology have moved companies toward a new competitive landscape. Managers are experiencing the emergence of new concepts or even a new paradigm". The rapid change in technology over the last two decades has raised concern on two major issues. These have been defined by Mitchell (1998) (1) poor linkage between technology and strategy planning and (2) over-reliance on short-term measures, both of which masks the more strategic plans. Strategic importance of technology has been recognized as helping to provide competitive advantage.

Furthermore, many scholars recommend that technology strategy should be aligned to corporate strategy in order to reap out benefits like performance and competitiveness for the company and therefore

the more attention should be paid to technology in strategic processes. (Ansoff, 1986, Mei &Nie, 2008, Dodgson et al., 2008). In 1980, Kantrow was the first that advocated a better integration of technology into strategic management. Technology strategy is a key ingredient in strategic technology management and has become a primary factor in devising business strategy and to sustain a competitive advantage, so companies do need to connect and align technology strategy with business strategy. (Bleicher, 2004). Characteristics and capabilities of a technology need to be developed and evaluated across the company. Considering the importance and relation of technology with the firms' broad competitive strategy, technology should be connected and aligned to business strategy. Moreover, firms' strategy on products, services and processes must be devised in relation to technology throughout the value chain process (Dodgson et al., 2008).

According to Burgelman et al. (2001), in current era, technology strategy has become a key factor in devising business strategy and to sustain a competitive advantage. He studied this fact and concluded that it helps to answer questions such as, which competences and technologies are to be adopted for competitive advantage, what should be the investment level on technology development, and how to organize technology development and its management etc. Although, scope and importance of technology strategy is defined in companies, but the extent to which such strategy is incorporated into business strategy and the existence of an explicit technology strategy varies even in technology oriented firms (Kropsu-Vehkapera et al., 2009).

According to Bleicher (2004), strategic management is a big umbrella, in which strategic technology management is one colour and food for thought. Portfolio of technological evolution in a company should be managed strategically by taking into account technology during strategy formation and execution process of a company. Herewith, strategic technology management is expected to provide means or ways to manage complexity, ambiguity and dynamic nature of businesses, caused by the technology. Porter (1985) stated that technology is involved in all activities of value creation process of a company so technology aspects must be considered properly during strategy formation. Therefore, companies do need to cater for technology matters in line to product and business strategy. In his book Competitive Advantage (1985), Porter noted that technology has

the potential to change the structure of existing industries and to create new industries. It is also a great equalizer, undermining the competitive advantages of market leaders and enabling new companies to take leadership away from existing firms.

In the context of SMEs, since the major focus in this paper is given to them, the adoption and use of technology is widely seen as critical for their competitiveness in the emerging global market. The benefits of advanced technology in SMEs are quite enormous and should not be underestimated. They include cost reductions and improved marketing strategy, more efficient and effective communications as well as superior procurement and methods of distribution (Collins et al., 2010; Pool et al., 2006; Singh, 2011; Pickernell et al., 2013; Ajayi and Olayungbo, 2014). However, it should be considered also that SMEs generally struggle with limited resources in terms of time, money and expertise. Juggling competing demands, SMEs are often cash poor and most lack the range of internal expertise available to the large firm. In fact, it is the skill and enthusiasm of the owner-manager that typically drives the business forward and shapes the character of investment decisions (Caldeira & Ward, 2002).

Compared to large businesses, SMEs are facing a lot of obstacles and lag behind in their use of technology in both ways-operationally and strategically. One of the primary shortcomings that characterize them is actually the lack of managerial skills to conceive, plan and implement and reluctantly update technology (Caldeira & Ward, 2002). According to Pool at al. (2006), SMEs are" constrained by resources, hemmed in by competing demands, caution and suspicion often greet new technological opportunities. Therefore large firms for example, have adopted e-commerce much faster than SMEs. The evidence is showing that when it comes to introducing e-commerce, SMEs managers are acting with caution to its opportunities and approach very slowly in their strategic and operational actions. (Al-Qirim, 2005).

In case of developing countries, such as the Republic of North Macedonia itself, a very specific obstacles can be identified on the issue how SMEs manage technology and innovation. Internal barriers are those that typically include organizational culture, lack of resources, owner/managers' attitude toward strategic technology, and the level of training of employees. The external barriers are those that lie outside and include a lack of

infrastructural facilities and limited funds from banks and other governmental bodies. Kapurubandara and Lawson (2006) suggest that in order for these inhibitors to be overcome, SMEs need to work collaboratively. Perhaps one of the most surprising barriers to advanced technology adoption is the lack of knowledge of ICT solutions, how they work, their implementation and perceived benefit to the SME sector. The attitude of management in an organization plays a crucial role in the adoption of ICT as in most cases in SMEs the managers are also the owners. Support from the management of an organization, most especially top management, is essential for successful technology implementation and adoption for SMEs. If the management is not disposed to its adoption and utilization, then SMEs will not be able to use. The owner/manager's weakness therefore becomes a limitation of the business as well. Lastly, most SMEs do not have the capability to expand their advanced technology resources due to limited access to capital (Paul et al., 2008). This is a common factor that affects the adoption of advanced technology in SMEs.

Overall, there are not exiting common frameworks that can lead SMEs how to better integrate technology and innovation into value chain model of a business. This is because of the rapid changing and increasingly competitively and high complexity of the global economy. In general, companies have to evolve their own strategic management technology practices according the nature of their business, R&D pursued, organizational culture and structure etc. However, what can be highlighted as common are the basic aspects related to value creation and business model, strategy formation and execution, technology strategy, technology management, innovation management, and interface between technology and innovation strategy. This would allow SMEs to better understand concepts and intermediary steps, required to formulate a technology and innovation framework for them to develop and sustain technological capabilities. With this, they will be able to benefit from their internal strengths, overcome their weaknesses, exploit external opportunities and minimize their external threats. Foremost, main variables affecting innovation are consisting of firm strategy, expenditure on research and development, use of technological information sources and overall performance of the firm.

In addition, it can be acknowledged that most of SMEs do not pay much attention to technology strategy or technology management. The reasons are very broad, such as lack of awareness and low interest on

the part of management, very narrow focus on managing everyday operational activities, lack of funds for research and development etc. certainly, they are SMEs that innovate or invest in technology but this usually happens when customers require new offerings, suppliers propose new modes for transformation or competitors power increases. What we can state here is that in most of the cases, there is passive innovation and the reactions are mostly related to the innovations that are coming from outside. The major challenge of SMEs should be greater operationalization of the technology strategy as a core competence.

In the Republic of North Macedonia, small and medium sized companies (SMEs) play a significant role in the country's economic development. As of 2018, SMEs comprise of 99.7% of businesses and account for almost two thirds of total value added and nearly three quarters of all jobs, well above the respective EU averages of 57% and 66%. In 2008-15, the value added by SMEs increased by 17%, while employment grew by 19%.(European Commission Report, 2017). In the EC Report, it is noted also that especially small and micro companies face problems in particular with skills and innovation. In this perspective, there is a notable need to catch up as regards online transactions, lack of ICT skills and R&D support to SMEs. Other remaining problematic issues include regular access to finance with a dearth of alternative non-banking financing sources, and a lack ofentrepreneurship which is viewed negatively by those who believe that setting up a business is the only option to find work. The majority of SMEs in North Macedonia do not have access to bank loans or funding to support the development of advanced technology in their businesses. Moreover, paying back loans that have high interest rates/bank charges can be too much of a burden for the majority of typical SMEs. The lack of a skilled labour force and basic business skills are a bottleneck for most Macedonian SMEs, affecting their potential for growth in productivity and competitiveness and, consequently, in new employment.

Due to the importance of this sector, the development of the small and medium enterprises is listed as one of the main priorities of the government. Overall, the efforts are already focused on improving the business environment for the development of SMEs, while strengthening the efforts for improving the competitiveness and innovations. (National Strategy for SMEs 2018-2023) This attitude is also evident in the latest

review of the Economic Policy Index of the EU, (OECD, 2016) where OECD acknowledges Macedonia for its institutional framework and operational environment, where the country is considered "one of the most advanced economies in the the region of Southeast Europe in terms of advancement of its SME sector". This assessment is positive aspect and should encourage the authorities to continue with the policy of fostering entrepreneurship and SMEs growth and also ensure adequate provision of services that meet the needs of SMEs. What is worth to be stressed here and in regards to the topic of this paper is that besides the policies and programs, what is more specifically very crucial is the given support in terms promoting the use of technology in SMEs as a strategy for stimulating increased productivity and competitiveness. All these facts indicate the importance of advanced technology as a key factor for the development of SMEs. As Polland (2006) noted "in the information society environment successful enterprises produce high technology goods and services and transform human effort materials and other economic resources into product and services that meet customers need. In such society, in order to be successful, SME would need high quality information and must always provide superior value, better than competitors, when it comes to quality, price and services." For these reasons, the Government of Macedonia should emphasize the importance of advanced technology and its uses by SME's as a strategy for increased productivity and competitiveness. The adoption and use of advanced technology is critical for the competitiveness of Macedonian's SMEs in the emerging global market, while promoting significant positive consequences on the nation's economy. Also, it can help SMEs to may tap the rapid growth of e-commerce to expand globally. The Internet is revolutionizing the way businesses operate and compete, as e-commerce transcends the limitation of geographical boundaries. For example, by effectively harnessing the internet, SMEs are able to search the international business community for potential partners and suppliers without the need for expensive and time-consuming travel. Moreover, high value-added services may be delivered via e-commerce at relatively low costs. On its part, the government has invested considerably in the necessary infrastructure to make e-commerce possible.

Results and Discussions

Primary data were obtained through a questionnaire survey, carried out in small sized businesses in the Republic of North Macedonia and evaluated using the tools of descriptive statistics and the methods of comparison, induction, deduction and synthesis. The questionnaire was answered by 47 respondents (sent to 98 respondents) from small and medium sized companies in the Republic of North Macedonia. The data was collected over a two-week period of time and the response rate was 47%. The majority of the respondents were managers (74.8% or 35 respondents), followed by those who stated that they are both owners and managers (20% or 9 respondents) and lastly those who are owners (6% or 3 respondents). The majority of the respondents came from businesses operating for more than 10 years (70%), followed by those that exist between 1 and 5 years (22%) and those that operate between 5 and 10 years (8%). The majority of the surveyed companies 81% were small sized (up to 50 employees), while 19% were medium-sized (up to 250 employees) as defined by the established national classification. Regarding the competiveness internationally, 35 (74%) of the interviewed managers responded that they mostly compete on the global market. For the rest of the interviewed managers (12), the local market is the key for their operations.

The questions were designed to gain an understanding of advanced technology knowledge and usage within the specific SME and to discover, if technology is used, whether it is seen as crucial to their competitive strategy. It is important to once again highlight that this research makes use of a quantitative approach in trying to answer the research question. The replies are based on the perceptions and practices of the SMEs' managers as they run their businesses. To begin with, the respondents were prompted to provide their opinions of the importance of advanced technology to them based on their previous experiences. Most of them perceived advanced technology as a crucial factor, as something that is necessary for success, as a pathway to development and improvements. Some connected advanced technology to their everyday operational activities. There was only one answer that shed a slightly more worrying tone to the term advanced technology accentuating that it can be a terrifying thing, but something that has to

be done, by accentuating that small changes and adjustments happen all the time.

Asked about the usage of advanced technology in their business operations, the survey shows that almost all (93.62%) of the respondents agree that their business uses some form of advanced technology in their business processes. When asked about the technology employed, 27(57%) of the managers consider their current technology sufficient for the product strategy requirements. Nevertheless, they would consider additional investment if needed and 20 (43) of them answer that they will definitely need to change the applied technology if new products are to be added to their current product lines.

The next question provides deeper insight into whether the companies have a technology strategy as a part of the overall strategic management process. It also tries to test whether the respondents are familiar with the concept of technology strategy. The respondents were offered set of options for answering this question. For most of the respondents (68%) technology strategy means a primary factor in devising business strategy and to sustain a competitive advantage, so companies do need to connect and align technology strategy with business strategy. As this is one of the most relevant definitions of technology strategy the answer uncovers that the respondents are familiar with the concept itself. The other answers were related to pursuing new technology opportunities, overall change of the business model, research and development etc. However, on the question do they have a technology strategy as part of their strategic management process? only very few firms (10%) have declared that they have a specific technology strategy to support the overall business strategy. Regarding their general attitude towards the investment in technology, only few of the managers of answered that the needed investment is very often an issue in his company if the market requires a particular investment. What was mentioned as problematic issues were the financial resources as a very relevant factor for the new technology decisions. Very often the regular budgets are quite limited. Regarding the research and development budgets, 16(34%) of the managers reported their regular budgets for these purposes, limited budgets for R&D have 19(40%), while other 16(34%) have no R&D budget at all.

One of the main driving motivation to invest in advanced technology was to gain competitive advantage and to increase their operational efficiency (70%). Improving employee productivity was marked by 50%, followed by profitability and improving customer care respectively with 50%, while increasing market share was indicated as the most by 35% of the managers. Very few firms (17%) have chosen employee satisfaction as reason to invest in advanced technology.

We have also investigated the perceptions about the benefits that SMEs have from advanced technology. When asked about the main benefits from the usage of advanced technology, the most cited benefit as a result of advanced technology use is the opportunity for market expansion and facing with competition (80%). The second rated answer from the surveyed managers is improved operations and quality of service (75%) while advanced collaboration with customers and suppliers is experienced by 53% of managers. Close to 48% of the managers cited, cost reduction as the main benefit, followed by increased productivity.

In the following section, the main question in focus is how advanced technology affects more specifically the aspects such as costs, sales and profitability, employee productivity, customer care, share of the e-market and competitiveness. Asked about the cost reduction brought by the advanced technology, answers were split between 28% of the surveyed managers, who put forward the reducing the cost of the inventory, 33% who indicated on the advertising and distribution and 32% who think that it is the reduction of the total cost. We also questioned the impact of advanced technology on increasing customer care and the responses have indicated the greatest influence on the fulfillment of the requirements of customers/ partners, such as increasing loyalty and consumer confidence. The impact on sales was elaborated thorough to its major effect on impact on reducing the cost of offering sales (35%), identifying the needs of consumers (27%), increasing sales due to suggestive products and services (20%), and lastly on rising sales. On the question how advanced technology influences on increasing profitability the respondents see that it mostly increases net profit, due to the increased time and increased efficiency of employees. When it comes to the question how advanced technology affects the employee productivity, the answers provided have indicated the greatest impact on internal vertical communication, horizontal communication and as

well as the on the efficiency increase. For the question how does the advanced technology impacts on increasing share of the e-market, participants respondents see most benefits thorough a better positioning on the market, acquiring new Internet access partners and identifying the most profitable customers / partners. Lastly the respondents were asked about the impact of the advanced technology on their competitiveness. Most of the companies (54%, 25 companies) had major effect on their competitiveness, followed by those which experienced moderate effect on their performance (44%, 21 companies). On the other hand very few companies (2%, 1 company) reported either minor changes or no changes to their competitiveness.

Conclusion

Advanced technology is crucial to SMEs if they seek to increase their effectiveness and productivity. Through increased usage, they can reduce operating costs, but also the use of quality information could result in an improvement in the value of their output. Using new technologies facilitates the global connectivity of companies and provide new ways of delivering products and services. The new business strategies empowered by the development of advanced technology enable to small and medium-sized companies' access to new markets and new sources of competitive advantage, which are the basic conditions for growth.

This paper has intended to explore the perceptions and practices of Macedonian SMEs managers' regarding the application of advanced technology in their companies and the benefits thereof. According to the results of the survey, a positive aspect is that most of the SMEs already use some kind of technology in their business operations. Encouraging is the fact that the small and medium-sized companies recognize the benefits that they would gain by applying advanced technologies, such as to opening new business opportunities, cost efficiency, increased productivity, increased competitiveness etc. All these benefits will enable increased growth and development of small and medium-sized companies and thus of the overall economy of N. Macedonia. The results have also shown that overall the managers find important to invest in advanced technology, whereby the main motivation is related mostly with creating competitive advantage and increasing the operational efficiency, followed by improving

employee productivity, profitability and improving customer care respectively. However, although the managers SMEs, in general, are motivated to invest in advanced technology, there is a lack of technology strategy to be updated with new strategic management trends. With regard to awareness of the benefits of the technology strategy, almost all of them use and invest in advanced technology lacking the vision of strategic core competence. Indeed, the findings of this work show that though the applicability of technology strategy is not widespread at the highest level among SMEs; albeit, the better integration of strategic management within the technology usage and implementation is overwhelming and SMEs who pursue it can expect further enhancement in the level of performance. Lastly, while SMEs should continue with the intention of adopting new advanced technologies to achieve greater competitiveness, growth and development of companies, the Macedonian Government should also foster its efforts to create an environment that will be good enough to stimulate the application of advanced technology and provide support to small and medium-sized companies in their aggressive usage and implementation in their operations.

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THE END PRODUCT OF THE IMAGINE DRAGONS' AND LADY GAGA'S MUSIC, OR THE NATURE OF MARKETING MIX IN THE MUSIC INDUSTRY

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ABSTRACT. It is a fact that consumer behaviour changes according to the decisive events that occur in people's lives. More precisely, they buy different products or services when events such as marriage, childbirth or the loss of a family member occur. Music, on the other hand, is a service product which use does not change depending on what events occur in people's lives. In fact, there are songs that are required at weddings, christenings and funerals. This article examines first of all (a) what defines the songs of Imagine Dragons and Lady Gaga, more specifically (1) the source of their emotions in their songs, (2) what these songs provide beyond emotions and how these things materialize, (3) what they convey to society, as well as (b) how marketing mix elements are represented in the music industry.

Key words: *music, marketing-mix, Imagine Dragons, Lady Gaga, end product, personalization*

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Introduction and Review of Literature

Music has been an integral part of society for many centuries, as "approximately 70,000 years ago, all music was popular, in so far as it was shared and enjoyed by all members of a society" (Blacking, 1981, p. 9), therefore songs – as many other products/services - have taken various forms. According to research by North, Hargreaves and O'Neill, listening to pop music is far more popular than listening to classical music. In fact, listening to classical music offers only one perceived advantage over pop music: the positive perception of music by teachers and parents regarding listening to this genre (North, et al., 2000). However, the question arises: what is the impact music can have.

(A) Music products not only provide light-hearted feelings or entertainment but also, in many cases, have deep thought-provoking content. There are even songs that can have a drastic impact on people's lives. The (perhaps) best example of this is the song *Gloomy Sunday* by the Hungarian lyricist Pál Jávor. The song has also attracted the attention of singers/bands like Billie Holliday, Marianne Faithfull, Sinead O'Connor, Björk, Sarah McLachlan, Diamanda Galas, Heather Nova, Sarah Brightman, Sarah Vaughan, Matt Forbes and Tunes of Down. According to some, the song can be linked to 17 suicides in Hungary and up to 200 worldwide (available at: https://retrolegends.hu/ 2013/12/10/szomoru-vasarnap-a-gyilkos-dal/). It is true that there are many questions about the song, but it is also a fact that *Gloomy Sunday*[3] also had a profound influence on Rezső Seress (composer/performer), who committed suicide in 1968 (at the second attempt), and this song has been added to music history as a "suicide" song (Horváth, 2015, available at: https://www.szeretlekmagyarorszag.hu/az-ongyilkosok-himnusza-volt-a-szomoru-vasarnap/).

(B) A song, or even a melody, has the ability to take us back in time, and consequently, one of its peculiarities is that it recalls the

[3] My darling come on last Sunday,/There will be a priest, a coffin, a catafalque, a cerecloth./Even a flower will wait, a flower and a coffin./Under blooming trees this path will be the last./My eyes will be open to see you last time./ Don't be afraid of my eyes, giving my blessings even if I will be dead ... (Lyricist: Jávor Pál, composer/performer Seress Rezső)

past (there are many comments on YouTube that support this statement). Furthermore, music appears as an opportunity in the lives of those people who are no longer able to express their needs through words and gestures, so music can make a significant contribution to the acceptance of the aging process (Hays, 2005). Hays and Minichiello's research has shown that in the lives of older people (aged 60 years and older), music is nothing more than "ways of understanding and developing their self-identity; connecting with others; maintaining well-being; and experiencing and expressing spirituality" (Hays and Minichiello, 2005, p. 437).

(C) A musical work can influence our mood and we can choose a song based on our mood, but listening to music is also common during other activities (Chamorro-Premuzic and Furnham, 2007), because music (more and more) is used as leisure goods, as a resource of everyday life (North, et al., 2004). Music offers people an alternative way of solving everyday problems (Hays, 2005): "music therapy could reclaim music for everyday life as a central force in humanizing culture" (Ruud, 2008, p. 58).

(D) Nor can we overlook the fact that the content of a video clip made for a particular song can influence the formation of social values. Based on Wallis's research, he concluded that "significant gender displays primarily reinforced stereotypical notions of women as sexual objects, and to a lesser degree, females as subordinate and males as aggressive" (Wallis, 2011, p. 160),

(E) Music can also play a significant role in the process of socialization, as it may be one of the most popular topics when two people who do not know each other initiate conversation (Rentfrow and Gosling, 2006).

(F) The relationship between music and politics is not new either. The relationship between these two is defined by dimensions such as "the organization of the link, its legitimation and its cultural performance" (Street, et al., 2008, p. 269).

(G) A melody has a well-defined role in the economic sphere, as a melody plays an important role in the promotion of a given product, because "music is increasingly used as a stimulus in the retail environment as well as in radio and television advertising" (Bruner, 1990, p. 94).

Material and Method(s)

- The end product refers to (1) the emotions[4] that come from listening to a song, (2) all the phenomena it provides beyond the emotions, and (3) its message.
- Songs by the band Imagine Dragons and singer Lady Gaga were included in the analysis. They were chosen because (1) the performers are relatively young[5], (2) have special characteristics, (3) they are one of the best known representatives of the alternative rock band and the pop genre, (4) both Dan Reynolds and Lady Gaga are songwriters and (5) both genders are thus represented.
- Older and newer (2018) songs were selected in case of both artists. The song *It's Time* by the Imagine Dragons (because it helped Dan Reynolds get over the time he was struggling with depression and anxiety), (available at: https://kozepsuli.hu/5-dolog-amit-tudnod-kell-az-imagine-dragons-zenekarrol/), as well as the song entitled *Natural*. On the other hand, the song *Bad Romance* by Lady Gaga was included in the analysis, because this song can be considered her ars poetica (Kiss, 2012) as well as the *Shallow* song.
- Content analysis was based on the YouTube video-sharing website.
- Only English comments were analysed.
- The song reviews were collected on the same day (21.08.2019), collected by the same person in order to eliminate multiple perspectives that would lead to distortion.
- In case of each song the first 300 comments served as the basis for subsequent content analysis. In addition, only those comments with explicit content were analysed, either referring to the song or to the video clip.

[4] The basic emotions defined by Paul Ekman form the basis of the analysis, which are: joy, sad, angry, surprised, fearful, disgust (available at: https://asszertivakademia.hu/erzesek-listaja/).

[5] We chose the younger generation because their songs are obviously aimed primarily at young people and can thus influence the formation of social values.

- Comments referring to the rating of the song or the video clip were not included in the analysis, as the following points of analysis were taken into consideration: (1) what emotions are triggered, (2) what they provide beyond emotions, and (3) what is the most important line in the lyrics (quoted lines were included in the analysis; they were clearly related to the content of the song; they were not part of the communication between comment writers).
- The terms used in the analysis, namely: band, singer and performer are considered of equal reference, as well as the musical product refers to songs and video clips - as the complexity of musical productions and their creative execution is becoming increasingly important in the music industry.
- At the beginning of data collection:
  - the Imagine Dragons *It's Time* (Official) song had a total of 425.386.580 views, and 73.449 comments; while the *Natural* (Official) song had a total of 270.233.150 views, and 125.033 comments,
  - Lady Gaga's song *Bad Romance* (Official) had a total of 1.092.398.732 views, and 806.611 comments, while the song *Shallow* - performed together with Bradley Cooper (in the movie *A Star is Born*) - had a total of 134.585 comments and a total of 666.294.231 views.

Results and Discussions

The elements that determine marketing are also important in the music industry. Not only the classic marketing mix elements (product, price, distribution, promotion) but also the extended marketing mix elements (people, physical evidence, processes, consumer/other consumer) have their justification.

The first step was to analyse the songs of Imagine Dragons and Lady Gaga. The content analysis was followed by a detailed analysis of the collected data, which can be used to more precisely outline the nature of each marketing mix element in the music industry.

The end product of the songs and video clips of Imagine Dragons and Lady Gaga

(1) The Imagine Dragons alternative rock band was formed in Las Vegas, Nevada in 2008 (available at: https://hu.wikipedia.org/wiki/Imagine_Dragons). The mix of tribal and electronic sounds gives the band a unique touch of rhythm (available at: https://antropos.hu/imagine-dragons-alternative-rock-nevadabol/). They also give concerts in arenas, stadiums, but (for them) it is "nicer" to perform in front of a smaller audience, because they get closer to the audience (available at: https://starity.hu/magazin/58331-9-erdekesseg-amit-nem-tudtal-az-imagine-dragons-zenekarrol/).

In the next section the songs of Imagine Dragons: *It's Time* and *Natural* are presented, with reference to the end products.

Table 1. The end products of the songs and video clips of Imagine Dragons: *It's Time* and *Natural*

It's Time	Natural
• causes sadness (1)[6], • provides happiness (2), • touches emotionally (1), • triggers feelings with physical signs: tears (4), chills/goose bumps (1-1), • gives hope (1), • provides emotional support (9), • provides positive things (2 - specific things have not been identified by the comment writers), • contributes to the understanding of life/ helps to understand the meaning of different things (1-1), • gives you the opportunity to forget (to forget the responsibilities of adulthood -1), • gives strength (2), • motivates (2), • contributes to mental health (1),	• provides feelings (a) which are close to tears (1), (b) with physical signs: goose bumps (1), • motivates (1), • provides energy (2), • provides help in the process of finding/accepting one's true self (1-1), • presents the dark reality (1), • refers to the possibility of a fresh start and its achievability (1), • points out that nothing happens without consequences (1), • suggests that being a hunter is better than being chased/being the prey (1), • draws attention to the fact that deprivation of emotion appears as an opportunity for survival (2).

[6] Frequency of occurrence in comments

It's Time	Natural
• brings back the good old days (1), • refers to the inseparability of heaven and hell (1), • refers to the importance of staying true to ourselves (6), • refers to the inseparability of home and true love (1).	

Source: Comments on YouTube regarding Imagine Dragons' music products: It's Time *and* Natural

In our opinion:

- in the song *It's Time* the possibility to restart life is an eternal opportunity, even if someone is already at the bottom of the pit. The importance of letting go in life is also apparent in the lyrics of the song (*"Don't look back"*) in order to stay true to ourselves. The Imagine Dragon admits that the road we choose or the road which is assigned to us is a lonely one, and that loneliness will become more and more powerful and stronger, but faith helps prevent destruction of the self. The video clip of the song is a true reflection of the song. To throw light into the earth, like a seed, does not mean multiplying light but destroying it (there is no heaven without hell).
- in the song *Natural* they bluntly suggest that everything we do has a price or comes with a consequence. Letting go, being free of emotions, being separated from external factors is probably the only way we can protect ourselves from the world around us. They openly express their opinion that the role of the predator ensures survival. The song draws attention (*"Cause this house of mine stands strong"*) to the power of faith in ourselves, however, its main theme is the conflicting process of searching and finding ourselves. The directness of the lyrics is also reflected in the video clip of the song, as the video clip also bluntly announces the inevitability of death. There is nothing artificial or fake about how they confront their fans with the reality.

The songs of Imagine Dragons do not manipulate reality, the singers do not write songs, nor do they make video clips that depict the sunny side of life. Their songs have a deep moral to tell, but at the same time there is something elusive in these songs that grabs the attention of the audience (at least those who love their songs).

(2) Stefani Joanne Angelina Germanotta, aka Lady Gaga, an Italian-born American singer-songwriter and actress, made her 2008 debut with the album *The Fame*. Provocative behaviour is not far from the singer, and it is present in the content of her songs as well as in her video clips. Clothing is also very important for Lady Gaga. Lady Gaga has elevated her style to a level that has already become a personal trademark (her dress made of raw beef, commonly referred to by the media as the meat dress, stirred controversy worldwide). Together with the Yale University, she was present at the Emotion Revolution Summit in 2012, where she gave a lecture to young people on the importance of emotions (available at: https://hu.wikipedia.org/wiki/Lady_Gaga). According to Kiss, "Lady Gaga is constantly revealing her attraction and rejection (...) towards the rejected, marginalized, non-aesthetic cultural backgrounds, fields and beyond all these she expresses a form of sexual distortion" (Kiss, 2012, p. 39).

In the next section the songs of Lady Gaga's *Bad Romance* and *Shallow* are presented, with reference to the end products.

Table 2. The end products of the songs and video clips of Lady Gaga: *Bad Romance*, *Shallow*

Bad Romance	**Shallow**
• provides feelings with physical signs: goose bumps (1), • teaches (1), • helps finding one's true self (1), • depicts society (definition of ahead of this time (4), • refers to total acceptance (1), • draws attention to equality (1), • emphasizes that there is no constraint in relationships: "*I want your everything as long as it's free"* approach/principle (1).	• touches emotionally (3)/hits deep (1)/makes break in every emotion (1), • provides feelings with physical signs: tears (6), chills/goose bumps (1-3), • suggests a feeling that heaven is near (1), • provides feelings to make life enjoyable (1), • provides support (1).

Source: Comments on YouTube regarding Lady Gaga's music products Bad Romance *and* Shallow

According to our opinion:

- the song *Bad Romance* shows "bad romance" as a real need. The video clip for the song is more than surprising. The woman is portrayed as an object of use, emphasizing male dominance.
- in the song *Shallow*, the desire for more, the thirst for change appear as realistic needs, because even in best times there is the desire of something else, in worse times there is fear. One of the hardest fights we can fight in our lives is about how to overcome the fear of ourselves (the state of *"And in the bad times, I fear myself")*. The video clip illustrates an eternal theme: love being not pain free. The motorcycle appears as a symbol of freedom and the wedding as one of the most important moments in life. The whole video is characterized by naturalness and clarity.

Lady Gaga has undergone a major transformation. While at the start of her career she was more about to "shock" her audience, her latest song with Bradley Cooper is characterized by true naturalness. The question is whether Lady Gaga has consciously cultivated this change or simply immersed the audience into the process of personal transformation. However, it can be noted that this change has been received as a kind of surprise.

Classic and extended marketing mix regarding music products

(1) Service product: the songs of Imagine Dragons (*It's Time, Natural*) trigger happiness or sadness in the same way. The analysed musical products/songs give hope, provide support, strength and energy; at the same time they contribute to understanding life, they also motivate and help forgetting the hard times, as well as help finding or accepting ourselves. They also point out that: (a) to be true to ourselves: to keep the values that define us, not to give up for anyone, for anything, (b) there is no heaven without hell, (c) all actions have consequences (s), but the opportunity to restart is always there, and (d) one of the prerequisites for survival is to be free of emotions, and being a hunter is better than being the hunted or the prey. Lady Gaga's music productions

(*Bad Romance, Shallow*) provide support, also teach and help us, the audience, to find ourselves. The song *Bad Romance* draws attention to equality and the song also implies full acceptance of life and society around us. Interestingly, happiness and sadness did not appear literally as concepts in the comments. Nevertheless, this does not mean that the songs would lack any emotion. All in all, listening to any song can encompass many forms of human behaviour, as it evokes basic emotions, provides support, triggers motivation, educates people, and gives strength. At the same time, in our opinion, one of the most important value/end product of a song is nothing else than hope giving. In addition, a song can draw attention to certain things, and by becoming aware of these will help to understand/accept ourselves and the outside world as well.

(2) Price/charge: the impact of changes in the technology environment is not negligible as far as the application of price/charges in the music industry is concerned. Of course, this does not mean that this classic marketing mix element no longer plays a role just because it requires a different approach. However, paying for attending a concert is just as costly, and the price of the ticket can even predict the quality of the concert.

(3) Distribution: placement can be very important as it has to be the optimal solution for the consumer/customer (Vorzsák, 2005). Music outlets, record stores used to play a significant role in the music industry, however, their role has declined nowadays, despite the fact that there are stores selling vinyl records to those interested. Changes in the technology environment have also influenced these marketing mix elements (YouTube), and selling concert tickets has moved to online platforms as well. Consequently, defining the nature/intensity of the relationship between price/fee, distribution and technology is necessary.

(4) Marketing communication: communication in the music industry is very intensive and very diverse. The media, especially the social media, play an important role in fostering the relationship between performers and the audience. In addition, Lady Gaga's theatrical invitations that she meets, as well as being featured in fashion shows, are part of the communication channel. Furthermore, the actors in the music industry are part of the communication with every step they take. Lady Gaga, for example, tattooed “Little Monsters” on her arm in February

2010, in order to ink her love for her fans. Little Monsters is the name given by Lady Gaga to her fan base. Lady Gaga donates to the needy (victims of the Haitian disaster) or helps fight AIDS and HIV with Cyndi Lauper. In 2011, she set up a foundation (with her mother) to prevent abuse and suicide. Since 2016, she has been fighting online bullying. Protecting and supporting young people is also a priority in Gaga's life (available at: https://starity.hu/sztarok/lady-gaga/eletrajz/). Imagine Dragons founded the Tyler Robinson Foundation in 2013 to help families who are financially unable to meet the unexpected costs of childhood cancer. However, they also support other charitable foundations (GLAAD, Love Loud Foundation, Multiple Myeloma Research Foundation, Musicians on Call) and advocate for issues such as: cancer, civil rights, health, LGBT (available at: https://www.looktothestars.org/celebrity/ imagine-dragons).

(5) People: the band members, the crew and staff they work with, the backup singers all influence the quality of the musical productions, but the frontman is the one who gives the direction. And one of the greatest assets of a performing artist is his or her personality (apart from the basic attributes, of course), because they can make marketable what they represent. For the service to be successful and for consumers to leave the concert contentedly, something else is needed besides the average and usual. Different from the average may be the performance, the dance choreography or the various show elements. Lady Gaga's concerts (at least so far) are not characterized by modesty. At the same time, we have to mention the fact that there are performers who impress the audience with their simplicity and clean presentation. We could also say that the personality of the performer really defines the quality of the performance, something that differentiates itself from other performers.

(6) Consumer/other consumer: in the case of a concert, service provision and consumption are inseparable and occur simultaneously. What is more, there is an interaction between the service provider and the consumer, and thus the consumer becomes a co-supplier who devotes time and effort, which is an input without which service delivery cannot take place and becomes meaningless (Vorzsák, 2005). In the case of concerts, the role of other consumers and other spectators is not negligible

as they are also involved in the creation of the service. Consequently, the impact of the behaviour of other consumers on the quality of services perceived may be significant. However, one should not ignore the fact that the judgment of a particular concert/song can be quite biased. The subjectivity, the effects that exert their validity, and the way they are experienced depend heavily on the consumer / customer. Bon Jovi's concert (July 21, 2019, Bucharest) has given satisfaction as well as provoked dissatisfaction among the audience (ProTV - News).

(7) Processes: in the music industry, processes are nothing more than ways for the performers to convey their message to the consumer/ client and refer to the way the performers can make their message part of the service product. The extent to which consumers/clients engage in the process is highly dependent on the performer, and more specifically the extent to which he/she uses active client policy.

(8) Physical evidence: the physical environment is the environment in which the service is provided. In the music industry, the need of "being part of it" is still fulfilled the physical environment, whether it is a stadium, a concert hall or a theatre. Of course, the nature of the concert has a great influence on the choice of physical environment, but the nature of the physical environment also affects the nature of the concert. In addition, physical evidence, such as various show items or even the performer's attire, can contribute to the impression of perceived quality. A concert that is organized in a stadium has a different character compared to one that is organized in a smaller venue, thus the level and intensity of the impressions felt by the clients may be altering. Both the Imagine Dragons and Lady Gaga organize large and small concerts/ performances in order to get closer to the audience and create an intimate atmosphere.

Conclusion

In the present study we tried to define what music performers would like to convey by their songs and what consumers/customers find and feel when listening to a song. However, we believe that this approach is not justified in this form, as consumers are able to

personalize the song by reading between the lines, interpreting the message from their point of view, since the interpretation of the song depends primarily on their experience, and these experiences may never match those of the artist, even if they are very similar. Due to the individual approach in the music industry there is no mass marketing, segmentation or even niche, as the unique interpretation of any song makes each song very personal and needs a unique and personal approach of the consumer. However, there are times when the message of the songwriter is accurately decoded by the target audience: see Dan Reynolds testimony that the song *Natural* is about finding yourself and about being able to stand up and face any difficulty (Ivánczi, 2018, available at: https://shortscore.net/2018/07/18/natural-friss-dallal-jelentkezett-az-imagine-dragons/). Consequently, the end product of a song is determined by the customer, but the personality of the artist/lyricist is also required in order to become a potential end product.

Based on the research it can be concluded that:

- the end products of Imagine Dragons' songs are the following: (1) emotions: happiness and sadness, (2) providing things without which there is no progress/ development: hope, oblivion, support, strength/energy, motivation, mental health, understanding processes in life, finding one's true self, and (3) consolidating the importance of loyalty to oneself and preparing for the outside world, and as a result, there is a chance of survival,
- the end products of Lady Gaga's songs include: (1) providing things without which there is no progress /development: support, learning, finding one's true self, and (2) accepting the importance of equality.

According to the analysis, the end product of Imagine Dragons and Lady Gaga's songs is all about finding one's true self. Interestingly, even though the Imagine Dragons is an alternative rock band that has a lower popularity, (taking into consideration the number of songs included in the analysis - and the number of comments is even much lower), it has still provided more end products (at least based on the analysed comments) than Lady Gaga's songs.

Nowadays, it is a real challenge if a band/singer wants to differentiate themselves from their "competitors". Imagine Dragons employs a version of rawness that conveys their views and messages that sets them apart from other alternative rock bands, but at the same time it is not offensive, nor discouraging (at least not for its fans). Lady Gaga, on the other hand, creates shocking and surprising phenomena in order to differentiate herself from other artists. Indeed, everyday life events act as source of these songs, and the message of one song can be found in the lyrics of other songs as well, but that does not deprive them of their value, as in such cases they play the role of reinforcement advertising.

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HUMAN CAPITAL EFFICIENCY AND PROFITABILITY OF QUOTED INTEGRATED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT. Human capital represents the engine that drives the entity and the foundation on which organizational success rests. This study examines the impact of human capital efficiency on profitability of five Integrated Oil and Gas companies in Nigeria between 2008 and 2017. This was examined by means of value added intellectual coefficient (VAIC) and it analyses how human capital efficiency affects the profitability of these firms measured by return on assets (ROA) and return on equity (ROE). Multiple regression technique was applied on data to draw inferences using STATA Version 13. The finding of the study reveals that Human capital efficiency has positive and significant impact on the ROA of the firms under study. Based on the findings of the study, it is therefore, recommended that integrated oil and Gas companies in Nigeria should continue to invest more on their employees in order to improve their performance. The study also recommends that Human Capital should be treated as the most valuable asset of integrated oil and Gas companies in Nigeria.

Keywords: *human capital efficiency, return on assets, return on equity, value added intellectual coefficients.*

JEL classification: J24; G19

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Introduction

Human capital represents the engine that drives the entity and the foundation on which everything rests. In modern times, where tangible assets are no longer the only resources that generate profit for organization, investment in intangible capital which is hidden in an organization to create value for it and enhance its performance is important for an organization. The achievement of organization goals depend to a large extent on the availability of intellectual and operational know-how, customer and supplier relationships, a committed workforce, and other intangible assets. To achieve the objective of coordinating other forms of intellectual assets, there is need for proper and adequate investment in human capital. OECD (2008), state that using only tangible/ physical assets in measuring investment may lead to inefficient policymaking, misallocation of resources by managers and increased cost of capital for investors. Therefore, if organizations consider intellectual capital as investment, instead of expensing it, the problem of adequately measuring and valuing firms will be overcome. Human capital as an intellectual property relates to the knowledge and experience used to create value for an organization. Knowledge being the new engine of corporate development has become one of the great methods of recent years, given that value can be generated by intangible assets. Human capital is seen as the knowledge embedded in the minds of all employees. Profitability is the ability of a given instrument to earn a return from its use. It is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. Profitability shows the degree to which a firm's revenues exceed over cost.

Yusuf (2013) opines that the importance of human capital and its measurement has been increasingly considered in order to manage this intangible asset and reduce its costs while improving its benefits. Becker,

Huselid and Ulrich (2002) state that human capital performance is the extent to which employees contribute to effective implementation of the organization strategy. They believed that human capital performance is indeed performance behaviors that affect customers buying experience and therefore it is the basis of the company's financial performance. Using balanced scorecard terminology, Kaplan and Norton (2004) assert that human capital is a leading indicator and the main source of value creation for companies. Improvement in human capital performance will positively affect internal process, customer and financial results of the companies. Measuring human capital efficiency has become an essential issue for companies in today's business world and may help them to get the right perspective on human capital in being valued based on its performance. Using a proper performance measurement tool could provide the firms with the necessary information for creating an action plan in order to improve human capital contribution to the organizational success.

Danjuma and Akinpelu (2016) examine the impact of Human Capital Efficiency on Corporate Performance of industrial goods companies listed in the Nigerian Stock Exchange Market for a period of 6 years (2009-2014). The effect of Human Capital Efficiency on Performance was examined by applying the Human Capital component of the Value Added Intellectual Coefficient (VAIC) methodology. The study adopted multiple linear regression models to analyse the impact between the dependent variables and the independent variable. The result showed that Human Capital Efficiency has positive significant impact on ROA and EPS, and an insignificant negative relationship is found between human capital efficiency and size, lagged Human Capital Efficiency and Number of Employee Growth. The study covered only six years period as well as from 2009-2014.Yusuf (2013) examines the relationship between human capital efficiency and financial performance of banks in Nigeria from 2006-2010. Two hypotheses Human capital efficiency has no significant impact on the EPS of Nigerian banks and Human capital efficiency has no significant impact on the ROE of Nigerian banks were tested. The study adopted VAIC models. The study found that efficient utilization of human capital does not have any significant impact on the return of equity of banks. This present study covers a ten years period from 2008 up till 2017 which depict the current happening in the Nigeria stock market.

This study therefore seeks to empirically examine the impact of human capital efficiency on profitability of integrated oil and Gas companies in Nigeria from the 2008 to 2017 by adopting Pulic (1998) VAIC model.

The following section includes literature review concerning the main variables of the study as well as conceptual and theoretical framework. The research methodology is presented in section three. The results and conclusion and recommendations are discussed in sections four and five respectively.

The concept of human capital

Human capital is defined as the sum of knowledge, skills, creativity and personal values of the employees which contribute towards both the tangible and intangible assets of the firm and can be improved by training and other similar seminars. Human capital (HC) consists of skills and knowledge possessed by employees and goes with them when they leave the firm (Cater and Cater, 2009); such intangible capital cannot be retained by the firm. Subramaniam and Youndt (2005), opine that human capital is the key resource of the firm in an era where knowledge and skills of the employees are essential to create a sustainable competitive advantage. HC theory further explains the importance of HC as a major driver of a firm's productivity and assesses the employees' possession of necessary skills and knowledge to fulfill the requirements of their jobs. HC is important in industries such as banking and pharmaceuticals where firms compete in innovation and advancement. These firms need employees who possess innovation and problem solving skills. Hsu and Wang (2012) argue that a firm can improve its performance so long as its employees continue to improve their knowledge and skills because HC focuses on the value addition to the business in terms of profitability. HC contributes towards organizational efficiency in many ways such as decision making, which improves when employees possess the required skills.

The concept of profitability

The word 'profitability' is composed of two words, namely; profit and ability. The term profit is an excess of revenues over associated

expenses for an activity over a period of time whereas, the term ability indicates the power of a firm to earn profits (Nimalathasan, 2009). The ability of an enterprise also denotes its earning power or operating performance that is, the business ability points towards the financial and operational ability of the business. So, on this basis profitability may be defined as the ability of a given instrument to earn a return from its use (Nishantini and Nimalathasan, 2013). It is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. Profitability shows the degree to which a firm's revenues exceed over cost.

Review of related empirical studies

Kamath (2008) investigates the efficiency of IC and its relationship with the financial performance of firms in the Indian pharmaceutical industry for 10 years (1996- 2006), the author used VIAC to measure the efficiency of IC. The results reveal that domestic firms are relatively more efficient in using IC. The results also reveal that only human capital is closely associated with the profitability and productivity of the firm in terms of ROA and assets turnover, respectively. Ting and Lean (2009) study the impact of IC on the financial performance of financial institutions in Malaysia. Data from annual reports of Malaysian financial institutions were used to measure IC for the period 1999-2007. The results reveal that VAIC is significantly positively correlated with a firm's financial performance in terms of ROA. Further analysis of the individual components of VAIC shows that human and physical capitals significantly contribute to the added value. Kamalauddin and Abdul Rahaman (2009) examine the effectiveness of organization through human, relational and structural capital. Descriptive statistics, correlation and regression analysis were the statistical tools used in the study. It was found that among the intellectual capital components, structural and relational capital significantly influenced the organization's effectiveness, with structural capital being the strongest predictor. Maditinos, Chatzoudes, Tsairidis and Theriou (2011) measure the efficiency of IC and its impact on the financial performance and market value of firms listed on the Athens Stock Exchange for the period 2006-2008. The study reveals no significant relationship between VAIC and market value and firm financial

performance. However, the authors argue that these results are not surprising because of some alarming characteristics of the Greece economy, such as the low level of foreign direct investment, an inefficient capital market and huge public sector holdings, which may have caused the low IC efficiency. The results can also be as a result of the numbers of years used in the study.

Perera and Thrikawala (2012) investigate the impact of investment in human capital on financial performances of the companies in Sri Lanka for the period of 2 years from 2009 to 2010. The study used sample 40 companies listed under Colombo Stock Exchange. Data analysis was carried out with aid of SPSS (Statistical Package of Social Sciences). The study revealed that there is a significant relationship between investment in human capital and firm financial performance. Kamal, Mat, Rahim, Husin and Ismail (2012), examine the efficiency of IC and its association with the financial performance of 18 commercial banks publicly traded in Malaysia. The study revealed that only physical capital is significantly positively correlated with a firm's performance. The result showed that human capital efficiency has negative impact on ROA and ROE, which means that an increase in human capital efficiency leads to a decrease in ROA and ROE, which contradicts the basic theory of IC.

Yusuf (2013) examines the relationship between human capital efficiency and financial performance of banks in Nigeria from 2006-2010. Two hypotheses Human capital efficiency has no significant impact on the EPS of Nigerian banks and Human capital efficiency has no significant impact on the ROE of Nigerian banks were tested. The study adopted VAIC models. The study showed that using human capital in an efficient way does not have any significant impact on the return of equity of banks. Also, the study showed that size of the bank has no significant impact on it return on equity, the study went further to state that return on equity of banks cannot be predicted by human capital efficiency and size of the banks. The results of the study may be as a result of the number of years and banks used in the study. Sumedrea (2013) investigates the effect of intellectual capital and its influence on the economic performance based on the VAIC model. The results were obtained by applying certain regression models and suggest that, in crisis time, the development of companies is influenced by the human and the structural capital, while profitability is additionally linked to the

financial capital through the value added intellectual capital coefficient. Gigante (2013) examine the impact of IC efficiency on the performance of nine European countries for the period 2004 to 2007. The revealed that study that the mean IC efficiency scores for Finnish banks are highest, *i.e.* 12.23, and 1.88 for German banks being the lowest. Further analysis shows that human capital efficiency for banks in Finland is again the highest. The study reveals that IC efficiency is significantly correlated with the financial performance of banks in terms of ROA and ROE. However, the study revealed that there is no correlation between IC efficiency and market valuation in terms of the M/B ratio of the banks.

In a study on IC efficiency and its impact on financial performance of pharmaceutical firms in India, Vishnu and Gupta (2014) extended the original VAIC model by including a new variable called relational capital (RC). The authors' results showed a positive relationship between IC and firm performance but the new variable RC fails to produce any significant relationship. ROA is the preferred dependent variable over ROS (Return on Sales). The study however, suggests adding more variables to the VAIC model and using new proxies to measure the variables. Parham and Heling (2015) examine the relationship between human capital and financial performance of Dutch companies. The study investigates the efficiency of Human Capital and its impact on the financial performance of Dutch production companies for a period of 6 years (2007-2012) and applying the human capital component of the VAIC methodology. The study applied multiple linear regression models to analyze the relationship between Human Capital and organizations performance. The study results showed that there is positive relationship between HCE and all three corporate performance measures.

Danjuma and Akinpelu (2016) examine the impact of Human Capital Efficiency on Corporate Performance of industrial goods companies listed in the Nigerian Stock Exchange Market for a period of 6 years (2009-2014). The effect of Human Capital Efficiency on Performance was examined by applying the Human Capital component of the Value Added Intellectual Coefficient (VAIC) methodology. The study adopted multiple linear regression models to analyze the impact between the dependent variables and the independent variable. The result showed that Human Capital Efficiency has positive significant impact on ROA and EPS, and an insignificant negative relationship is found between human capital

efficiency and size, lagged Human Capital Efficiency and Number of Employee Growth. The study covered only six years period as well as from 2009-2014. The findings of the study may be as a result of number of years used in the study. Ariff, Islam and van Zijl (2016) did not find a relationship between human capital and the performance of multinational R&D corporations listed on the U.S Stock exchanges. They pointed out the management's lack of control over the human capital may be an explanatory reason for the result. Nadeem (2016) investigates the IC-FP relationship in developed, emerging and frontier markets using over 7,100 listed firms for the period 2005-2014. The study applied the system generalized method of moments (SGMM) to overcome the problem of endogeneity and so produce unbiased results. The findings revealed that IC efficiency is highest for developed markets followed by emerging and lowest for frontier markets. The study also revealed that a significant positive relationship exist between IC and FP in almost all types of market. The result further revealed that the significant positive relationship between human capital (HC) and FP in static models disappears when SGMM is applied. The study also made some adjustments in the value added intellectual coefficient (VAIC) model and presents A-VAIC model to overcome criticism of the original VAIC model. We then test A-VAIC on developed and emerging markets and report more consistent results where HC is also significant and positive with FP in almost all markets. Furthermore, the results revealed that IC efficiency remained unchanged during the 2008 financial crisis. The final results, though endorsing RB, RD and OL theories, posit that IC increases FP in all types of economy (developed, emerging and frontier) and that investment in IC should be on-going process.

Rahim, Atan and Kamaluddin (2017) examine the relationship between human capital efficiency and firm's performance in Malaysian technology industry. The study applied Value Added Intellectual Coefficient (VAICTM) methodology developed by Pulic (1998, 2000) to measure human capital efficiency. The results showed that both Main Market and Ace Market show no difference in reporting their human capital efficiency. Also correlation analysis result indicates that human capital efficiency has significant and positive relationship with firm's performance. The findings of the study may be as a result of the nature of the environment in which the study was conducted. Ozkan, Cakan and

Kayacan (2017), examine the relationship between the intellectual capital performance and financial performance of 44 banks operating in Turkey between 2005 and 2014. The intellectual capital performance of banks was measured through the value added intellectual coefficient (VAIC) methodology. The results showed that there is a statistically significant positive relationship between HCE and ROA.

Theories of Human capital and profitability

Resource Based Theory

The resource based (RB) theory is considered the pioneer that focused on the importance of intangible assets for firms (Barney, 1991). The basic argument in this theory is that the competitive advantage of the modern firm should lie in its use of tangible as well as intangible assets. The intangible assets included in this theory should be unique and inimitable which and can build a sustainable competitive advantage for the firm.

Resource Dependency (RD) Theory

The advocates of this theory, Pfeffer and Salancik (2003), argue that every firm depends on several stakeholders such as other firms that hold strategic resources necessary for the operations of the firm. They argue that every firm cannot hold all strategic resources so they have to build long term relationships with those stakeholders who can assist the firm in terms of necessary resources. This necessity actually motivates the firms to engage with the external environment, which forms the basis of social and relational capital for the firms. Linking this theory with the human resources of firms, Abeysekera (2010) argues that firms' effective engagement with the external environment is possible only when a firm holds efficient internal resources such as human capital and learning environment. This argument is also consistent with Williams (2000) who argues that firms should utilize their available human resources effectively to increase the value creation capabilities of the firm. The resource dependency theory recognizes the importance of efficient human resources, which can help the firm to achieve the objective of building relationships with stakeholders.

Organizational Learning (OL) Theory

Njuguna (2009) argues that a firm should follow a continuous learning process to build a sustainable competitive advantage. This continuous learning is necessary for a firm for many reasons. Firms, for example, can get more know-how about their customers' demands and changing preferences about products. A firm should invest in its resources such as research and development and human resources, which enable a firm to innovate with products.

The underpin theories of this study is resource Dependency theory. This study fill existing gap in literature by examining the impact of HCE on profitability of quoted integrated oil and Gas firms in Nigeria from 2008 to 2017 using VAIC model.

Methodology

This study adopted ex-post facto research design because the data are available and the researcher has no control over it. The population of the study is the integrated oil and Gas firms quoted on the Nigerian stock exchange (NSE) as at 31st December 2017. A detail of the population is shown in Table 1. However, for firms to be part of the sample, there are some criteria which have to be met as follows: therefore, two point filters were employed to arrive at the working population of the study: i companies must have been quoted on the Nigerian Stock Exchange as at 1st January 2008 ii. Companies must not have any omission in its data during the period of the study. After the above filters, five firms made our population and were selected as sample of the study which is shown in Table 2. The sampling technique used in this study is census sampling technique because it allows all the elements in the population to be represented. Multiple regression technique was applied on data to draw inferences using STATA Version 13.

Due to the panel data used in this study, the models of the study were subjected to other regression models (Fixed and Random Effects) in addition to OLS, because of the uncertainty as to the conformity with the classical assumptions of the OLS regression model, as indicated by the normality test. The study therefore applied robust GLS regression in model 1 and robust-OLS regression for model 2 as suggested by the

relevant tests conducted on the data. For the purpose of conducting the research, Return on Asset (ROA) and Return on equity is used to measure profitability. The value added intellectual co-efficient (VAIC) methodology developed by Pulic (1998; 2000) formed the underlying measurement basis for the human Capital efficiency in this study.

Table 1. Population of the study

S/NO	NAME OF FIRMS	YEAR OF QUOTATION
1	OANDO PLC	1992
2	ETERNAL OIL PLC	1997
3	FORTE OIL PLC	1978
4	JAPAUL OIL AND MARITIME SERVICES PLC	2005
5	11 OIL PLC	1979
6.	SEPLAT OIL	2014

Source: author compilation

The table represents the total population of firms that engage in mid-stream activities in the Oil and Gas companies in Nigeria.

Table 2. Sample size

S/NO	**NAMES OF FIRMS**
1	OANDO PLC
2	ETERNAL OIL PLC
3	FORTE OIL PLC
4	JAPAUL OIL AND MARITIME SERVICES PLC
5	11 OIL PLC

Source: author compilation

The table represents the sample of firms selected for the study. One firm was omitted because it was quoted in year 2014.

MODEL SPECIFICATION AND VARIABLE MEASUREMENTS

This study adopted Pulic (1998) VAIC model to obtain the value of human capital efficiency.

$$FP_{it}(ROA, ROE) = \beta_0 + \beta_1 VAIC_{it} + \beta_2 Control + \varepsilon_{it}$$

The model is further subdivided into two as follows:

$$FP_{it}(ROA) = \beta_0 + \beta_1 HCE_{it} + Size_{it} + \varepsilon_{it} \text{ - (Model 1)}$$
$$FP_{it}(ROE) = \beta_0 + \beta_1 HCE_{it} + Size_{it} + \varepsilon_{it} \text{ - (Model 2)}$$

INDEPENDENT VARIABLES

Value Added Intellectual Capital

The VAIC calculations involve a two-step process (Pulic, 1998; 2000) where value added is calculated in the first step and VAIC is calculated in the second step.

In the VAIC model, total Value Added (VA) by the business can be calculated as:

$$VA_t = OUT_{it} - IN_{it} = Op_{it} + SC_{it} + D_{it} + A_{it}$$

Where VA_t= value added in year t, OUT= net revenue IN= cost of raw materials, energy, water, gas, services and other similar resources for the year t

HC_{it}= Staff cost, both salaries and related contributions of firm i in year t

Value Added intellectual Capital can be further refined to express human capital efficiency as follows:

$$HCE_t = VA_t / HC_t$$

CONTROL VARIABLE

Size =Natural Log of Total Assets

DEPENDENT VARIABLES

Return on Asset

Return on Assets (ROA) is the ratio of pre-tax profit divided by average total assets as reflected in the annual report. ROA is a comparison of net income over total assets. This accounting measure of performance is generally accepted as a valid measure of overall

company performance (Core, Holthausen and Larcker1999). The ROA provides information about the value added to the company that lead to better performance of that company.

ROA = Profit before Tax/ Total Assets

Return on Equity

The Return on Equity (ROE) is the after tax profit divided by book value of equity. It considers profit rates and not profit size. It represents the ultimate measure of how well the companies serve the economic interest of the shareholders. ROE reveals how much profit a company earns in comparison to the total amount of shareholders fund. ROE is a typical performance benchmark in many empirical studies (Abowd 1990; Main, Bruce and Buck1996; Kern & Kerr 1997; Core *et al*1999).

ROE = Profit after Tax/ Shareholders Equity

RESULTS AND DISCUSSIONS

The aim of this section present is to present, analyze and interpret the results gather for the study.

Table 3. Descriptive statistics

VARIABLES	MEAN	STD.DEV	MINIMUM	MAXIMUM	observation
ROA	0.1296	0.1383	-0.1750	0.6689	50
ROE	0.1538	0.3099	-0.6992	0.9076	50
HCE	10.9790	7.2787	3.3902	33.7757	50
FSIZE	17.1343	0.9279	15.511	18.8482	50

Source: Output of Descriptive Statistics by Authors using STATA

Table 3 presents the descriptive statistics of the study. The table reveals that ROA has an average of 0.12, standard deviation of 0.13, minimum of -0.18 and maximum of 0.67.ROE has an average of 0.15, standard deviation of 0.31, and a minimum of -0.69 and a maximum of 0.91. The table also reveals that HCE has an average of 10.9, standard deviation of 7.27, a minimum of 3.39 and a maximum of 33.77. Size has an average of 17.13, standard deviation of 0.93, a minimum of 15.51 and a maximum of 18.84.

Table 4. Correlation analysis

VARIABLES	ROA	ROE	HCE	FSIZE
ROA	1.0000			
ROE	0.3648* 0.0092	1.0000		
HCE	0.2619 0.0662	-0.2453 0.0860	1.0000	
FSIZE	-0.0721 0.6189	0.0991 0.4935	0.6539* 0.0000	1.0000

Source: Output of Correlation Analysis by authors using STATA

* Correlation is significant at 1% level of significance; **Correlation is significant at 5% level of significance; ***Correlation is significant at 10% level of significance

Table 4 shows the correlation results among the variables. The table revealed that HCE is correlated with performance the firms using ROA and ROE based on coefficients of 0.2619 and -0.2453 and significance value of 0.0662 and 0.0860 respectively. Firm size which is used as control variable also has no correlation with performance.

Presentation of Regression Results and Hypotheses Testing

This section presents and analyses the regression results of the models of the study. The hypotheses formulated for the study are also tested in this section based on the results, as presented in table 5 and 6.

Table 5. Summary of GLS Regression Results

Model One (GLS-Robust Random)		**Model Two (Robust-OLS)**	
Variables	**Statistics**	**Variables**	**Statistics**
R^2	0.1556	**R^2**	0.1779
Chi2(F-Stat)	5.91	**Chi2(F-Stat)**	3.54
P-Value	0.0522	**P-Value**	0.0369

Source: Output Regression Analysis by authors using STATA

Table 6. GLS regression estimators (coefficients)

Model One (GLS-Robust Random)			**Model Two (Robust-OLS)**		
Variables	**Coefficients**	**P-Values**	**Variables**	**Coefficients**	**P-Values**
HCE	0.0141	0.018	HCE	-0.0231	0.011
FSIZ	-0.0605	0.269	**FSIZ**	0.1514	0.039
CONSTANT	1.0113	0.270	**CONSTANT**	-2.1875	0.068

Source: Output Regression Analysis by author 2018 STATA

The results in Table 6 shows that human capital efficiency has a significant positive impact on the performance of quoted integrated oil and Gas firms in Nigeria using ROA as indicated by the coefficient of 0.0141 which is significant at 5% level of significance (from the P-value of 0.018). Based on this, the study rejects the null hypothesis one which state that, human capital efficiency has no significant impact on performance of quoted integrated oil and Gas firms in Nigeria using ROA. Therefore, the study infers that the more the firms increase her spending on its human resources, the more; it increases its performance using ROA. The study is in line the study of Danjuma et al. (2016); Nadeem (2016); Gigante (2013). The finding of the study however contradicts the finding of Yusuf (2013). On the other hand, the results shows a negative but significant impact between human capital efficiency and performance using ROE as indicated by the coefficient -0.0231 which is significant at 5% level of significance (the p-value of 0.011). Based on this, the study rejects the null hypothesis one which state that, human capital efficiency has no significant impact on performance of quote oil and Gas firms in Nigeria. Therefore, the study infers that the more the firms increase her spending on its human resources, the more; its performance decreases using ROE. The study is in line the study of Kamal et al. (2012). The finding however contradicts the findings of Danjuma et al. (2016); Kharal et al. (2014)

Firm size is used in this study as a control variable, shows a negative and insignificant impact on the performance of studied firm using ROA based on coefficient of -0.0804 and p-value of 0.209. The implication of this finding is that size of the firms has no significant impact on the performance of the firms. On the other hand, from the table, firm size has no significant impact on the performance of the firms using ROE based on coefficient of 0.1514 and p-value of 0.039.

The results from table also indicate that the independent variables of the study (human capital efficiency and the control variable firm size) explained 15.58% of the variations in the performance (ROA) of quoted Oil and Gas firms in Nigeria, from the coefficient of determinations (R^2 value of 0.1558). The table also shows that the model is fitted as evident by the Wald Chi2 of 5.92 which is significant at 10% level of significance (as indicated by the P-value of 0.052).

Also, the table shows that the independent variables of the study (human capital efficiency and the control variable firm size) explained 17.79% of the variations in the performance (ROA) of quoted Oil and Gas firms in Nigeria, from the coefficient of determinations (R^2 value of 0.1779). The table also shows that the model is fitted as evident by the Wald Chi2 of 3.54 which is significant at 5% level of significance (as indicated by the P-value of 0.0369).

CONCLUSION AND REOMMENDATIONS

Conclusion

This study examines the impact of human capital efficiency on the profitability of five Integrated Oil and Gas firms in Nigeria between 2008 and 2017. This was examined by means of VAIC model and it analyses how human capital efficiency affects the profitability of these firms measured by ROA and ROE. The findings of the study suggest that human capital efficiency has positive and significant impact on the ROA of the firms under study. However, a negative but significant impact is found with ROE.

Recommendations

Based on the finding of the study, which shows that HCE has significant impact on ROA, it is therefore recommended that oil and Gas firms in Nigeria should continue to invest more on their employees in order to improve their performance since employees have been seen as assets that can generate revenue and enhance the performance of an organization positively. The study also recommends that Human Capital should be treated as the most valuable assets of integrated oil and Gas firms in Nigeria. To ensure improvement in employees' productivity and performance, organizations should be committed to regular training and development of their employees and ensuring the working environment is conducive to enhance their productive capacity.

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