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THE MODERATING ROLE OF FACTORS THAT INFLUENCE USER ADOPTION OF MOBILE HEALTH APPLICATIONS: EVIDENCE FROM JORDAN

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ABSTRACT

This research aims to identify factors that influence the intention to use mobile health applications (MHAs) as moderated by the health status of Jordanian users. A survey questionnaire was used to collect the primary data. Forty-four elements operationalized and measured the independent, dependent and moderating variables. The open sample was distributed to 562 mobile health application users and 527 were returned implying a 94% response rate. Statistical processing was implemented to answer research questions and test the research hypotheses. The results showed that system quality, information quality, ease of use, usefulness, entertainment, and social Influence have a statistically significant effects on the intention to use mobile health applications. The results show moderating factors that influence the intention to use MHAs packages. Moderating factors include Information quality, Usefulness, Ease of use and Social Influence. Factors that did not moderate include System Quality and Entertainment.

JEL: I13, I14

KEYWORDS: User Health Status, Mobile Health Applications, Information Technology, Health, Usability, Computer Human Interaction

INTRODUCTION

Technology has developed rapidly and extensively in all aspects of life, including health sectors that are not limited to medical tools and equipment (Kamp et al., 2016). Technology has not only introduced many applications to manage health behaviors such as diet, exercise and other health concerns in the field of medical care but has also targeted healthy users to these applications. In the medical field, e-health has been developed with the aim of bringing health and promoting culture of e-health care services to a wide range of users in different healthy and physiological conditions (Miyazaki et al., 2012).

National Aeronautics and Space Administration has played a prominent role in the development of telemedicine technology. Medical devices with spacecraft have monitored physiological measurements and electronically sent them to Earth. Mobile telemedicine is a new and evolving area that exploits recent developments in mobile networks for applications in telemedicine. The use of wireless telecommunication systems, such as Wireless Personal Area Networks (WPANs), Wireless Local Area Networks (WLANs), Worldwide Interoperability for Microwave Access (WiMAX) broadband access, and cellular systems (2.5G, 3G and beyond 4G Nowadays) has enhanced telemedicine services by creating a flexible and homogeneous network with improved quality, availability, and effectiveness. The integration of emerging wireless solutions into healthcare has become a requirement for accurate and efficient healthcare delivery. It raises very significant challenges in terms of interoperability, performance, and security (El Khaddar et al., 2012).

Professionals in the health sector believe in the benefits of mobile health applications that can improve patient health, help people manage their own health and wellness, promote healthy living and gain access to useful information whenever and wherever required. Users usually download health applications to track their physical activity, to learn exercises and to choose good food to lose weight (Lu et al., 2018). Health applications on smartphones, mobile devices, wearable's, and fitness trackers have become an ideal way for people to benefit from mobile health by collecting personal health data that is easy to understand (Lu et al., 2018).

Evidence has confirmed that patient experience can be improved by Mobile Health Applications (MHAs) through which reminders and diagnostic information are delivered to patients. MHAs can improve adherence to medication for patients with chronic diseases, monitor diet behaviors for patients with diabetes, and encourage the collection of blood pressure readings for hypertensive patients. Thus, the increased use of MHAs in health care settings could contribute to better health care outcomes and increase general satisfaction of patients (Marcelle, 2017). The model of the research is based on some of the most important models that explain the behavior of individuals towards the use of information technology (Ajzen, 1985). The models to be discussed are the Technology Acceptance Model (TAM) by Fred Davis (Davis, 1989) and IS success model by Delone & McLean (Delone & McLean, 1992, 2003).

The aim of this research is to develop a comprehensive model that highlights the most significant factors (system quality, information quality, entertainment, ease of use, usefulness, social influence) influencing the intention to use Mobile Health Applications (MHAs). In addition, this research analyzes the moderating effect of user's health status on the adoption of Mobile Health Applications. The contribution of this research is to support the fact that utilization of technological advances and mobile application can facilitate easy, innovative and efficient access to medical information and consequently improve the quality of health care provision. In the following sections, the theoretical frameworks, research variables and hypotheses to be empirically tested are developed. In addition, elements of the research methodology and design employed by focusing on the research nature, research strategy, data collection are identified. Furthermore, a discussion of the results and findings are presented to show the final results. The paper closes with some concluding comments.

LITERATURE REVIEW

Many theories and models of technology acceptance exist to assist researchers in identifying the antecedents of successful Information Technology usage and predicting users' decisions and behavior. Some of these profoundly prominent theories include the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Unified Theory of Acceptance and Use of Technology (UTAUT) and Technology Acceptance Model (TAM). The Technology Acceptance Model (TAM), developed by Fred Davis in 1989 (Davis, 1989), is a leading theory in the analysis of Information and Communication Technology (ICT) acceptance. The Technology Acceptance Model (TAM) has evolved into a key model in understanding the predictors of behavior by accepting or rejecting technology. The UTAUT (Venkatesh et al., 2003) model has been selected in many gap areas and promises to be a great tool to analyze user acceptance of health technology (Venkatesh et al., 2003).

This section provides an explanation of some of the relevant concepts to the main objective of this research, which is to investigate and analyze the most prominent factors that affect individuals' intention to use mobile health applications. This section discusses Electronic Health Technology, Mobile Health, Jordanian health sector and Mobile health applications.

Electronic Health Technology

According to Laudon & Laudon (2012) information technology (IT) is one of many tools managers use to cope with change. Computer hardware is that the physical instrumentality used for input, processing, and output activities in an information system. IT consists of computers of varied and assorted sizes and shapes (including mobile hand-held devices); various input, output, and storage devices; and telecommunications devices that link computers (Laudon & Laudon, 2012).

Health information technology is best seen as having the potential to improve the quality, safety and efficiency of health care by allowing healthcare providers to collect, store, retrieve and transmit information electronically (Gulavani et al., 2014). It enables the provision of high-quality health care and the integration of information from health providers and patients. These include increasing the ability of doctors, medical/clinical staff and others to easily access and to use correct information about their patients as well as to improve the health care provided. Increasing the ability of patients to obtain information to manage their health-related issues and to better communicate with the health system can improve the efficiency and quality of care (Kim et al., 2016).

Mobile Health

Mobile Health represents the introduction of the latest technologies of smart phones, tablets and wearable devices to support healthcare, which contributes to frequent data transfer and use, making mobile phones an ideal delivery platform for health interventions due to their proliferation (Laurenza et al., 2018). Mobile Healthcare has become an emerging technology for personal use and often used voluntarily. The spread of mobile phone technology, such as mobile phones and tablet computers provide an ideal way to deliver health interventions. Mobile health-based interventions constitute an element of a larger surveillance system. Mobile devices can deliver health and self-management educational messages, improve quality of life and reduce mortality (Cajita et al., 2017, Kitsiou et al., 2017). The advent of 3G mobile phones introduced a wide range of application services to perform mobile health care in an easy and convenient way.

Mobile health is one of the latest e-health applications. It is known by the number of mobile technologies adopted in healthcare environments including mobile computing, mobile devices and wireless networking technologies. Mobile-health provides an opportunity to increase the number of e-health applications available (Laurenza et al., 2018). Mobile health technology aims to engage the user in activities of the applications for receiving the service, leading to high-quality healthcare (Singh et al., 2016). It also aims to improve the service provided through advanced communication capabilities that offer the possibility of communication between the doctor and the user in the interventions of early health care at lower cost with increased surveillance (Cortez et al., 2014).

Jordanian Health Sector

Jordan is well-known, both regionally and internationally, for high-quality healthcare services. In 2014, Jordan was ranked as a leading medical tourism destination in the Arab world according to the Jordan Tourism Board (JTB, 2019). Health care is provided in Jordan through the public and private sectors. Although Jordan has made a remarkable leap in the provision of health services in the public and private health sector, there are many challenges facing the health sector in Jordan. These challenges can be summarized as follow: The exacerbation of poverty and its negative impact on the quality of health services and weak health infrastructure, especially with regard to health technology and Information and Communication systems. Another problem is the environment, which is a multi-faceted problem. Increased and disorganized acquisition of inappropriate medical technologies presents challenges. Further, an increase in the burden of chronic diseases, injuries and emerging diseases exists. In addition, insufficient

efforts have been made to promote and encourage individuals' behavior and proper diets needed to avoid chronic diseases and injuries. Diseases caused by unhealthy lifestyles including cancer, cardiovascular disease and respiratory diseases are always present. Diabetes is one of the leading causes of morbidity and mortality in the over 45 age group.

Mobile Health Applications

Mobile health applications play an increasingly important role in providing easy access to health information and help overcome communication barriers between healthcare providers, facilities and patients. This is important for improving care as mobile devices will become, if not already, a platform of the best options for communication, information and healthcare delivery (Zhang et al., 2014). Using mobile medical health systems with new-generation mobile communication technology aims to integrate primary medical services, improve the quality of primary health care, control the growth rate of a variety of common acute and chronic diseases and to increase population awareness of health management and disease prevention. In particular, the establishment of an integrated system of health services for people with diseases makes it easy for the doctor to control the patient health (Free et al., 2013). The integration of mobile health systems with different resources allows the expansion of the health system in terms of time, space, participants targeted and service groups (Ma et al., 2017).

Factors Affecting the Use of MHAs and Hypotheses Development

With every passing moment, technology is developing new solutions that solve many problems that were once impossible to solve, especially in the field of medicine. The latest developments are medical applications that are put on electronic platforms and installed on smart phones. These applications have become famous due to multiple factors including information quality, system quality, ease of use, usefulness, entertainment, and social impact. This paper explores the relationship between selected factors influencing the adoption of mobile health applications. This section provides a review of the literature that focused on those selected factors.

Information Quality

Information quality refers to "the suitability of the information for use" (Todoran et al., 2015 p5). It is one of the most important dimensions on which information systems are evaluated. The quality of information also affects user satisfaction with the system and user intentions to use the system, which in turn affects the ability of the system to achieve the benefits for the user and the organization (Delone & McLean 2004). The quality of information must be taken into account when performing organizational functions effectively because it is an important factor and depends on the effectiveness of organizational decisions and procedures (Alsabawy et al., 2016). Based on the above discussion, we propose the following hypothesis:

H0.1: There is no significantly statistical impact of Information Quality on the intention to use Mobile Health Applications

System Quality

System quality plays an important role in the success of a comprehensive software system. It is an important aspect for developers, users and project managers. System quality is the extent to which the industry determines a set of desirable features that should be integrated into the product to improve its lifetime performance. Furthermore, according to the information system model, system quality is one of the most important features of success that affects user satisfaction and desire to use it (Dreheeb et al., 2016). More sophisticated systems are needed in the healthcare sector. Systems such as calling nurses or following patients need accurate and up-to-date information. Once this information is installed in medical systems, a

full range of new services will be available (Haute et al., 2016). Based on the above discussion, the researcher proposes the following hypothesis:

H0.2: There is no significantly statistical impact of System Quality on the intention to use Mobile Health Applications.

Ease of Use

Ease of use based on the user experience measures the technology usage requirements or the degree to which the user accepts that using a particular innovation will be easy and smooth (Davis, 1989). The diversity of user's ages imposes special requirements on applications (Melzner et al., 2014). That is, the use of a particular technology (such as mobile health applications) will be free of physical and mental effort. The user may accept that a particular innovation (such as mobile health applications) is useful (Hussain et al., 2016). Based on the above discussion, the researcher proposes the following hypothesis:

H0.3: There is no significantly statistical impact of Ease of Use on the intention to use Mobile Health Applications.

Usefulness

The perceived benefit is that people tend to use application if they think it will help them do their jobs better. Positive use of performance has a high degree of perceived benefits (Davis, 1989). This concept is a key factor in explaining the intention to use advanced mobile applications in general (Wang et al., 2006) and mobile health applications specifically (Wu et al., 2007). Interest has been defined as the comparative advantage and hence the degree to which innovation is better used than its counterparts (Moore and Pompas, 1991). The validity and reliability of the expected benefit indicates the intention to using information technology, as confirmed by (Davis et al., 1989). Based on the above discussion, the researcher proposes the following hypothesis:

H0.4: There is no significantly statistical impact of Usefulness on the intention to use Mobile Health Applications.

Entertainment

Entertainment was given attention in many aspects including medicine. It is also used in other areas, for instance commercial uses, where many electronic media are used in interesting presentations in advertising. Software engineering is interested in computer simulation software for the design of military or industrial training (Hamari et al., 2014). Perceived enjoyment is the extent to which the activity in which the computer is used is enjoyable in itself, regardless of any performance implications that might be expected (Davis & Wiedenbeck, 2001). Davis & Wiedenbeck (2001) postulated that perceived enjoyment is an important indicator in the use of information systems. Although medical technology relates only to functions, health applications must include playful features that emphasize the fun aspects of use (Ziefle & Jakobs, 2010). Based on the above discussion, the researcher proposes the following hypothesis:

H0.5: There is no significantly statistical impact of Entertainment on the intention to use Mobile Health Applications.

Social Influence

Social influence is a pervasive force in social encounters of human social interaction, where people exchange their opinions, beliefs, actual behavior, or even attitudes under pressure from those who interact

with them. People are also influenced by the opinions of others as evidence that they are convinced of the arguments presented. This is an attempt to track the progress of others when they feel social pressure (Flache et al., 2017). In addition, when an individual understands the culture of people he/she refers to, and the agreements he/she has made with them during specific social situations affects the individual (Thompson et al., 1991). It was also observed that social influence has a significant impact when the behavior is new and in its initial stages of adoption (Teo et al., 2003). Based on the above discussion, the researcher proposes the following hypothesis:

H0.6: There is no significantly statistical impact of social influence on the intention to use Mobile Health Applications.

Moderating role of User Health Status

In addition, the diversity of the user's age, different health status and particular requirements of the applications affect the intent to use those applications. We would expect use should be easy and smooth (Melzner et al., 2014). The existence of quality health systems and information is one of the success features that affect user satisfaction and the desire to use it for health applications and his desire to rely on them to document data according to his health (Dreheeb et al., 2016). Based on the above discussion, the researcher proposes the following hypothesis and the research model are presented in Figure 1 below.

H0.7: There is no significantly statistical moderating impact of User Health Status on the effect of Information Quality on the intention to use Mobile Health Applications.

H0.8: There is no significantly statistical moderating impact of User Health Status on the effect of System Quality on the intention to use Mobile Health Applications.

H0.9: There is no significantly statistical moderating impact of User Health Status on the effect of Ease of Use on the intention to use Mobile Health Applications.

H0.10: There is no significantly statistical moderating impact for User Health Status on the effect of Usefulness on the intention to use Mobile Health Applications.

H0.11: There is no significantly statistical moderating impact for User Health Status on the effect of Entertainment on the intention to use Mobile Health Applications.
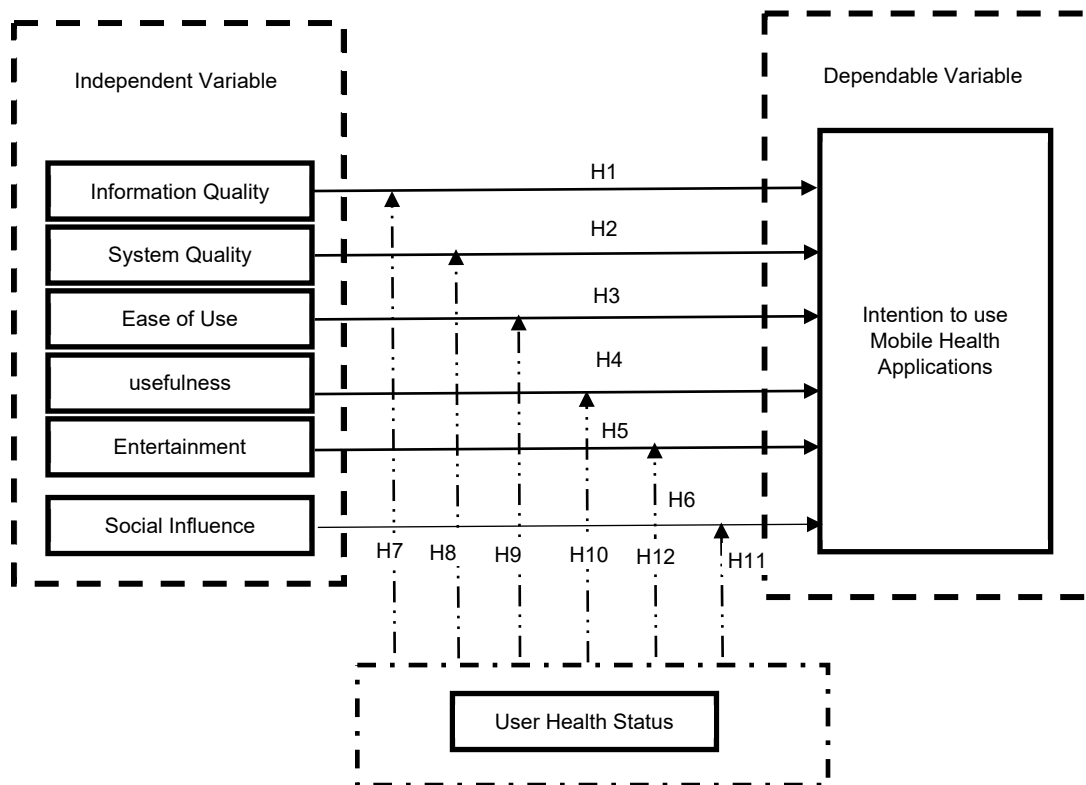
H0.12: There is no significantly statistical moderating impact for User Health Status on the effect of social influence on the intention to use Mobile Health Applications.

Figure 1: Proposed Research Model

This figure shows relationships between the independent variables (Usefulness, System Quality, Information Quality, Ease of use, Entertainment, Social Influence) and the dependent variable (Intention to use mobile heath applications) with the moderation factor of user health status which are represented by 12 hypotheses.

DATA METHODOLOGY AND DESIGN

In this research, a mixed method, a "process of collecting, analyzing and mixing quantitative and qualitative research methods in a single study to understand the research problem" (Creswell, 2012, p. 220) is adopted. Moreover, this research adopts both deductive and inductive techniques. We use deductive techniques for testing designed hypotheses and inductive techniques to generate new knowledge or conclusions based on data and procedures followed (Etikan and Alkassim, 2016). A survey strategy is the main quantitative strategy used in the study.

Research population refers to a subset of individuals with the condition or characteristics of interest defined by the aptness criteria (Ritchie & Elam, 2003; Etikan and Alkassim, 2016). In sampling design, there are several techniques adopted including as convenience and purposive or randomly based. However, when the population size is very large and cannot be either randomly or purposely defined, convenient and purposive sampling is preferred (Etikan, Musa and Alkassim, 2016). Since our population frame is large and can't be either randomly or purposely defined, we used convenient and purposive sampling. The convenience sample includes MHAs users questioned online. The web-based survey was distributed over a period of 2 months (March and April 2019) and targeted Jordanian MHA users within all health centers and hospitals in Jordan. The open sample was distributed to 562 MHAs users and 527 were returned producing a 94% response rate. An online link was provided based on the period in which the poll was available and active. A sample of (5) medical staff, mainly doctors were interviewed to validate the instrument. The questionnaire consists of two parts. Part one contains questions in general about participants while part two focused on the variables of the study as shown in Appendix 1.

We examined descriptive statistics including means, frequencies, and standard deviations to measure the sample perceptions on research variables. We further utilize structured equation model (SEM), average variance explained, composite reliability to ensure our model validity and fit goodness for testing the proposed hypothesis, skewness coefficients, conformity of the data and the validity of the model for the purposes of examination hypotheses. Skewness coefficients are a used to examine the normal distribution of data. We use simple linear regression analysis to examine hypotheses (H0.1, H0.2, H0.3, H0.4, H0.5, H0.6, H0.7, H0.8, H0.9, H0.10, H0.11, and H0.12).

Hypotheses Testing

Before testing the proposed null hypotheses, several tests were performed to identify the proposed model validity for testing the proposed hypotheses.

Model Validity

To validate hypothesized model, several tests were carried out to ensure that there was not excessively high correlation between the independent variables. We use the Multicollinearity test using the tolerance and Variance Inflation Factor (VIF) for the independent variables with variance tolerance value exceeding (0.05) and the coefficient of VIF tolerance level less than (10) (Hair et al., 2006). The skewness coefficient for scale independent variables (System Quality, Information Quality, Usefulness, Ease of use, Entertainment, Social Influence) ensures that the data is normally distributed considering that the data follow a normal distribution if the skewness value is less than (1) (Hair et al.,2014). The dummy ordinal variables (Gender, Age, and qualification) do not subject to normal distribution tests. Table (1) summarizes the validity results.

Table (1) shows that permitted tolerance test values ranged from (0.354 to 0.55), which is greater than 0.05, and the values of the coefficient of variance inflation are less than (5) (Hair et al., 2006) indicating there is no multicollinearity threat between independent variables. In addition, Skewness values were less than (1), which confirms a normal distribution of data. Therefore, the model is valid for further statistical factor analysis based on convergent and decremental analysis to ensure the construct validity and reliability of this model to test the proposed hypotheses.

Table 1: Tolerance and Variance Inflation Test

Model		Collinearity Statistics		
		Skewness	**Tolerance**	**VIF**
System Quality		0.325	0.530	1.887
Information Quality		0.325	0.354	2.825
Independent variables	Usefulness	0.214	0.434	2.304
	Ease of use	0.325	0.463	2.160
	Entertainment	0.241	0.439	2.278
Social influence		0.245	0.555	1.802

*This table shows mean difference analysis. Panel A shows results for observations in the top quartile. Panel B shows results for observations in the bottom quartile. The third column reports the results of the Mann Whitney test for differences in means. ***, ** and * indicate significance at the 1, 5 and 10 percent levels respectively.*

Average Variance Explained (AVE)

The AVE test was applied to assess the validity of discrimination. The AVE of each latent construct should be higher than the highest squared correlation with any other latent variable. Table (2) shows the results. The average variance extracted (AVE) for each structure is above 0.5, indicating that the model scale has sufficient convergent validity. Further, the results show the average output contrast (AVE) is higher than 0.6, which confirms the model has sufficient validity. Table (2) suggests the square root of the AVE for each variable is higher than that of the other variable, thus providing evidence of the discrimintal validity of the model (Chin et al., 2003; Yi & Davis, 2003).

Table 2: AVE and Composite Reliability Analysis

		Usefulness	System Quality	Information Quality	Ease of Use	Entertainment	Social Influence	AVE	CR	√**AVE**
Usefulness	Pearson Correlation	1.00	0.56	0.50	0.35	0.35	0.26	0.67	0.85	0.81
System- Quality	Pearson Correlation	0.31	1.00	0.39	0.34	0.22	0.16	0.69	0.81	0.83
Information- Quality	Pearson Correlation	0.50	.623**	1.00	0.35	0.38	0.36	0.60	0.86	0.77
Ease of use	Pearson Correlation	0.35	.587**	0.35	1.00	0.41	0.22	0.83	0.83	0.91
Entertainment	Pearson Correlation	0.35	.470**	0.38	0.41	1.00	0.36	0.66	0.69	0.81
Social- Influence	Pearson Correlation	0.26	.397**	0.36	0.2	0.36	1.00	0.68	0.71	0.82

*This table shows the average variance extracted (AVE) for each structure (Usefulness, System Quality, Information Quality, Ease of use, Entertainment, Social Influence) for all are above 0.5 indicating the model scale has sufficient convergent validity. **. Correlation is significant at the 0.01 level (2-tailed).*

Before continuing the analysis, we wish to assure the validity of the model using a path analysis procedure for model compatibility testing. We do this by conforming factor analysis using the AMOS application (v.26) based on the Structural Equation Model (SEM). The conformity factor analysis shows the fitness and ability of our model to test the proposed hypotheses (Chi-square=1991.106; P=0.000; CFI=0.874; RMSEA=0.071). Therefore, the analysis for testing the proposed hypotheses can be examined using AMOS software as follows: H0.1: There is no significantly statistical impact of Information Quality on the intention to use MHAs. Figure 2 shows the result of standard regression analysis.

Figure 2 The effect of Information quality on intention to use MHAs

		Estimate	S.E.	C.R.	P Label
Intent < - - -	iquality	0.471	0.039	11.976	***
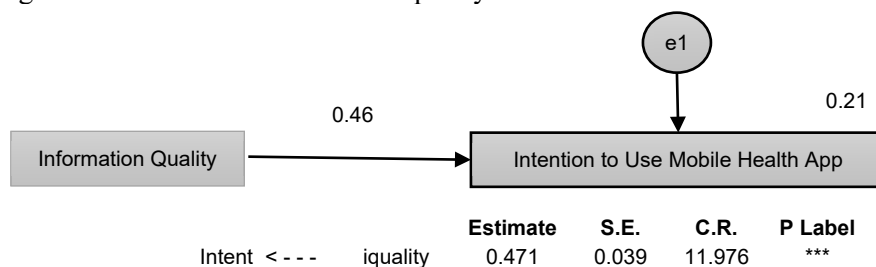
*This figure shows the results of the significant impact for information quality on the intention to use MHAs as P<=0.05. (*** P-value < 0.05)*

Results in Figure 2 show a significant impact for information quality on the intention to use MHAs. Therefore, this analysis rejects the null hypothesis and accept the alternative, which indicates a significant

impact as P < = 0.05. This process is repeated for testing hypotheses H2 to H6 without taking the moderating effect into consideration. The results of the analysis are shown in Table 3.

Table 3: Results of AMOS Testing of the Research Hypotheses

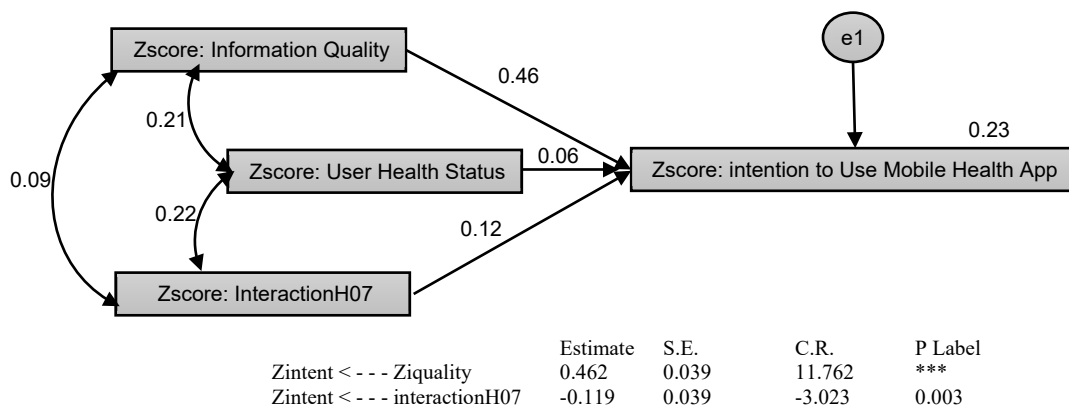| Hypotheses	Factor	Supported	Not Supported	P-value *** p<=0.05
H1	Information Quality	Yes	-	Yes
H2	System Quality	Yes	-	Yes
H3	Ease of Use	Yes	-	Yes
H4	Usefulness	Yes	-	Yes
H5	Entertainment	Yes	-	Yes
H6	Social Influence	Yes	-	Yes

*This table shows the results of relationship between all factors (independent Variables) effect on the MHAs (Dependent Variable). Results show that all factors have significant impact on the MHAs with p-value <0.05. *** indicate significance at the 1, 5 and 10 percent levels respectively.*

Table 3 shows results of AMOS testing of the research hypotheses H1 to H6. Results indicate that all hypotheses (H1 – H6) are supported with p-values less or equal to 0.05. This implies that all independent factors (system quality, information quality, entertainment, ease of use, usefulness, social influence) have significant impact on the dependent factor (intention to use Mobile Health Applications (MHAs)).

To determine the role of the moderating variable (User Health Status) on the intention to use MHAs through the interaction with independent variables, a standardized value for each variable (Zscore) was calculated. We implement the interaction as the product of the zscore of each independent variable by zscore of the moderating variable.

H0.7: There is no significantly statistical moderating impact of User Health Status on the effect of the Information Quality on the intention to use MHAs. Figure 3 shows the result of standard regression analysis.

Figure 3: The Moderating Role of User Health Status in the Effect of the Information Quality on the Intention to Use MHAs

	Estimate	S.E.	C.R.	P Label
Zintent < - - - Ziquality	0.462	0.039	11.762	***
Zintent < - - - interactionH07	-0.119	0.039	-3.023	0.003

This figure shows the results of the moderating role of User Health Status in the effect of the Information Quality on the intention to use MHAs as P value = 0.003, P<=0.05 which indicate a significant impact.

Results in Figure 3 indicate that information quality has a direct and significant impact on the intention to use MHAs. However, the interaction between information quality and user health status leads to a moderate impact on the intention to use MHAs (p-value = 0.003; <0.05). This process for testing the rest of the hypotheses H8 to H12 is repeated taken the moderating effect of User Heath Status into consideration and the results are shown in Table 4 below.

Table 4 shows the results of AMOS testing of the research hypotheses H7 – H12. Results show that Hypotheses H7, H9, H10 and H12 are supported with p-values less than or equal to 0.05. This implies that independent factors including information quality, ease of use, usefulness and social influence have significant impacts on the dependent factor, intention to use Mobile Health Applications (MHAs). H8 and H11 are not supported with p-values higher than 0.05., implying that independent factors that include system quality and entertainment have no significant impact on the dependent factor, intention to use Mobile Health Applications (MHAs).

Table 4: Results of AMOS for Testing Research Hypotheses with Moderating Effect of User Heath Status

Hypotheses	Factor	Moderating Factor	Supported	Not Supported	P-value p<=0.05
H7	Information Quality	User Heath Status	Yes	-	0.003
H8	System Quality	User Heath Status	-	Yes	0.130
H9	Ease of Use	User Heath Status	Yes	-	0.025
H10	Usefulness	User Heath Status	Yes	-	0.008
H11	Entertainment	User Heath Status	-	Yes	0.731
H12	Social Influence	User Heath Status	Yes	-	0.003

This table shows test results of the relationship between all factors (independent Variables) effect on the MHAs (Dependent Variable) with Moderating effect of User Heath Status. Results show that all factors have significant impact on the MHAs with p-value <0.05 except System quality and Entertainment with p-value > 0.05.

RESULTS DISCUSSION

Based on the descriptive analysis, the results show that MHAs users believe in the importance of MHAs properties including Information Quality, System Quality, Ease of Use, Usefulness, Entertainment, and Social Influence. This can be attributed to the diversity of such applications with quality variations amongst them. Users seek those applications that maintain a higher quality level. Moreover, results show a high level of intention to use MHAs as perceived by users. They argued that MHAs will be a necessity in the near future. This result supports the extended propagation of mobile devices and its applications.

Mobile users encourage health centers to share their knowledge and products to attract an audience, which in turn allows the number of MHAs users to increase via different media such as social media and internet sites. Furthermore, results address that MHAs users have a good health status. Users state they have a moderate health status of suffering from physical/motor disabilities, psychological disorders, taking medicines regularly, performing periodic medical tests or analyses and visiting a specialist doctor for treatment at least once a month. However, MHAs users still intend to use these applications for more protection or entertainment or are socially influenced.

Analytical analysis results show a significant impact of information quality on the intention to use MHAs. This result can be explained by the level of awareness of health applications users, and their ability to distinguish between applications in terms of the quality of information available. Results further prove a significant impact for system quality on the intention to use MHAs which results from the importance of system properties (interface, design, and platform) and the services provided by MHAs. In addition, the factor of ease of use and usefulness significantly influences the intention to use MHAs. This agrees with the fact that users of any application prefer to deal with an easy interface and immediately learn how to use its useful information and services provided.

The intention behind using MHAs can be for fun or entertainment as there is generally no cost required and users have time to surf different applications. Therefore, results prove previous claims and show a significant impact for entertainment on the intention to use MHAs. Finally, social influences play a significant role that supports the intention to use MHAs as introduced by the results. This can be easily

justified since MHAs are widely spread and can be promoted via social media, which in turns allow posting or sharing in between friends.

Results also show the influence of the moderating factor which is user health status to examine its interacting impact with independent variables. In this context, results show that information quality has a direct significant impact on the intention to use MHAs and there is no directed significance for user health status on the intention to use MHAs. However, the interaction between information quality and user health status leads to a significant moderate impact on the intention to use MHAs. This can justify that users seek high quality health information when they feel sick or have health problem. The results of the analysis also show no significant moderate impact on the intention to use MHAs, since users with health problems would rather focus on the information quality not the system design and its interface. Furthermore, results indicate that ease of use has a direct significant impact on the intention to use MHAs and has no direct significant impact for user health status on the intention to use MHAs.

The interaction between ease of use and user health status leads to a significant moderate impact on the intention to use MHAs. Similarly, users with health problems would seek information, regardless of if the application is easy to use or not. Useful information can attract MHAs users with health problems. Therefore, results prove that usefulness has a direct significant impact on the intention to use MHAs. However, there exists no direct significant impact for user health status on the intention to use MHAs. The interaction between usefulness and user health status leads to a significant moderate impact on the intention to use MHAs. Also, results indicate that social influence has a direct significant impact on the intention to use MHAs; and there is no direct significant impact for user health status on the intention to use MHAs. However, the interaction between social influence and user health status leads to significant moderate impact on the intention to use MHAs. Finally, results indicate that entertainment has no significant direct effect on the intention to use MHAs. In addition, there is no direct significant impact for user health status on the intention to use MHAs; and even the interaction between entertainment and user health status has no significant moderate impact on the intention to use MHAs. Users with health problems have no time to trigger their intention to use MHAs for fun and entertainment.

CONCLUSION

The aim of this research is to develop a comprehensive model that highlights the most significant factors (system quality, information quality, entertainment, ease of use, usefulness, social influence) influencing the intention to use Mobile Health Applications (MHAs) within Jordanian hospitals and health centers. In addition, we analyze the moderating effect of User's health status on the adoption of Mobile Health Applications. A convenience sample that represents the population of health application users within Jordanian hospitals and health centers were chosen. An online link was provided for participants based on the period in which the poll is available and active. By distributing the questionnaires online (Google forms) the researcher assumes that respondents use a Smartphone or another form of Information and Communication Technology (ICT). Some 527 MHAs users participated in the questionnaire with a response rate of 94%.

The primary findings of the research indicate that MHAs user in Jordan are aware of the importance of mobile health applications and want to use MHAs. It also explores how their use has affected the lives of individuals and their evidence of adoption. In addition, calculating measurement levels for independent factors (system quality, information quality, entertainment, ease of use, usefulness, social influence) that affect the intention of using MHAs, showed high measurement levels for all factors on the intention to use of MHAs. With regard to the moderating effect on the factors influencing the intention to use MHAs packages, it became clear that the health status of the user had a clear impact on a number of factors that include Information quality, Usefulness, Ease of use and Social Influence did not affect each of System Quality and Entertainment.

Considering the proliferation of applications and increased adoption of ICT by individuals, mobile health applications should be given considerable attention by officials and high administration in both the public and the private sector. Administrators should stimulate the adoption of such health applications that can beneficial for cutting budgets spent on health and regulating their use. Government officials and Hospitals mangers should work together on developing mobile health applications to contribute to increasing the ability of doctors to monitor the patients' medical condition and providing the ability to save and exchange information confidentially in light of developing policies that guarantee the privacy and confidentiality of user data.

This research proposes the following fields for future researchers: Activating and developing information technology at all medical levels, seeking a healthy environment by highlighting the importance of healthy habits to prevent diseases, enhancing the means of obtaining reliable medical information from medical sources capable of remote inspection, reducing therapeutic costs at the individual and institutional levels. Research was conducted within a limited period of time that prevented the researcher from further investigations with more experienced people. In addition, the research sample was more comprehensive for females by more than 75%, due to the social relationships of the researcher and the ease of communication with females than males.

Appendix1: Questionnaire – English

Part Two: Study Variables

Please indicate how much you agree or disagree with each of the following statement based on the scale ranging from strongly disagree to strongly agree:

#	System Quality Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Mobile Health Applications are user-friendly.					
2.	It will be easy to browse Mobile Health Applications					
3.	I have access to the information I need quickly.					
4.	The contents of mobile health applications are downloaded quickly upon entry.					
5.	Mobile Health Applications have attractive design.					
6.	Mobile Health Application's response time for my queries is fairly fast.					
#	Information Quality Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.	Mobile Health Applications provide the precise information I need.					
8.	I think the information provided by Mobile Health Applications meets my needs					
9.	I think information provided by Mobile Health Applications will be reliable.					
10.	I think Mobile Health Applications will provide up-to-date information.					
11.	Using Mobile Health Applications will provide appropriate answers to my questions while browsing the applications.					
12.	When comparing applications' results with medical devices, I do not notice any inconsistencies in the resulting information.					
13.	I think Mobile Health Applications willprovide information in an appropriate format.					
14.	I think Mobile Health Applications will always provide Valuable information.					

#	Usefulness Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15.	I think that the use of mobile health applications is more successful in accessing mobile health service.					
16.	I think Mobile Health Applications are useful.					
17.	Mobile Health Applications will give me more control over activities in my life					
18.	I think using Mobile Health Applications will make things. I want to accomplish easier to perform.					
19.	Mobile Health Applications will save my time when using them.					
20.	Using Mobile Health Applications will enable me to accomplish tasks more quickly.					
21.	I think using Mobile Health Applications improves the quality of life (health).					

#	Ease of Use Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22.	Mobile Health Applications require as few steps as possible to accomplish what I want to do.					
23.	I think using Mobile Health Applications does not require any effort.					
24.	I believe that learning to operate Mobile Health. Applications will be easy for me.					
25.	I think my interaction with Mobile Health Applications will be clear and understandable.					
26.	Overall, I believe that Mobile Health Applications are easy to use.					

#	Entertainment Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
27.	I feel happy to interact with Mobile Health Applications when used.					
28.	Using graphical representations of health values and other Information in Mobile Health Applications is pleasant.					
29.	Overall, I believe that using Mobile Health Applications will be entertaining tools.					
30.	Browsing Mobile Health Applications would be an exciting way of passing time.					
31.	It will be enjoying to use Mobile Health Applications.					

#	Social Influence Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32.	People who influence my behavior think that I should use Mobile Health Applications.					
33.	People who are important to me think that I should use Mobile Health Applications.					
34.	I would use Mobile Health Applicationsif myfriends recommend me to do so.					
35.	I will use Mobile Health Applications when my close friends start using them.					

#	Intention to Use Mobile Health Applications Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36.	Assuming that I have access to Mobile Health Applications, I intend to use them.					
37.	I predict that I would use Mobile Health Applications in the future.					
38.	I will try to use Mobile Health Applications					
39.	I think the use of MHA will be a necessity in the near future					

#	User Health Status Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
40.	I suffer from physical/motor disabilities.					
41.	I have psychological disorders.					
42.	I take medicines regularly.					
43.	I perform periodic medical tests or analyses.					
44.	I visit a specialist doctor for treatment at least once a month					

REFERENCES

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. Action Control, 11–39. doi:10.1007/978-3-642-69746- 3_2.

Alsabawy, A.Y., Steel, C. and A., Soar, J. (2016). "Determinants of perceived usefulness of e-learning systems". *Computers in Human Behavior*, Vol 64 (c),843-858.

Cajita, M. Hodgson, N., Budhathoki, C. and Han, H. (2017). "Intention to Use mHealth in Older Adults with Heart Failure" *Journal of Cardiovascular Nursing*, Vol (32) pp 11-39.

Chin, W. Marcolin, B. and Newsted, P. (2003). "A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study*," Information systems research*, Vol 14 (2), pp 189-217.

Cortez, N. Cohen, I. and Kesselheim, A. (2014). "FDA regulation of mobile health technologies". *The New England Journal of Medicine*, Vol 371(4), pp 372-379.

Creswell, J. (2012). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. 4th Edition.

Davis, F. D. (1985). A technology acceptance model for empirically testing new end-user information systems: Theory and results. http://hdl.handle.net/1721.1/15192

Davis, F. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology". *MIS Quarterly*, Vol 13 (3) pp 319-340.

Davis, F. (1993). "User acceptance of information technology: system characteristics, user perceptions and behavioral impacts", *International Journal of Man–Machine Studies*, Vol 38 (3) pp 475–487.

Davis, F. Bagozzi, R. and Warshaw, P. (1989). "User acceptance of computer technology: A comparison of two theoretical models", *Management Science*, Vol 35 (8) pp 982 -1003.

Davis, F. Bagozzi, R. and Warshaw, P. (1992). "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace1", *Journal of Applied Social Psychology*, Vol 22 (14), 1111–1132.

Davis, S. and Wiedenbeck, S. (2001). "The mediating effects of intrinsic motivation, ease of use and usefulness perceptions on performance in first time and subsequent computer users", *Interacting with computer*, Vol 13 (2001) pp 549-580.

DeLone, W and McLean, E. (1992). "Information systems success: the quest for the dependent variable", *Information Systems Research*, Vol 3 (1) pp 60–95.

Delone, W. and McLean E. (2003). "The DeLone and McLean Model of Information Systems Success: A Ten-Year Update", *Journal of Management Information Systems*, Vol 19 (4) pp 9-30.

DeLone, W. and McLean, E. (2004). "Measuring e-Commerce Success: Applying the DeLone & McLean Information Systems Success Model", *International Journal of Electronic Commerce*, Vol 9 (1) pp 31-47.

Dreheeb A. Basir N. and Fabil N. (2016). "Impact of System Quality on Users' Satisfaction in Continuation of the Use of e-Learning System". *International Journal of e-Education,* Vol 1 (6) pp 13-20.

El Khaddar, M. Harroud, H., Boulmalf, M., Elkoutbi, M., and Habbani, A. (2012). Emerging wireless technologies in e-health trends, challenges, and framework design issues. 2012 International Conference on Multimedia Computing and Systems. doi:10.1109/icmcs.2012.6320276

Etikan, I., Musa, S., and Alkassim, R. (2016). "Comparison of Convenience Sampling and Purposive Sampling", *American Journal of Theoretical and Applied Statistics*, Vol 5 (1) pp. 1-4.

Flache, A. Mäs, M. Feliciani, T. Brown, E. Deffuant, G. Huet, S. and Lorenz, J. (2017). "Models of Social Influence: Towards the Next Frontiers", *Journal of Artificial Societies and Social Simulation*, Vol 20 (4), pp 1954 – 2016.

Free, C., Phillips, G., Watson, L., Galli, L., Felix, L., et al. (2013). "The Effectiveness of Mobile-Health Technologies to Improve Health Care Service Delivery Processes: A Systematic Review and Meta-Analysis", PLoS Med 10 (1): e1001363. doi: 10.1371/journal.pmed.1001363

Hair, J. Black., W. Babin., B. Anderson., R. and Tatham, L. (2006). Multivariant Data Analysis. New Jersey: Pearson International Edition

Hair, Sarstedt, M., Hopkins. L., and Kuppelwieser, V. (2014). "Partial least squares structural equation modeling (PLS- SEM)", *Eur. Bus. Rev.*, Vol 26 (2) pp 106–121.

Hamari, J., Koivisto,J. and Pakkanen, T. (2014). "Do Persuasive Technologies persuade? - A review of empirical studies. *Proceedings of Persuasive", LNCS*, Vol 8462 pp 118–136.

Haute T., Poorter E., Crombez P., Lemic F., Handziski V., Wirström N., Wolisz A.,Voigt T. and Moerman I. (2016). "Performance analysis of multiple Indoor Positioning Systems in a healthcare environment", *International Journal of Health Geographics*, Vol 1 (15), p.7.

Kamp, R. Pavlova, M. Tambor, M. Golinowska, S. and Groot, W. (2016). "The use of e-health and m-health tools in ealth promotion and primary prevention among older adults: a systematic literature review, *BMC Health Services Research*, Vol 16 (S5), p. 290

Kim, R. Gaukler, G. and Lee, C. (2016). "Improving healthcare quality: A technological and managerial innovation perspective", *Technological Forecasting and Social Change*, Vol 113 (Part B) pp, 373–378.

Kitsiou, S., Thomas, M., Marai, G. Maglaveras, N., Kondos, G., Arena, R., and Gerber, B. (2017). "Development of an innovative mHealth platform for remote physical activity monitoring and health coaching of cardiac rehabilitation patients" International Conference on Biomedical & Health Informatics (BHI). doi:10.1109/bhi.2017.7897223

Laudon, K. and Laudon, J. (2012). Management Information Systems. Managing the digital firm. 12th ed.

Laurenza, E., Quintano, M., Schiavone,F. and Vrontis, D (2018). "The effect of digital technologies adoption in healthcare industry: a case based nalysis", *Business Process Management Journal*, Vol 24 (5), pp 2017 – 2084.

Lu, C., Hu, Y., Xie, J., Fu, Q., Leigh, I., Governor, S., and Wang, G. (2018). "The use of mobile health applications to improve patient experience: cross-sectional study in Chinese public hospitals", *JMIR mHealth and uHealth*, Vol 6 (5), e126.

Ma, Y., Wang, Y., Yang, J., Miao, Y. and LI, W. (2017). "Big Health Application System based on Health Internet of Things and Big Data", *IEEE Access*, Vol 5, pp 7885 – 7897.

Marcelle, C. (2017). "What is health? 3 Benefits of Mobile Health Apps". Retrieved from http://blog.caresync.com/what-is-mhealth- 3-benefits-of-mobile-health-apps

Melzner, J., Heinze, J. and Fritsch, T. (2014). "Mobile Health Applications in Workplace Health Promotion: An Integrated Conceptual Adoption Framework", *Procedia Technology*, Vol 16, pp, 1374–1382.

Miyazaki, M., Igras, E., Liu, L., & Ohyanagi, T. (2012). "Global health through eHealth/telehealth", *eHealth and Remote Monitoring*, Vol 1 (16), pp 399 – 409.

Moore, G. and Benbasat, I. (1991). "Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation", *Information Systems Research*, Vol 2 (3), pp 192 – 222.

Singh, K., Drouin, K., Newmark, L.P., Rozenblum, R., Lee, J., Landman, A. and Bates, D.W. (2016). "Developing a framework for evaluating the patient engagement, quality and safety of mobile health applications*", The Commonwealth Fund, Issue Brief* 2016 pp, 1 – 11.

Teo, T. and Pok, S. (2003). "Adoption of WAP-enabled mobile phones among Internet users", *Omega*, Vol 31(6), 483 – 498.

Thompson, R. Higgins, C. and Howell, J. (1991). "Personal Computing: Toward a Conceptual Model of Utilization", *MIS Quarterly*, Vol 15 (1), pp, 125 – 143.

Todoran, I., Lecornu, L., Khenchaf, A., and Caillec, J. (2015). "A Methodology to Evaluate Important Dimensions of Information Quality in Systems", *Journal of Data and Information Quality*, Vol 6 (2-3), pp, 1–23.

Venkatesh, V., Morris, M., Davis, G. and Davis, D. (2003). "User Acceptance of Information Technology: Toward a unified view", *MIS Quarterly*, Vol 27 (3) pp, 425-478.

Wang, Y., Lin, H. and Luarn, P. (2006). "Predicting consumer intention to use mobile service", *Information Systems Journal*, Vol 16 (2) pp, 157–179.

Wu, J.H., Wang, S.C. and Lin, L.M. (2007). "Mobile computing acceptance factors in the healthcare industry: A structural equation model", *Journal of Medical Informatics*, Vol 76 (1), pp 66–77.

Yi, M. Y. & Davis, F.D. (2003). "Developing and validating an observational learning model of computer software training and skill acquisition", *Information Systems Research*, Vol 14 (2), pp, 146-169.

Zhang, C. Zhang, X. and Nussloch, R. H. (2014). "Assessment Metrics, challenges and strategies for mobile health apps", *Issues in Information Systems*, Vol 15 (11) pp, 59 – 66.

Ziefle, M. and Jakobs, E.M. (2010). "New challenges in Human Computer Interaction: Strategic Directions and Interdisciplinary Trends". 4th International Conference on Competitive Manufacturing Technologies, pp 389–398.

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MULTINATIONAL ENTERPRISES AND ECONOMIC NATIONALISM: A STRATEGIC ANALYSIS OF CULTURE

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ABSTRACT

This paper presents a political psychological analysis of culture to conceptualize it as a political value, i.e. as a causal factor shaping intra- and inter-organizational international business behavior. It highlights how culture manifests itself circumstantially as a variable shaping intra- and inter-organizational collective behavior amidst rapid, crisis-level, multinational conflictual change. Internal and external contextual factors determine the intensity and the saliency of this value in an organization. Values are individual and collective active actor drives to achieve an end state. Norms are distinguished from values in that they display behavioral pattern principles that may be explicit or implicit, manifested as behavioral attitudes. The paper thereby conceptualizes the policy making relevance of difference in national cultures. It critiques economic nationalism from the perspective of organizational management. It discusses the implications for leadership of reconciling these cultural differences as national values among multinational staff members in regard to communication among personnel. Intercultural/international perceptions of other cultures, specifically stereotyping, are part of the challenge to effective leadership communication within a multicultural/multinational organizational environment. A leadership imperative is to facilitate multinational cultural organizational value integration. A response to recent survey critiques of the state of the field regarding culture and international business is presented.

INTRODUCTION

This writer first confronted the issue of the conceptualization of culture as a causal factor in private sector business organizational behavior when assigned to teach an undergraduate course. "Methodology for International Studies" was first offered by this writer in Spring Semester 2017 and again in Spring 2018 and Spring 2019 at the Catholic University of Korea (CUK). The author was aware of the basic introductory literature in organizational management and leadership and also of the introductory textbooks for qualitative research methodology. The course became an opportunity to explore the concept of cultural value from the perspective of globalization as a factor shaping international business behavior.

Weerts (2014) affirms that "all investigations are informed by literature and disciplinary frameworks. Prior knowledge enables a scholar to focus the inquiry and interpret data" (135, referencing Merriam, 2009 and Creswell, 2013). This methodology course was offered in the interdisciplinary context of the CUK International Studies Department. The course used two textbooks: Fons Trompenaars and Charles Hampden-Turner, *Riding the Waves of Culture: Understand Diversity in Global Business* (McGraw-Hill, 2012) and John W. Creswell and Cynthia N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, (Sage, 2018). Earlier editions of these textbooks have been translated into Korean.

Availability of Korean language translations was a consideration given that the author does not know Korean and teaches courses in English. CUK Korean students generally feel more secure if they know that they can reference a Korean translation of a textbook if necessary. As a political science faculty member, this writer explored these issues with his students from the perspective of political psychology.

The writer as instructor worked within the context of the prevailing career preoccupations of the students in selecting course textbooks and materials. The international studies curriculum is oriented towards preparation for finding entry-level professional employment in the private sector. The instructor placed the course within the pro-globalization policy context of this South Korean university, nominally private but intensively dependent on national government education ministry guidance and funding. The writer pointed out to his students that the Trompenaars and Hampden-Turner textbook is only one of the standard introductory textbooks used to teach organizational management in a multinational/multicultural setting. The writer called the students' attention to two other standard texts: Hofstede, Hofstede and Minkov's *Cultures and Organizations: Software of the Mind* (2010) and Richard D. Lewis' *When Cultures Collide: Leading Across Cultures* (2005).

Trompenaars has stated elsewhere, "Norms are shared orientations of what we define as what we should do. Values are what we like to do. Basic assumptions are values that have become norms" ("Dr Fons Trompenaars on Culture" [*sic*] 2009, ~0:43-49). One of the prevalent values of *homo sapiens* particularly at the collective level is to "like" to form, defend and expand the security and status of shared, large, intensely held, self-identity communities (Cottam and Cottam, 2001, 93-96). Actors "like" to act in this way while also more prone to perceive a significant challenge, i.e. threat or opportunity, regarding the influence of these communities, i.e. their respective nations (Ibid., 96-99).

The Trompenaars and Hampden-Turner text presents a theoretical framework developed and applied to improve training for increased effectiveness in mid-level multinational business management. It emphasizes multicultural diversity and the need of a manager to prepare to integrate effectively cultural differences among organizational personnel. The focus is on avoiding interpersonal national sub-group conflict in a multinational enterprise (MNE). E.g. the text presents a vignette about Italian sales staff rebelling as a group against an inadvertently insulting American manager. The manager announced the implementation of an individual pay per performance incentive program that offended their group-oriented norms and values (2012, 79-80, 104-05). The focus of this paper is on why the barriers to that manager's communication and motivational efforts consequently increased due to this misstep. Leadership's capacity for effective communication decreased due to resultant suspicion and resentment regarding the manager's values and attitudes as now (mis)perceived collectively by the Italians. Repairing this relational damage is difficult; the text has various accounts of consequent organizational performance failures leading to removal from leadership positions.

National cultural differences are organizational fault lines around which formation of national cultural identity ingroups versus outgroups arise within an organization, e.g. in MNEs. Observers typically view economic nationalism at the state policy making level. Recent experiences involving Carlos Ghosn and the obstacles to Renault, Nissan and Mitsubishi integration illustrate national ingroup-outgroup dynamics in an MNE. Ghosn, "former chairman and CEO of Nissan Motor Co. and the Renault-Nissan-Mitsubishi Alliance," was arrested and detained for months by Japanese prosecutors under charges of fraud (Lampton, J., 2019, 21). He fled surreptitiously from Japan to one of his diaspora citizenship homelands, Lebanon, to the relief of some; his defense lawyers at a trial would have emphasized the prosecution's "political motivations" (Lewis, Inagaki and Cornish, 2019, para. 11). Commercial performance of both Renault and Nissan has subsequently been poor ("Carlos Ghosn," 2020).

The theoretical conceptualization of culture depends upon the phenomena, policy-related or otherwise, that the analyst aims to analyze. One scholarly summary declares in "Culture and Cognitive Science" under "What is Culture?":

> *"Those who advance definitions of culture do not necessarily assume that a good analysis must be faithful to the colloquial understanding of that term. Rather, these definitions are normative, insofar as they can be used to guide research. A focus on artifacts might orient research towards manufactured objects and institutions, a focus on behavior might promote exploration of human activities, a focus on symbols might take language as a principal subject of study, a materialist orientation might shift attention toward ecology, and a focus on mental states might encourage psychological testing. Philosophically, definitions that focus on external variables tend to imply that culture is not reducible to the mental states of individuals, whereas psychological definitions may imply the opposite"* [emphasis added] (Stanford Encyclopedia, 2011, para. 6).

This paper focuses on the group behavioral manifestation of culture in response to external variables including collectively perceived threats and opportunities to national well-being. Defending or expanding the influence of the national ingroup sharing a perception of a common culture in the midst of social interaction is the collective behavioral manifestation of this culture. This writer's academic field is political science and international relations with a focus on nationalism. Defining nationalism as the political value drive to promote the political influence of a national cultural community is a salient theme in the international relations literature. From this perspective, culture is relevant as a system of collective norms of an ingroup, the loyalty to which preoccupies the ingroup in perceiving and responding to challenges from outgroups. Culture exists as a loyalty community and this affective allegiance motivates or drives behavior. In contrast, the entry for "value theory" in the Stanford Encyclopedia portrays value as an evaluative ideal (2016). This difference illustrates the puzzle concurrent with the use of the term, value, an issue which the instructor explored with the students through the semester in the methodology course.

The immediate impetus for this paper was a pair of scholarly articles, one a recent article by Tung and Stahl (2018), "The Tortuous Evolution of the Role of Culture in IB [International Business] Research: What We Know, What We Don't Know, and Where We are Headed." The other is a response to Tung and Stahl (2018) by Peterson and Barreto (2018), "Interpreting Societal Culture Value Dimensions." Both appeared in the *Journal of International Business Studies.* The recommendations and suggestions within these two articles constitute the framework of this paper. Tung and Stahl approvingly quote Devinney and Hohberger, ''the field [culture in international business] has become stuck in a ... rut and more radical thinking is necessary'' (Tung and Stahl, 2018, 1172, quoting Devinney and Hohberger, 2017, 48). Tung and Stahl continue in their literature survey that

> *"Buckley et al. (2017) stressed the need for IB research to embrace interdisciplinary research methods and multi-level approaches to study phenomena-based and -driven research, such as the rise of economic nationalism and income equality (in short, grand challenges) that we have alluded to in this paper. In their opinion, this can help bring about a ''renaissance in international business research'' to attain a bilateral or multilateral exchange of theories and research methodologies with other disciplines"* (Tung and Stahl, 2018, 1185).

Tung and Stahl (2018) survey the international business scholarly literature's focus on culture and find this subfield to need new conceptual approaches: "[P]rogress in the field has been slow and continues to be hampered by overly simplistic and incomplete accounts of culture, inadequate conceptualizations and operationalizations, an overreliance on distance concepts and dimensional models of culture, and other theoretical, conceptual, and methodological limitations" (1172). Tung and Stahl echo the call of others:

"The international context of business is ripe for new theory development involving unique constructs. Thus, the final category of influence involves the development of theory to explain phenomena that emanate from the international or MNE context. While insights may be drawn from existing theory, the international or MNE context requires a new causal logic to explain relationships" (Thomas, Cuervo-cazurra and Brannen, 2011, 1077).

This paper first outlines the conceptualization of culture as a factor shaping nationalistic behavior as it relates to international business while dialoguing with selected scholarly literature. Tung and Stahl argue that "we [the scholarly discipline] need to adopt a multi-method approach that draws on an array of research design options and methods, including qualitative methods" for "greater attention to process and context" (2018, 1183). This paper's theoretical framework interlinks cultural phenomena at the individual, organizational, national and international systemic levels of analysis with a focus on policy. This analysis aims to be useful in application. The Data and Methodology section highlights that a theory-informed survey of the public record provides useful macro-level insights along with triangulation utilizing scholarly sources. The Results and Discussion section applies the propositions developed in the preceding critical dialogue with Tang and Stahl (2018) and Peterson and Barreto (2018). It develops the concept of economic nationalism with a focus on the Ghosn Renault-Nissan case.

The Path Forward section integrates the economic nationalism framework developed here with the Trompenaars and Hampden-Turner model. It illustrates the usefulness of this incorporation for teaching future supervisors managing diversity amidst economic nationalism predispositions in the context of ineluctable globalization. It offers suggestions for complementing Trompenaars and Hampden-Turner in training future managers regarding organizational leadership in relationship to nationalism and stereotyping. The comments highlight the escalating prominence of economic nationalism in international affairs amidst the Covid-19 pandemic global crisis. The conclusion notes the implications of the national securitization of public health and health care more broadly in response to the pandemic.

LITERATURE REVIEW

Cultural Identity and Actor Behavior

At the collective macro, community-level of the analysis of culture as behavior, Tung and Stahl (2018) reference Inglehart and Norris (2016) in analyzing the significance of cultural polarization and conflict. They display themselves in "cultural backlash" as behaviorally expressed in the rise of populism driving Brexit and Trumpism (Inglehart and Norris, 2016, 13). The intensifying dissatisfaction of heretofore societally dominant, more traditional, older, religious, less formally educated, male, Caucasian segments of society to cultural diversification contributes to polarization. Charismatic political entrepreneurs identify the contextual political opportunities and offer themselves as the leaders around which the discontented can rally. "The evidence examined in this study suggests that the rise of populist parties reflects, above all, a reaction against a wide range of rapid cultural changes that seem to be eroding the basic values and customs of Western societies" (Inglehart and Norris, 2016, 30). I.e. Tung and Stahl point to Inglehart and Norris (2016) to support the contention that the cultural backlash against evident domestic group power shifts is due to widening constituency cultural divergences. They are a primary cause of populism; it is not merely rising class income inequality *per se* (Tung and Stahl, 2018, 1172). Inglehart and Norris (2016) emphasize the importance of cultural change as a contextual factor, which is a focus of Tung and Stahl (2018).

Cultural change and conflict analysis here centers on relationships bridging different behavioral levels of analysis, i.e. at the individual, organizational, state and international systemic levels. This study proposes a social psychology-based theory of nationalism to conceptualize these dynamics, applying the framework developed in Cottam and Cottam (2001). Individual, organizational and national identity conflict dynamics amidst intergroup competition, cooperation and conflict help drive change in the policy making

environment of business and economics. Values may be conceptualized as motivations for behavior, i.e. value is shorthand for motivational value, or simply motivation. The observer infers these values from actor behavior implying a desired future state of affairs. Value motivations may be defined as "striving to obtain a more desirable future" as reflected collectively through strategic policy (Vohs and Hafenbrack, 2018, para. 2).

Affective/emotional predispositions regarding different behavioral choices implies that these emotions are important in driving behavior (Cottam and Cottam, 2001, 99-105). In some situations, formalized, articulated ideals can override emotional predispositions. In conceptualizing a group or community's values, individual member exceptions are more likely to be subsumed during a crisis within the prevailing affective inclination regarding ethical behavior choices. A national community's affective and behavioral policy predilections together are stimuli response attitudinal inclinations that collectively constitute a national community's culture. Culture, including prevailing notions of morality and ethics, have strong affective/emotional connotations in periods of conflict and crisis. Collectively displayed intense concern with the influence of that cultural community/national group is a value motivation.

A group/community may have other value motivations, e.g. economic profit. A national ingroup has more than one motivation for its collective policy behavior pattern predisposition. Different values are advanced by different ingroup constituencies, e.g. many in the US business sector favor more trade with China, while the US national security sector is more cautious. Some value motivations are more intense and salient than others in different social, economic and political contextual environments. The irremediably incremental policy making process for a large community or organization aims to accommodatively reconcile these values, addressing all of them in making policy. The collective system of these attitudinal response predispositions including in the form of policy indicate a more desirable future state of affairs which the observer as analyst identifies and articulates. I.e. a leader, citizen or employee does not have to be consciously aware of and articulate the actual collective values of an organizational actor in order for that collectivity to display those values.

Leaders and participants will tend to offer self-justificatory explanations for their behavior utilizing reference to ingroup romantic self-image symbols or memes, including favored ideological symbols. "Heider (1958) postulated that a positive self-perception is necessary for positive [cognitive] balancing to occur [in] that self-concept expressed through self-justification is a form of CD [cognitive dissonance] reduction" (Wagner, 2017, 211). Building on Heider's work, Hanson and Yosifon survey the research and note that "[p]eople are generally averse to being dishonest, and will avoid lying without good reason. One central lesson of the research on motivated reasoning, however, is that a ready way to avoid lying is to change beliefs rather than behavior. Dissonance can be induced or introduced into a circumstance of clarity and consonance" […] [*sic*] (2004, 109).

Emotions energize large human communities to behave collectively to achieve an implicit desired future, e.g. national defense against a perceived intense threat, not philosophies and ideologies *per se*. The latter tend to evoke emotions insofar as they are part of the romantic, idealized stereotypical self-images for the national ingroup, e.g. Americans are patriotic, rugged individualists. "Symbols … arouse strong feelings as they poignantly articulate the idea that all members of a community share the same destiny" (Issa, 2016, 3). *Homo sapiens* has evolved to develop the capacity to differentiate itself into "super-large" ingroups, e.g. nation-states, by relying upon symbols to identify individual members and exclude others (Moffett, 2013, 221). Membership in a national ingroup correlates with collective ingroup predispositions to be vulnerable to intense emotions (Pettigrove and Parsons, 2012). Leaders attempt to manipulate these national cultural symbols to shape political and policy making processes. While appealing to nationalist sentiments may offer human resource mobilization capabilities, MNE leadership seeks to avoid offending national group constituent members within the organization. Affronting national self-identity ingroups generates intraorganizational polarization and consequent dysfunction. I.e. intensifying intra-organizational national

subgroup mutual contempt, rivalry, suspicion and fear obstruct effective intra-organizational communication and management.

The analyst may portray a national community's cultural system of behavioral norms at one point, although this ecological system evolves over time and context. Different values/motivations predominate in particular social and political milieus over other values. E.g. Chung and Woo have shown that Korean individuals who feel positively affirmed regarding their national cultural identity are more amenable to positive affirmation of other national groups. This affirmation extends towards the culture of their former imperial occupier, Japan (2015). National cultural constituent intergroup conflict reduces MNE capacities for cooperative organizational behavior to achieve organizational goals. National group members tend to display similar behavior patterns associated with intense ingroup loyalty solidarity in a context of high intergroup conflict, i.e. intense emotional affect and stereotyping (Cottam and Cottam, 2001, 99-122). Intra-organizational effective communication and cooperation becomes more difficult in an organization polarized around national subgroups. From another perspective, Horak highlights the intensity and salience "as an institution" of Korean affective, ascription-based ties among individuals, *yongo* (연고), in a competitive business context. Expatriates should expect that among corporate staff these ties will override "a corporate code of conduct that prevents certain information from being revealed to competitors" (2018, 212).

Trompenaars and Hampden-Turner (2012) aim to focus on organizational leadership's awareness of these differing national cultural norms and values. A manager's goal is to integrate them through effective MNE intra-organizational communication. Organizational leadership should successfully orchestrate intra-organizational relations, i.e. generate high morale, to allow for effective intra-organizational communication. Trompenaars and Hampden-Turner's conceptualization of cultural behavioral norm and value change centers on increasing cognitive and affective tension. This tension emerges from a growing divergence between a national group's values and the governing, dominant stratum's imposed behavioral norms. The existence of such a significant tension implies that the behavioral norms are imposed upon an increasingly recalcitrant group. This recalcitrance may have been present at the beginning of the relationship. This resistance may have intensified over years and generations as the enforced behavioral norms become too onerous due to the changing environmental context. This context includes the evolving values of subordinate groups.

In their discussion, Trompenaars and Hampden-Turner highlight the anomalies involving eastern Europe. They underline surprising findings regarding stated egocentric, individualistic policy preferences of middle level managers. They appear to reflect a continuing backlash against the collectivistic norms imposed under Communism (2012, 71-72, 176). A generation later, changing contexts produce evolving collective behavior patterns manifesting themselves in shifting, conflictual norms, at least cognitively. E.g. in eastern European democracies, various forms of post-Communist "nostalgia" have emerged among different more or less disillusioned populist constituencies in different national contexts (Głowacka-Grajper, 2018, 930). A preoccupation with what is perceived as the best policy prescription for the well-being of the nation is a consistent feature of these discussions. To some degree, these universal appeals to national well-being are political efforts to shape the national policy making process to justify and defend the interests of particular national societal constituencies.

Behavioral Analysis of Culture

Culture as a ubiquitous factor in societal cleavage and polarization issues is a focus of media discourse. Tung and Stahl (2018) highlight the importance of culture in societal and global conflict topics. E.g. growing income inequality and insecurity, immigration and refugees, terrorism and human rights violations "all have a distinctly cultural component" (1168). Tung and Stahl (2018) applaud the call by colleagues for redirecting international business research towards these "big questions" and "grand challenges" (1168,

quoting Buckley, Doh and Benischke, 2017). This analysis aims to contribute from the perspective of nationalism and national self-expression conceived as the participatory dynamics of national cultural ingroup loyalty in relation to organizations.

Tung and Stahl highlight that a levels of analysis challenge confronts the study of culture as a contextually dependent, explanatory factor in international business behavior. Focusing on the circumstantial dynamics of culture brings into focus the dilemmas of extrapolating phenomena across "levels of analysis" in order conceptually to "bridge" them (2018, 1177). E.g. Hofstede (1980) authored a seminal study on the impact of national cultural differences on international business. He cautioned against fallacious extrapolation of his findings to predicting individual behavior. His typology of dimensions of differences between national organizational cultures "are meaningless as descriptors of individuals or as predictors of individual differences because the variables that define them do not correlate meaningfully across individuals" (Minkov and Hofstede, 2011, 12). Such an inappropriate extrapolation from the national level to the individual level would be a case of an "ecological fallacy" (Tung and Stahl, 2018, 1171). The latter is

> *"the fallacious inference that the characteristics (concepts and/or metrics) of an aggregate (historically called 'ecological') level also describe those at a lower hierarchical level or levels. The fallacy is also sometimes called the 'disaggregation error' (Van de Vijver and Poortinga, 2002); the 'fallacy of unwarranted subsumption' (Knorr-Cetina, 1988); Galtung calls it 'the fallacy of the wrong level' (Galtung, 1967); or 'the fallacy of division' (Aristotle, 350BC in Axinn, 1958). In short, each part is assumed to have the same characteristic or characteristics of the whole and thus that extrapolation from a higher level to lower ones accurately describes the lower. An illustrative example is: the false derivation that any Japanese individual is collectivist because Japan, it is supposed, is culturally a collectivist country (cf. Ryang, 2004). A completed jig-saw is usually a rectangle, but the individual pieces of the jig-saw are not rectangles. The colour green is a composite of blue and yellow"* [*sic*] (McSweeney, Brown and Iliopoulou, 2016, 47).

"A *disaggregation error* is made when a higher order characteristic is incorrectly attributed to a lower order" (Van de Vijver and Poortinga, 2002, 142). The ecological fallacy is moving from a collective, behavioral organizational level to extrapolate individual behavior, inappropriately. The atomistic fallacy is extrapolating to the organizational behavior level regarding the impact of culture from studying individuals' cultures (Tung and Stahl, 2018, 1176). Tung and Stahl argue that "multilevel research questions require adequate concepts and theoretical rationales for each level of analysis, as well as auxiliary theories that explain connections between levels" (2018, 1177). The dynamics of national cultural identity expression bridge variables at the individual decision maker and collective behavioral levels of analysis to explain organizational behavior in multinational contexts.

Knorr-Cetina proposes that

> *"Macro-sociology recognizes not only aggregate properties of populations derived by simple addition from the characteristics of individual population elements (for example, the variable population size). It also recognizes 'emergent' properties of social units. In fact, macro-sociology and social structuralism appear to be consistently defined as the study of those 'emergent' properties which macro-scale units are seen to possess 'above and beyond' those of micro-scale units"* (1988, 34).

Whether or not culture is always a primary factor shaping the behavior of an organization is context dependent, i.e. MNE material profit expectations typically do determine MNE behavior. In other environments, the national subgroup components of an MNE may collectively come to perceive the critical

influence interests of their national communities as confronting intense challenge. This confrontation may come by corporate leadership behavior, external state government policies, or some collectively perceived challenging combination of factors. Then national ingroup political loyalty dynamics can override these prospective material profit gains and generate substantial material losses. An appropriate theoretical framework for the political psychology of nationalism allows moving beyond dismissing this predictable consequential behavior as being irrational.

Tung and Stahl highlight the importance of the analysis of "economic nationalism" as one of the "grand challenges" in the study of culture's impact on international business (2018, 1185). The challenge of nationalism is referenced once in Buckley, Doh and Beniscke:

> *"As such, in the evolution, or stalling, of globalization, a host of challenges awaits: is the reaction against freer trade permanent and what are its consequences? Is globalization fracturing and is the global project dead, destroyed by its own patterns of success and failure? These questions are not only important to the field of IB in general, but particularly in the context of grand challenges, because <u>a move towards renewed nationalism will make it more difficult for MNEs and non-traditional organizational forms to address these challenges - or may further accentuate the impact of grand challenges on MNEs themselves</u>"* [emphasis added] (2017, 1057).

Tung and Stahl note that in the current state of research into the relationship of culture to international business, the impact of culture in applied areas is difficult to demonstrate. In specific "subdomains" in the field, such as "international joint ventures," "market entry," "cross-border knowledge transfer" the "strength of the relationship between cultural differences and IB outcomes tends to be relatively weak in practical terms" (2018, 1177). Tung and Stahl advocate for identifying the context in terms of "situational factors" that determine "how and when it [culture] makes a difference" (Ibid.). They call for a conceptualization of culture from the perspective of "context" (Ibid.). Culture is observed through collective behavior. This paper's theoretical framework facilitates situationally identifying culture as an organizational policy making process factor shaping collective perceptual and behavioral patterns. Characterizing the situational factors that evoke these behavioral patterns then becomes the aim. Peterson and Barreto (2018) respond explicitly to Tung and Stahl (2018). Peterson and Barreto "define culture as ''patterns of social behavior, social interaction, and conscious and unconscious influences on action that recur in or typify a society'' (Peterson and Barreto, 2018, 1191, referencing themselves, 2014, 1134). *Culture represents discernible societal processes that occur regularly, though not invariantly*" [emphasis added] (Peterson and Barreto, 2018, 1191).

Other writers note that culture as a causal factor in organizational behavior is not always predominant. Tung and Stahl (2018) conceptualize culture's role in IB as a "probabilistic behavioral manifestation with contextual elements" (1176). They point specifically to the work of Devinney and Hohberger who dynamically contextualize culture's role in IB: "[c]ulture cannot be thought about just as a latency but as a latency that is revealed in a context" (Devinney and Hohberger, 2017, 56). This paper suggests that culture as an organizational driver may be conceptualized as emerging within crisis contexts. I.e. the members/citizenry of an organization collectively perceive themselves as sharing a culture as members of a cultural community under challenge. This community has a shared past and therefore the expectation of a common future that collectively identifies an intense challenge to its influence in the environment. Peterson and Barreto continue in arguing that culture should be conceptualized in IB at a collective, and not at an individual level. This collective definition maintains continuity with the use of the term in other social sciences (2018, 1191). They also note that "[s]ocieties of special interest to IB include governmentally bounded and ethnically based geographic groups including diasporas that typically have a geographic homeland" (Ibid, referencing Peterson, Søndergaard and Kara, 2018).

Peterson and Barreto (2018) in effect advocate for conceptualizing culture as patterns of collective behavior that demonstrate intensely shared ingroup self-identification with a collectivity. The fundamental relationship to the individual is that upon birth a specimen of *homo sapiens* is socialized by various collectivities into self-identity ingroups, and these have their respective cultures. A family may have a culture and it may be a powerful focus of loyalty and allegiance regarding behavioral action to achieve ends perceived as necessary for individual well-being, broadly conceived. Individuals are socialized into and adopt additional ingroup identities, e.g. their schools, sects, universities, cities, regions, classes, employers' organizations, nations and states. The respective affective and perceptual intensity of self-identification with these multiple different ingroups varies. Cottam and Cottam (2001) argue that the formation of a national identity refers to the emergence of a primary intensity self-identity community. I.e. it is the largest perceived, primary intensity shared self-identity community of self-perceived common fate (2). Nation-state numerical population sizes range from as small as Iceland to as large as China.

Identity Community Complementarity and Organizational Nationalistic Behavior

As Byrne notes, primary, terminal, i.e. national self-identity, including ethnic/cultural self-identity community membership, appears to be a consequence of socialization, as with family self-identity. "Civic conceptions of national identity," in contrast, focus national loyalty upon a territorial community (2018, 2). Immigrant national communities, such as Brazil and the US, would be examples in which the latter belief predominates. Education and socialization institutions teach children that treason against the nation is unforgivable under any circumstances. E.g. South Korean mainstream nationalist historiography confronting local collaborators with the Japanese former imperial occupier portray their actions as unpardonable crimes: "in common parlance *ch'inilpa* [collaboration] does not refer to a political faction which relies on foreign support, but rather has the far more negative connotation of collaborators and national traitors who committed unpardonable antihistorical (*panyoksajogin*) acts" (De Ceuster, 2001, 228). Soviet and Yugoslav state socialization institutions failed to override existing ethnic ingroup primary intensity self-identifications in these multinational states. Despite great expenditure of resources and use of extreme coercion, they failed to create a new territorial community-based primary intensity self-identification among their respective modal citizenries.

Cottam and Cottam endeavor to operationalize the intensity of this shared national identity. Indicators focus on collective behavior patterns signifying a prevailing view that the community has the right to national self-expression via a sovereign state. E.g. the greater susceptibility of public opinion to influence via intense manipulation of positive and negative stereotypes of national self and other is one marker. Nation-states thus have a relative resource mobilizational advantage over non-nation-states, ceteris paribus (2001, 149-152).

Other signs may also be found in the self-perceived cultural uniqueness of the community, including its linguistic composition, e.g. the extent to which the national language is considered distinct. Another indicator is the extent to which the community shows a predisposition as manifested in its educational system to socialize children about a historical golden age in pre-modern times. An additional marker is the degree to which the community shares a belief that it has a geographical territory that it historically associates with that reputed pre-modern golden age. The importance of so-called Judea and Samaria and Jerusalem to Jewish nationalism and Kosovo to Serbian nationalism are examples. Another gage is a shared community worldview that within those common ethnic and territorial boundaries, it is a unique spiritual/religious community. A shared self-defined belief that the community belongs to a unique genetic/racial group of people in terms of (alleged, subjectively defined) phenotypes is another indicator. The prevalence in collective, shared community memory of suffering a genocidal experience is an additional marker. Also, a prevailing community worldview must exist that the community has the contextual, comparative power capability base to create an economically viable and militarily defensible state (Ibid., 2001, 32-47).

Nation-states are an ideal-typical category, i.e. their component self-identity communities all compliment rather than conflict with each other; they display "identity community complementarity" (Cottam and Cottam, 2001, 45-47). I.e. they display a community base whose modal citizenry share an assumption of co-terminus overlap of state territorial boundaries with primary intensity national ethnic, sectarian and racial boundaries. The controversy surrounding the Carlos Ghosn case, as discussed below, highlights the impact of economic nationalism. France, the headquarters of MNE Renault and Japan, the headquarters of MNE Nissan, are two examples of communities approaching the nation-state ideal-typical model laid out by Cottam and Cottam. Ghosn, holding simultaneously Brazilian, Lebanese and French citizenship, illustrates the relationship of nation-state governments to diaspora behavior as perceived as being exploited by other nation-states. State elites "use transnational practices of diaspora mobilization as a means of generating material resources and political support in an increasingly integrated world economy" (Adamson and Demetriou, 2007, 491).

In their dialogue with Tung and Stahl (2018), Peterson and Barreto emphasize the importance of context-focused factors shaping patterns of behavior via patterns of collective perception. They warn against conceptualizing, analyzing and measuring culture in terms of a focus on the mental equipment within a particular individual's mind. Membership in ingroups shapes these patterns of perception and behavior, especially during times of perceived crisis:

> "Several of the commentaries that Tung and Stahl (2018) summarize suggest that IB is slipping back into the Rokeach (1968) era by overemphasizing personal values and missing the implications that value-linked societal characteristics have for the less deliberative aspects of cognition. Such use creates confusion about the meaning of culture in IB and a discontinuity with its use in major culture theories in other fields (Fischer, 2007; Kroeber & Kluckhohn, 1952; Ortner, 1984; Peterson & Barreto, 2015)" (Peterson and Barreto, 2018, 1203).

These "value-linked societal characteristics," shaping "the less deliberative aspects of cognition," characterize ingroup vs. outgroup behavior. Group behavior functions at another level of causality and analysis than individual cognition. Group behavior emerges when intense but latent affective common cultural bonds become salient due to dynamic contextual factors, manifesting in group collective perceptual trends. These shared so-called value-linked societal characteristics generate emerging, systematic patterns in the group's prevailing perceptions of relevant policy targets. Amidst a crisis, they simplify as they become predominant, i.e. stereotypes (Cottam and Cottam, 2001). Organizational leadership makes policy decisions on the basis of the politically prevailing perceptions of their targets within the initiator. Predictable patterns in perceptual stereotyping and their associated policy behavior patterns are particularly prone to emerge among nationalistic actors, including nation-states and their diasporas (Cottam and Cottam, 2001, 22-24, 100, 105-122).

This paper focuses on the collective, organizational level in understanding cultural values as a group driver to understand the less deliberative aspects of cognition, i.e. stereotyping of target actors. An assumption in Cottam and Cottam drawing from Fritz Heider's theory (1958) of cognitive balancing is that motivation shapes perception. If a group collectively as reflected in its government/management/leadership sees an intense challenge, then the challenger will more likely be perceived in affective, stereotypical, i.e. simplified, terms. This simplification associates with intensification of affect so as to facilitate urgent action to deal with the challenge rooted in individual human nature, i.e. fight or flight (Cottam and Cottam, 2001, 11-12). For collective organizational behavior, the initiator will tend to perceive the policy making process in the perceived challenger/target as less complex and more limited than it really is. The parameters of perceived policy option range for the initiator in dealing with this adversary will tend to narrow due to this stereotyping of the other. Plausible policy choices to influence the politics of the policy making process within the target will more likely be unseen or dismissed. The relationship with the target is increasingly seen as zero-sum rather than win-win, and the aim moves toward subduing, even eliminating, the target. As

noted, nationalistic individuals and collectives are more prone to engage in such stereotyping (Ibid., 87-122).

Economic Nationalism

This study conforms with Peterson and Barreto's conceptualization of culture as societal values in the form of collective motivations revealed in behavior patterns pointing towards a desired end-state:

> *"Values, in their* [Kroeber and Kluckhohn, (1952)] *use, describe ends that are implicit in a society's patterns of behavior,* whereas a different term, attitudes, designates what an individual personally endorses. Cultural anthropology has continued to use values to designate societal characteristics, including a society's working consensus (not homogenous agreement) to behave in ways consistent with societal values (Fischer, 2007; Ortner, 1984)" [emphasis added] (Peterson and Barreto, 2018, 1193).

This end state is inferred by the observer/analyst; it may or may not be articulated more or less clearly by the collectivity's leadership. The end state may imply maintenance of organizational autonomy. E.g. national subgroup organizational suspicion rejects vociferously an MNE corporate so-called national champion transforming into a transnational entity by merging with another national champion. Corporate national champions are viewed as components of the influence capability of the nation in the world. Today, Russian fossil fuel corporate entities Rosneft and Gazprom are "at the center of a drive by the Kremlin to create "national champions" to promote Russia's geopolitical and economic interests" (Higgins and Kramer, 2020, para. 24). Witt notes that international business research has "a long tradition of looking at questions of national competitiveness." US Cold War defense department spending "funded the rise of Silicon Valley and other high-tech clusters" that lead to American preeminence in the Internet, microelectronics and aviation industries. "In effect, US defense spending assumed the role of industrial policy in other countries" (2019, 1070).

The *New York Times* reported on June 30, 2020 that the Indian government banned nearly sixty mobile phone Chinese software applications, including the globally popular TikTok video-sharing platform. The move follows renewed deadly territorial border dispute violence with China. New Delhi views foreign IT company digital acquisition of personal user data as a national security threat to Indian sovereignty via "digital colonization," a perceived threat from China that has intensified (Abi-Habib, 2020, para. 21). Nationalistic collective organizational behavior can lead to cooperative integration strategies to achieve national goals against a perceived, common challenge. E.g. west European nation-states subsidized and integrated their aerospace industries to counteract American corporate economic sectoral dominance in aerospace. ""The importance of Airbus transcends the purely economic aspects of its activities," said Daniel Capparelli, head of the trade practice at Global Counsel, a consulting firm. Airbus, he said, is the "flagship example" of choosing and supporting European Union-wide industrial champions. Its success "enables Europe to throw its weight around and compete with the U.S. on a global scale," said Mujtaba Rahman, managing director for Europe at the Eurasia Group, a political consulting firm" (Reed, 2020, para. 19-20). Middle power European nation-states integrate their resources to promote their national development goals against US economic sector monopoly threats.

Automotive industry forecasts indicate global automotive industry consolidation is inevitable due to overcapacity and the immense outlay necessary to create the era of autonomous, electrified vehicles. "Car mergers usually fail" with the exception of Fiat and Chrysler, unlike Chrysler's 1998-2007 "legendary failure" merger with Germany's Daimler-Benz (Ewing, Boudette and Dooley, 2019, para. 23-24). American stockholders challenged Chrysler's merger with Daimler, protesting Daimler's dominance in what was allegedly to be a "merger of equals" despite Daimler paying $34 billion (O'Dell, 2000, para. 6). Chrysler's second merger with Fiat occurred after its 2009 bankruptcy and generous US government subsidies,

restructuring and downsizing to sell it amidst the 2008 Great Recession (Mitchell and Pulizzi, 2009). Fiat-Chrysler and Peugeot/PSA initiated their merger in late 2019 and will have "to navigate the political crosscurrents in France, Italy and the U.S., where the automakers have deep national roots" (Ebhardt, Nussbaum and Lepido, 2019, para. 13).

The emergence of economic nationalism occurs under particular contextual circumstances which government and corporate leadership can attempt to influence and shape. European integration peace strategy functionally aims to influence regional political dynamics to avoid circumstantial political conditions that increase propensities for collective nationalist behavior (DeDominicis, 2020). If leadership fails to navigate the contextual currents effectively, an organizational crisis may emerge while corporate leadership may be targeted for blame. The case study of Carlos Ghosn discussed below indicates that his arrest in Japan was due to more than allegations of embezzlement. Reports imply Japanese suspicion that he was advocating France's interests over Japan's in attempts to further integrate Renault-Nissan-Mitsubishi alliance drove both his arrest and bizarre escape. An attitude can be formalized and endorsed, e.g. as ethical principles or law, but the actor may not necessarily display that endorsed attitude towards a perceived enemy. Intensely conflictual, zero-sum behavior indicates intense perception of challenge from a target and the salience of formally articulated ethical parameters may decline as the initiator responds vigorously.

The conceptualization of culture and its relationship to collective behavior here focuses on the interactive intergroup context of competition and cooperation. National cultural group loyalty and attitudes have to be activated/stimulated to reveal their policy making salience in ingroup vs. outgroup behavior. This ingroup vs. outgroup conduct intensifies obstacles to communication and cooperation, whether the cooperation is to obtain material profit or some other aim. Attitudes are conceptualized here as stimulus response patterns. Attitudes are agglomerations of perceptions of relevant targets' motivations and capabilities that evolve. They may become institutionalized, e.g. Germans routinely responded with suspicion to French policies for much of their history until the postwar era (Cottam, 1977, 61-62). They may evolve; the EU integration movement aims to promote initiator perceptions of complexity in target motivation to support promotion of cooperative attitudes. European integration's end state is change in values, including historically intense European national ingroup external influence drives. The EU integration movement strives to build a broader, more intense European identity superseding a value preoccupation with national sovereignty. It provides incentives to change in perceptions of nation-state-based actors. The accumulation of these perceptual pattern changes ideally encourages cooperative attitudes, in turn ideally leading to the long-term trend of changes in values.

These values functionally targeted for change include national self-identity sovereignty values, i.e. nationalism. MNEs play a critical role in these collective trends because they are more prone to exploit the greater profitability that is apparent to them through utilizing a stable, integrating pan-European market. Regulating to promote integration among European economic enterprises, and MNEs in particular, is an engine for these collective trends. The great majority of European Union law regulates the European internal market (Nugent, 2010, 56). Lou highlights that self-perceived "losers" in these Euro-globalization processes react, resulting in nationalist polarization. E.g. those traditionally status-dominant cultural groups that today are comparatively lacking in foreign language skills and higher education certifications, may become the core of populist Euroscepticism. Brexit would be one such manifestation, illustrating that economic nationalism can sacrifice corporate material profit in favor of national sovereignty demands (2017, 526). Despite economists' prevailing views of the net economic loss to Britain from Brexit, and the overall opposition of the British business community to Brexit, the modal British citizen demanded it. "If there is a pattern, it is that big businesses, including foreign-owned ones, are anti-Brexit, while significant minority of smaller British-owned ones are Leavers" (McRae, 2016, para. 3).

Culture and Change

The predominance and ecological systemic configuration of cultural values and norms within a polity change among evolving constituencies concomitantly with socio-economic community development. Familiar nationalistic behavior patterns among some other constituency actors within national publics remain present. Tung and Stahl (2018) address this transformation by referencing the work of Inglehart and his collaborators and more recent contributions. Tung and Stahl note that the ongoing World Values Survey overseen by Inglehart has revealed evidence of "massive cultural change" globally in a relatively brief period of time (2018, 1178, referencing Inglehart and Baker, 2000). In yet another response to Hofstede's dimensions approach, Tung and Stahl assert that Taras, Steel and Kirkman (2012) "uncovered dramatic shifts in cultural values when compared with the original data reported in Culture's Consequences [Hofstede, 1980]. To give one example, they found that South Korea's score on individualism has risen considerably, from 18 in 1960 to 61 in 2000" [*sic*] (2018, 1178-79).

Tung and Stahl (2018, 1179) point to work by Kirkman, Lowe and Gibson (2017) on the transformations in South Korea that have occurred in terms of Hofstede's cultural dimensions model. They attribute these changes as due to South Korea's "modernization." "South Korea has seen strong modernization in business and society as well as a decrease in emphasis on Confucian principles, and these shifts are also reflected in a major decrease in uncertainty avoidance (i.e., from 85 to 37) and increase in masculinity (i.e., from 39 to 62)" (Kirkman, Lowe and Gibson, 2017, 23). Tung and Stahl further note the role of modernization in changing scores across Hofstede's cultural dimensions by again referencing the work of Taras, Steel and Kirkman (2012). The latter's "meta-analysis revealed that Hofstede's scores always had the strongest correlations with measures of societal progress (e.g., indicators of human development, political freedom, GDP/capita, gender equality, and innovation) obtained in the 1980s and the weakest correlations with measures representing the 2000s" (Tung and Stahl, 2018, 1179).

Taras, Steel and Kirkman note that "[a]t this present rate of decline, none of Hofstede's scores will have a recognizable connection to the world's culture by 2050 with some, such as masculinity, probably becoming fully disconnected between 2020 and 2030" (2012, 337). Viewing culture as an aggregate of dimensional characteristics overlooks culture's role as intense but often latent cultural ingroup delimitators. They set the boundaries for assertive allegiance behavior and mobilization, involving stereotyping and affect, emerging within dynamic conflictual contexts of crisis.

Attempts to conceptualize values as motivations/drives at an individual level of analysis include Abraham Maslow's familiar hierarchy of needs framework. Individuals manifest a preoccupation with satisfying needs. Upon satisfaction within a societal context of one category or set or type of need, the actor then behaviorally modifies to display a preoccupation with the next set or type on the hierarchy. In hierarchical order, they are "physiological, safety, love, esteem and self-actualization" and "[t]here are reversals and jumps in the hierarchy depending on the motivators an individual has to achieve them" (Day, 2017, 4). In terms of the IB literature that calls for value to be conceptualized as a behavioral preoccupation with achieving an end state, Maslow's needs may also be termed values. Criticisms of Maslow's hierarchy in terms of their validity regarding individuals are varied. Individual values are myriad and diverse. A claim in this study is that when individuals aggregate into national organizations and ingroups, the organization begins to manifest patterns of behavior that are regular and may be typologized. These patterns involve perceptual manifestation predispositions that intensify during crises challenging the ingroup, i.e. stereotyping, and the policy behavior strategy displays that associate with them. E.g. an initiator actor perceiving a dangerous enemy threat from a coequal target power would exhibit the strategic policy of containment towards the target (Cottam and Cottam, 2001, 100, 121).

The values/motivations that predominate in an ingroup organization depend upon the context factors and stimuli. When applied to vast, complex organizations such as national communities, Maslow's hierarchy

of needs/values appears to display regularities. As Inglehart's findings have shown, so-called developed societies tend to display greater political support for so-called post-industrial, post-material needs/values than so-called developing societies. 2020 Germany manifests different needs/values/drives/motivations of its collective policy behavior than 1940 Germany while militant nationalist authoritarian constituencies endure within it. Nationalism as nationalistic behavior value tends to associate at a community level with satisfaction of safety, security and status needs. Post-modern/post-nationalistic behavior tends to associate with the highest levels of need, the need for individual self-actualization, motivating social behavior in Maslow's hierarchy (Venter and Venter, 2010).

Pat Tillman, the NFL football player, "walked away from his $3.6 million NFL contract to enlist in the [US] Army" after the September 11, 2001 attacks later to die by friendly fire in Afghanistan (Lingle, 2010, 30, quoting Krakauer, 2009, jacket). Individuals may be more or less unaware of their own values and attitudes, including primary intensity loyalty to the nation, even if they attempt to articulate them. On 9/10/01, Tillman may not have known what he would feel inexorably impelled to do immediately after the attacks on 9/11 even in the unlikely event that he had ever considered such a 9/11 scenario. Someone may repeatedly claim rhetorically among their social circle that they live according to the worldview/belief/attitudinal principle that 'I always look out for #1, me, so money talks!'. Yet he or she may surprise, even themselves, by being among the first to join the military amidst a collective national security crisis.

At the collective level, national leadership will tend to articulate ideals and principles that have universalistic propaganda appeal, e.g. upholding human rights, to justify national influence expansion Ross, 2013, 287-291, DeDominicis, 2018, 16). During a crisis, the imperatives of national security tend to override those universalistic formal ethical principles as nationalistic constituencies come to dominate the policy making process. Societal behavioral norms may change in part due to the impact of socio-economic development and its promotion of greater awareness of unavoidable global interdependency among constituencies. Abraham Maslow's hierarchy of needs can be applied to collectivities and publics. Nationalism is a value as a motivation in certain contexts to satisfy these needs. Nationalism as a value can associate with different ideologies, and it can be part of an ideology, but it is not itself an ideology; it is rather a deep ingroup/outgroup political behavior pattern (Cottam and Cottam, 2001, 6-7). An ideology can be conceptualized as a systematized expression of norm and value ideals. If an ideology has a desired future or vision to actualize, then skeptics often label it "utopian" (Brincat, 2009, 587). The ideology may or may not be persuasively descriptive of the actual policy behavior of the articulator/adherent, collective or individual.

Culture, Globalization and Polarization

Current polarization and nationalist populism reflect this growing divergence of needs/values preoccupations among national constituencies amidst globalization. Regarding the Trump phenomenon:

> "Class scholars have documented that non-elites hold more traditional views than elites, including on "family values." That's why the culture wars express class conflict: Elites embrace political issues associated with their felt entitlement to self-development (such as the right to express oneself sexually, through L.G.B.T.Q. and abortion rights). Non-elites typically put a higher value on self-discipline and respect for traditional institutions that advance self-discipline -- religion, the military and family values -- shaping the politics of what used to be called "values voters.""

> "Does all this still hold in the age of President Trump? Sure does. Roughly 80 percent of evangelicals voted for Mr. Trump because they hoped he would deliver the Supreme Court, and he did. Aren't they outraged by his behavior? Not really, because they view politics as an arena where compromise is made with people unlike themselves in exchange for wins on issues that are central

to their [national] *identity. They rely on church, not politics, as the arena for forming a virtuous sense of self"* (Williams, 2020, para. 11-12).

Along with those changing needs/values/drives are changing behavior patterns. These systemic behavior displays are indicators of the values driving collectivities. These nation-state behavior manifestations include nationalistic behavior along with other values, but during an organizational collectivity crisis, nationalistic values will more likely predominate.

Nationalistic collective behavior obstructing effective multinational organizational mobilization can occur due to component national group mobilization vis-à-vis other component national outgroups. National ingroup solidarity mobilization can associate with different norms depending upon the contextual factors perceived as shaping the challenges to national sovereignty. As noted, nationalism, while a value and not an ideology, can associate with different ideologies and be part of an ideology. A self-labelled Communist actor may explicitly disavow nationalism but that actor's behavior patterns may still imply a deep preoccupation with national sovereignty and influence, i.e. nationalism. As noted, an ideology can be conceptualized as a philosophy of political norm and value ideals with a desired future/vision to actualize. Nationalism as a value/drive can vary in its association with different ideologies among segments of the public along with changing contextual conditions, including socioeconomic settings. E.g. liberalism, i.e. Washington's proclaimed Cold War-era value ideals, appealed to east European self-determination movement leaders opposing Moscow-installed, Communist totalitarian regimes. Thirty years later in markedly different political and socio-economic contexts, some of those same leaders, e.g. Viktor Orban in Hungary, mobilize nationalistic support with "illiberal" xenophobic appeals (Steinberger, 2018, para. 62).

Nationalism in developed states is more likely to remain as an intense but at times latent value among more vulnerable socioeconomic classes amid globalization's greater class and national status insecurity. Cooke, Mills and Kelly survey the literature critiquing Maslow's work as a reflection of its Cold War American context. They conclude that these authors "[a]ll recognize that Maslow's hierarchy [of human needs/values/motivations/drives] is a social hierarchy and see contradiction or tension in that not everyone can be self-actualized, yet so being is supposed to be a natural human condition" (2005, 135). Globalization and societal diversification have increased this anxiety and insecurity, contributing to the rise of conservative populist nationalism. Its manifestations include Trump's political success as well as Brexit.

> *"These demographic and attitude patterns seem consistent with both economic and cultural explanations for the widespread surge in populist voting, including for right-wing parties. Economically, these voters tend to be the losers from globalization, capital mobility, the knowledge economy, deindustrialization, and labor-replacing technology. Culturally, these are also the people who are have been losing status in an era of growing ethnic diversity and changing gender roles. Their communities are under stress for economic and cultural reasons simultaneously."*

> *"As a result, successful populists craft narratives that integrate economic and cultural concerns. The familiar litany of grievances has this double-barreled quality: Immigrants are taking our jobs, siphoning off our welfare benefits, making our streets unsafe, contributing to terrorism, and making our towns unrecognizable. The educated, privileged elite looks down on us, sends our jobs abroad, and coddles historically stigmatized minorities and the undeserving poor, who do not work half as hard as we do. We want our respectable jobs and our country back, but nobody is listening to us. These narratives have their sharpest political effects where economic and cultural factors interact"* (Snyder, 2017, 88).

Taras et al. (2012) and Kirkman et al. (2017) analyze changes in identity values but also changes in the contextual factors that cause nationalism to associate with different ideologies. Determining factors include the current global hegemonial power dominance that shapes the most feasible national paths to national

socioeconomic development. E.g. with Soviet disintegration at least until the rise of China, the soft power appeal of capitalism included its association with the power and influence of the economically and politically liberal US. Hanh asserts that Joseph S. Nye, Jr. originally conceptualized soft power as deriving from the attractiveness of a country's culture, political institutions and foreign policy being sufficient to change the behavior of others (Hanh, 2018, 82 referencing Nye, 2004, 7, 18-19, 30-32)]. The concept then evolved within Chinese discourse:

> *"By the time Nye's soft-power concept came to light, Chinese scholars used this notion as a universal reference framework, at variance with the original definition of soft power in accordance with national demands and interests. Depending on each scholar, the phrase "soft power" is translated into Chinese; ruanshili, ruanquanli, ruanliliang, and ruanguoli are the terms most used by scholars in this country. <u>Since then, although there are different views on soft power in China, the focus often falls into one of the following categories: (1) soft power theory is a national development strategy, and (2) the theory of soft power is a foreign policy. Category (1) mainly discusses the institutional reform necessary for economic development. Meanwhile, category (2) focuses on the establishment of foreign policy in line with the rise of China (Zicheng, 2003, pp. 116-117). Since Hu Jintao took power, the need to consolidate soft power and hard power to make China a global power was urgent as a national development strategy.</u> The emergence of peace-building in 2003 and the Beijing Consensus in 2004 especially brought "soft power" theory to the forefront as a widespread trend all over the country"* [*sic*] [emphasis added] (Hanh, 2018, 82).

China's humanitarian aid response to the Covid-19 pandemic for developing countries illustrates the culmination of this emphasis on soft power for China's rise in global influence. "COVID-19 has become a factor in the competition between the US and China over who is the better global citizen" [*sic*] (Mulakala and Ji, 2020, para. 1). The Chinese authorities see an opportunity to enhance their soft power international diplomatic bargaining leverage stemming from their relative success in responding to the Covid-19 pandemic. Chinese corporate philanthropists are providing humanitarian aid to the US, including Huawei: "Shipments of protective gear by Huawei, the Chinese telecom equipment giant that American officials have accused of spying for the Communist Party, have been heavily covered by Chinese state-run media. Huawei has said it would never allow spying on its customers" (Stevenson, Kulish and Gelles, 2020, para. 16). The Chinese government is fiercely protective of Huawei: "[b]ut even if Huawei is not government controlled, Chinese officials often defend it as if it were a strategically vital state asset" (Zhong, 2020, para. 10). Africa's urgent development needs induce governments to accept alluring infrastructure contracts with Chinese corporations despite their covert installation of signal intelligence gathering devices (Solomon, 2019).

South Korea's rapid economic development, the "miracle on the Han River" (i.e. the main river running through Seoul) is the foundation of its international soft power as a US Cold War client and ally (Howe, 2017, 249). Seoul adopted a capitalist development model highlighting a close state alliance with what became the family-owned commanding heights of the economy, the *chaebol* (Kim and Choi, 2019, 14). These highly diversified, export-oriented business conglomerates have extensive international operations and consequently support Seoul's overseas development assistance policies (vom Hau, Scott and Hulme, 2012, 195). Seoul's subsequent "globalization" of its foreign policy has been characterized as a national "status drive; an easy and cheap way of projecting a new Korean entity" (Lee and Lee, 2015, 132, quoting Kim, 2000, 3). In certain contextual dynamic circumstances, even highly developed societies with global MNEs headquartered within them display intense nationalism that is opposed to transnational globalization. Attitudes change more readily than long term predispositions towards collective behavioral displays of loyalty to a shared national ingroup. Perception of a shared national culture is a subjective assessment of shared membership in a community of fate. Attitudes change depending on the international and domestic

political context. Tung and Stahl note, "[u]nfortunately, few studies on culture in IB have systematically examined contextual moderators" (2018, 1177).

These contextual moderators include the collective ingroup member shared perceptions of self and other. In sum, the greater the self-perceived shared defining and delineating ingroup characteristics, including vis-à-vis outgroups, the greater the propensity towards nationalistic behavior. A conceptualization of contextual moderators requires a focus on factors also at different levels of analysis: 1) individual, e.g. human resources; 2) intra-organizational/ingroup, i.e. organizational characteristics, structures and policies and their system of aims, including the state as a vast, complex organization and; 3) strategic international relations, including international organizational, factors, e.g. the UN. The last of these three levels includes the international systemic level, i.e. the international alliance configuration among states and their proxies. States compete for influence more or less intensely with each other at times utilizing and influencing IB corporations/MNEs for diplomatic bargaining leverage (Cottam and Gallucci, 1978, 41). Individual-level contextual factors, e.g. socio-cultural generational changes in culture, may evolve more slowly than organizational variations, e.g. bankruptcy restructuring. Context determines if and when collective identity values are evoked, i.e. that which is intense but latent becomes salient. If they exist and are evoked, then they become salient in terms of organizational behavior, i.e. national component ingroup stereotyping towards challengers.

The impact of culture manifests itself prominently when, amidst intergroup conflict, the members of the organization share comparatively strong self-identification with the same national ingroup. As noted, the behavioral manifestation of strong culture is not always salient, i.e. cultural ingroup loyalty may be an intense value/motivation but latent until factors external to the organization/ingroup evoke it. Those behavior patterns include a greater propensity: 1) to perceive the external environment in terms of threats and opportunities for the national organization/ingroup; 2) to perceive those challenges in affective, stereotypical terms, i.e. perceptually to simplify the challengers' complexities in terms of motivational attribution to the perceived target source of the challenge, and; 3) to overestimate the organization/ingroup's relative power capabilities to overcome those challenges (Cottam and Cottam, 2001, 87-122).

The US is a nation-state but internal subnational racial identity polarizations reflect its compound identity complexity. Examples closer to ideal-type nation-state collective self-apparent ethno-cultural homogeneity include Iceland, Japan and Norway as well as postwar Poland (Cottam and Cottam, 2001, 18). Politically significant American subnational identity cleavages emerge around ethno-racial identity divisions (Cottam and Cottam, 2001, 71-83). Trump's populism has its enthusiastic core supporters among the white-assimilatory European-American subnational cultural ingroup. Building upon its White Anglo-Saxon Protestant (WASP) foundation, it has historically dominated the American nation-state. Its lower socio-economic strata are more likely to perceive a threat from globalization and American political value diversification. "This has helped to make the politics of identity prevail over bread and butter politics, severing social ties or empathies outside of one's own groups" (Kardaş, 2017, 101). The barriers to communication in the nation-state as a vast, complex organization are evident in the polarizing respective charismatic attraction and intense disdain engendered by Trump:

> *"the intellectual, popular, and policy imperatives of Trumpism are rooted in a new form of racial politics that I am calling white nationalist postracialism. This is a paradoxical politics of twenty-first-century white racial resentment. Its proponents seek to do two contradictory things: to reclaim the nation for white Americans while also denying an ideological investment in white supremacy. And they attempt to accomplish this feat by a highly selective reading of post–Civil Rights era US history"* [sic] (Maskovsky, 2017, 434).

Regarding management challenges, this polarization produces differing, affect-laden worldviews regarding the future of the US economy in response to the Covid-19 pandemic profound national crisis:

"One group remains a relative holdout in expressing faith that the economy will experience continuous good times over the next five years and that their own families will be better off a year from now: conservative Republicans. They are also far more likely to oppose the restrictions on activity [social distancing and shelter-at-home orders] *that public officials have put in place, saying they have gone too far."* […]

"The recent decline in [consumer] *confidence cuts across political and ideological categories, separating it from other recent periods where sentiment dipped among Democrats but not Republicans. Now, moderate Republicans have turned pessimistic, even as more conservative Republicans expect the economy to fare well in coming years."*

"Republicans, not surprisingly, are much more likely to give Mr. Trump credit for his handling of the crisis. Some 91 percent of Republicans said they approved of Mr. Trump's response, compared with 51 percent of independents and 22 percent of Democrats" [in *New York Times* SurveyMonkey results] (Casselman and Tankersley, 2020, para. 6, 15-16).

Self-described "conservative" Republicans, i.e. Trump enthusiasts, manifest worldviews reflecting their intensive ingroup vs. outgroup intra-American mobilization. This enthusiasm manifests itself in their consequent steadfast faith and trust in Trump and their concomitant intense disdain for Trump's opponents.

Culture and Mobilization

Rhetorical conduct is political behavior to be incorporated into a theoretical framework to conceptualize the role of culture in organizational strategy. Incorporating rhetorical performance in a theory of organizational national ingroup community motivation faces a paradox. For internal audiences, its articulations are at best often aspirational, and for external publics it is more typically propagandistic. It serves a mobilizational purpose and effective deployment of resources is critical for organizational policy and potential success. A determinant is on the nature of the source of the perceived challenge. Archetypical stereotypes of self and other are part of the romanticized symbol set of the nation, i.e. the primary, terminal self-identity community and its component communities. Tung and Stahl (2018) in effect highlight this legitimation function in their positive reference to earlier work in international business that conceptualizes culture as an ecological system of symbolic memes. Tung and Stahl (2018) spotlight the conceptualization of Weeks and Galunic (2003) who use "memes" as an "umbrella term" to label "cultural modes of thought: values, beliefs, assumptions, know-how, and so-on" in studying organizational culture. "[C]ulture results from the expression of memes, their enactment in patterns of behavior and language and so forth" (Tung and Stahl, 2018, 1181, quoting Weeks and Galunic, 2003, 1324).

In the Weeks and Galunic (2003) framework, a culture evidently consists of an ecology of memes, which this study suggests are cultural ingroup symbolic value ideals and ethical norms. An actor as an organizational stakeholder manipulates these memes in responding to stimuli from the environment in the form social interaction. In sum, culture is identifiable as a behavior pattern within a social environment of competition, cooperation and conflict. Alternatively, it is a means of organizational direction and control in this dynamic context. Leadership's effort at direction and control via these symbolic appeal channels may be more or less effective, i.e. normative habitual, utilitarian and coercive means of control are also available. "[…] [T]he economic paradigm, positing only extrinsic incentives or utilitarian preferences as engines of exchange transactions in the market (and even beyond), is to be substituted by an alternative that also incorporates intrinsic motivation, including morality alongside material utility (Etzioni, 1990)" (Zafirovski, 1999, 331). Different organizational components/constituencies may be subject to different control formulae combinations of control means, and they may be subject to different symbolic content appeals.

Tung and Stahl approvingly highlight scholarly work that incorporates the motivational component of culture in terms of mobilizing the human resources within an organization. They reference the "Global Leadership and Organizational Behavior Effectiveness Research Program" (GLOBE) as a refinement and development of the cultural dimensions approach in Hofstede. GLOBE's elaboration includes two tracks: 1) surveying responders to categorize observable behavior patterns, and 2) surveying responders as to "aspirational values," i.e. what "should be" (2018, 1171).

Leaving aside the atomistic, reification fallacy pitfalls arising from a focus on individual survey responders in analyzing organizational culture, the focus on mobilization is necessary. Culture is a behavior pattern that an individual or group manifests in an organization with an authority control system in place. An organizational culture, broadly construed, exists if control includes effective symbolic appeals to shared self-identity. This symbol manipulation includes romanticized (i.e. positively stereotyped) ingroup identity symbols to mobilize these resources to meet a perceived challenge to the group. The organizational ingroup members cognitively and affectively share this self-identification with the organization and its symbolic representation to varying degrees. If the modal ingroup member self-identifies at a primary intensity level with the organizational ingroup, then the organization's management has the potential to display leadership charisma. Charismatic leadership is conceptualized as part of "transformational leadership," in contrast to transactional leadership, i.e. utilitarian control (Northouse, 2013, 185-217).

Carl Jung highlighted the importance of "collective unconscious" and "archetypes" (Mohanty, 2016, 341). "Jung proposed that there are spiritual and ethical values that manifest themselves as drives" (Pietikainen, 2001, 47). This paper adopts this conceptualization of values being collective drives. I.e. nationalist motivations are collective strategic affective fixations on the influence itself of the cultural organizational ingroup in the external environment. The importance of culture manifesting itself as a collective predisposition shared by individuals within it is a core theme of Carl Jung's work to conceptualize nationalism including in the economic realm.

> *"Perhaps no one in the last 100 years has been more influential to Western culture* [*sic*] *than Carl Jung. From his theories of personality type ("introversion" and "extroversion") that led to the MBTI* [Myers-Briggs Type Indicator introspective self-report test of perception], *to his concepts of the "collective unconscious," "archetypes," and "synchronicity," one could make a compelling argument that Jung's influence over the last 100 years is without a contemporary equal. An untold number of therapists and researchers have built their entire practices, and careers, on his concepts and frameworks. And it is Jung's concept of the "shadow" that is critical for understanding how normally positive traits (e.g., organized and efficient) can become negative (e.g., rigid and inflexible) under stress."*

> *"The "shadow" is Jung's concept of the dark, unconscious aspect that resides within each of us. <u>Jung believed that in addition to an individual's shadow, there is also a collective unconscious that is essentially the repository or unconscious DNA of human history, varying by culture</u>. Although he was convinced that the collective shadow had an enormous impact on human behavior in the present, our focus will be to further refine his notion of the "personal shadow" by looking specifically at leader behaviors under stress, and how normally positive characteristics and traits can and do become dysfunctional or outright destructive"* [emphasis added] (Sparks and Repede, 2016, 27-28).

In an MNE with multiple constituent national cultural subgroups, attempts at transformational leadership employing charismatic appeals can be perilous. National subgroups are more prone to perceive danger from a CEO whom some see as too closely associated with one of these national ingroups. Hostile national subgroup reactions to a CEO misstep appearing to favor one national subgroup can lead to resistance, obstruction and subversion. The CEO leadership consequently becomes dysfunctional (see Carlos Ghosn

case below in the results and discussion section). Jung's so-called shadow may be conceptualized as the predisposition to form and mobilize around national ingroups and collectively to engage in stereotyping, even leading to violence, when aroused. Evidence of transformational leadership is also evidence of strongly shared ingroup self-identity so that organizational mobilization around symbols, including national memes, is effective.

Culture manifests itself as a significant organizational independent causal factor particularly when the organization confronts a crisis challenge, i.e. intense collective stress. Culture is a significant variable in part to the extent to which an intense, heretofore latent shared self-perception, typically non-salient, of membership in a shared fate community is evoked. Cottam and Gallucci conceptualize this ingroup shared primary intensity self-identification as a means of organizational regime control, describing it as normative active control (1978, 15-16). It consists of mobilizational appeals to this shared ingroup identity via manipulation of symbols rooted in romanticized self and other stereotypes/archetypes. It is an elaboration upon Amitai Etzioni's conceptualization of normative habitual control, along with utilitarian and coercive control in complex organizations. Nation-states, as opposed to non-nation-states like multiethnic states or multinational states, have a mobilizational and therefore power capability advantage in this regard. They also are as a collective entity more prone to stereotype policy targets in terms of the prevailing view in the government as the basis on which crisis decision making occurs. As previously noted, this predisposition lends an organizational resource mobilizational advantage for the nationalistic ingroup, while also leading to policy dysfunction due to the propensity to stereotype (Cottam and Cottam, 2001, 3-4).

This study incorporates rhetorical behavior in order to infer the symbol set that organizational authorities manipulate in the attempt to mobilize their human resources. What Tung and Stahl (2018, 1171) refer to as the "aspirational values" which leadership may attempt to manipulate is normative active control. The dynamics of culture may be conceptualized in terms of its utilization to achieve objectives in order to understand what culture is and its significance. Culture as an ingroup/outgroup delineator may be intense but not always salient until the ingroup's influence capability comes under perceived challenge. It can thus be differentiated from among all of the individual, internal and external factors that determine organizational behavior. "Consistent with Etzioni (1964), a[n] [organizational] stakeholder is considered to have power to the extent to which it has or can gain access to certain means to impose its will on the relationship. Those means might be coercive (based on physical force, violence, or restraint), utilitarian (based on material or financial resources), *or normative (based on symbolic resources)*" [emphasis added] (Siltaoja and Lähdesmäki, 2015, 839, referencing Mitchell et al. 1997, 865).

Marin, Mitchell and Lee (2015) also reference the application by Mitchell (1997) of the typology of organizational control capability by Etzioni (1964), elaborating on "normative power, based on symbolic resources (e.g., that can offer/deliver fame, or threaten/deliver shame)" (Marin, Mitchell and Lee, 2015, 274). They note that shared ethnic ties in an "ethnic business," i.e. a business dominated by minority ingroup members within an ethnic majority society, may be an organizational management resource. Management may draw upon these ties, particularly "[i]n circumstances in which environmental conditions are hard and disadvantageous" (Ibid., 276). The capacity for normative mobilizational power capability of the organization's resources will correspond to the intensity with which a culture is shared among organizational constituencies. The salience of this ingroup internal contextual intensity depends on the dynamic external context of this cultural ingroup, including the organization's structural and operational characteristics and policies.

The centrality of follower/public values and aspirations, including collective self-identity expressions such as displayed in nationalistic behavior, is reflected in "new-genre leadership theories":

> "Entrepreneurship continues to be benefited from leadership research by focusing on influence and process which have taken a new turn with what has been called new-genre leadership theories

(Bryman, 1992) that <u>put the leader behind the cart and the followers in the front and thereby the centrality of the followers is superimposed in the process of leading. The new leadership models emphasize symbolic leader behavior, visionary, inspirational messages, emotional feelings, ideological and ethical concerns,</u> individualized attention, intellectual stimulation (Avolio et al., 2009), self-direction, non-hierarchical relationships (Antonakis et al., 2003), distributed leadership, shared relations and multiple exchanges" [emphasis added] (Mathews, 2017, 33).

Normative active state leadership manifests itself in effective influence and control over nationalistic publics by crisis appeals to national defense, sovereignty, dignity and even grandeur aspirations (Cottam and Gallucci, 1978, 16). The importance of affect in the processes of organizational leadership and mobilization reflects Carl Jung's argument "that feeling and not reason is usually the most important factor in matters of good and evil: if feeling does not aid reason, the latter is often powerless" (Hultman, 2017, 20). Hultman references Williams (1979) in stating "that values bring together emotions and concept. People do not stop with a factual analysis of situations, but are constantly evaluating things as good or bad, vices or virtues, dignified or irreverent" (Ibid.).

Culture as a set of symbols manifests itself within dynamic interaction between collectivities and groups under an authority/management that mobilizes and governs the ingroup. To mobilize these resources the authority will rely upon manipulation of romanticized positive ingroup self-identity symbols. They are stereotypes of self vis-à-vis other. This legitimation function in the organizational policy making process is important in regard to the issue of culture and organization. When economic nationalism is evident, then this legitimation function is notably salient. The legitimation of a headquartered MNE policy can be in part through association of its role in developing the power capacities of the nation. The nationally headquartered MNE may at times ultimately serve the strategic objectives of a much more vast, complex organization, i.e. the nation-state. The latter organization has strong affective symbolic associations for the modal citizen in that its management is perceived as representing the nation. In other organizations, the ideals or stereotypes or archetypes are typically expressed in a mission statement, or organizational values statement, similar to a national constitution's preamble.

Attempts at legitimation of the policy process outputs rhetorically manipulate these romantic cultural moral and ethical ideals. Typically, they might not be so important on a day-to-day level if utilitarian control is the main regime relationship between the authorities and the subordinates. When organizational allegiance becomes a prominent issue, then these romantic ideals, including their rhetorical expression as ingroup ethical norms, will be salient. Price notes that "Weeks and Galunic's most important contribution might be to have identified the firm as a memetic ecology rather than, necessarily, a single entity" (2012, 339). Direction and control must be evident for an organization, by definition, to exist as an entity. If a comparatively strong organizational culture exists, then it may not necessarily always be salient. Normative active symbol manipulation will be more effective as a means of organizational control and direction in times of crisis, ceteris paribus. Organizational leaders will use these means if they are available to achieve objectives in this competitive, cooperative and conflictual dynamic environment. The analyst will see culture at work, and it will be particularly strong in vast, complex organizations that Cottam and Cottam typologize as nation-states (2001).

The legitimation function in the policy making process, like all elements in the policy making process, is inseparable from the dynamics of organizational management and leadership. Analyst articulate the component themes of the policy making process using different vocabularies, e.g. "agenda setting, policy formulation, decision making, implementation, evaluation" (De Marchi, Lucertini and Tsoukiàs, 2016, 20). This process encompasses the dynamics of organizational control and direction including legitimation which relevant stakeholders grant, habitually or otherwise, to the leadership's policies. It is organizational existence. A significant organizational ethical culture exists among the stakeholders to the extent that

"[a]ttributions of both blame and credit thus occur within broader considerations of legitimacy, including a substantive moral dimension as to whether a decision is perceived to be right or wrong per se, what Schmidt (2013) called ''throughput'' legitimacy. This exists as a procedural dimension concerning whether a decision is perceived to have been made in accordance with agreed principles and protocols (Scharpf 1999)" (Leong and Howlett, 2017, 601).

Without evidence of collective control and direction, an organization does not exist. One measure of this control and direction is successful legitimation, i.e. organizational ingroup normative meme recombination to an extent placating relevant stakeholders. It is efficacious in "exercising influence over the minds and actions" of organizational stakeholders (Cottam and Gallucci, 1978, 4). Ethics consists of the application of moral principles to making decisions to address challenges and they are part of legitimation. McKay notes that while "professional ethics" aim to ensure government action in the "public interest," "they are inextricably linked with the concepts of legitimacy and power" in public policy making (2010, 428).

Culture, Nationalism and Integration

European authorities functionally encourage integrative, transnational trends in organizational meme recombination to ensue via incorporation at the European Union level. Social identity theory provides a framework for these political evolutionary dynamics (Cottam and Cottam, 2001, 87-93. These dynamics involve incentivizing substantive social mobility and creativity to avoid intra-EU national zero-sum social competition, i.e. nationalist conflict (DeDominicis, 2020). Social mobility associates with assimilation when a negative comparison of ingroup self with outgroup other results in successful exploitation of opportunities to join the positively perceived outgroup. E.g. an ambitious, talented young east European from a poor family takes advantage of EU policies and opportunities to subjectively become so-called European as part of a promising career. Social creativity associates with integration. I.e. social creativity exploits societal opportunities to re-evaluate the ingroup positively according to different criteria in response to a negative initial comparison of national self with other. E.g. a Polish citizen may be disappointed in how Poland compares to Germany in economic development. But EU membership positively differentiates Poland's national status as being so-called European in comparison with Russia. It occurs through re-estimation of the ingroup according to different, substantive comparison criteria and objects. Using similar, parallel concepts, Tung and Stahl note that

"in the four modes of acculturation […] when a person has to interact with culturally dissimilar people, the individual has to choose whether to separate, integrate, assimilate, or be marginalized. […] [E]mployees decide to join or leave organizations they are attracted to or disillusioned with; similarly, people choose to immigrate/emigrate to/from countries that exhibit societal-cultural values which they cherish/disagree with. […] [A] <u>subject's response is triggered by the external stimuli […] In the case of acculturation, the external stimuli would be the presence of a majority culture; in the case of organizational turnover/immigration/emigration, the external stimuli could be the presence/enactment of policies or legislations deemed (un)favorable and/or (un)acceptable by the employee/immigrant or emigrant, respectively"</u> [emphasis added] (2018, 1182).

Cottam and Cottam's political psychology of nationalism offers a theoretical framework for predicting tendencies towards acculturation, assimilation, integration and marginalization. Note that at the group level, another response may be to engage in social competition (2001, 90-93). Social competition refers to the relationship between the ingroup vs. outgroup coming to be perceived as dangerous and therefore zero-sum: the outgroup's gain is perceived as the ingroup's loss. National subgroups within an organization engaged in spiraling social competition with each other disrupt the organization, e.g. breaking up multinational states like the USSR and Yugoslavia. On the micro collective level of MNEs, disastrous constituent organizational national subgroup social competition would lead to organizational dysfunction and management failure.

Cottam and Cottam conceptualize the aggregation relationship between these micro-scale elements and the behavioral patterns of these macro-level units. The latter consist of states into which these micro-level units acculturate. Seeking social mobility through acquiring utilitarian benefits if perceived as possible can be a powerful incentive to assimilate. A concurrent incentive is the prevailing perception that power disparities make social competition strategies to achieve minority national secession and self-determination impossible. E.g. Arabic musical cultural influence is strong in Israeli "Mizrahi" pop music. These influences have grown with the rise of the Sephardic Jewish community along with the passing of the Ashkenazi founders of Israel. The Sephardic community is the at the core of right-wing Jewish populist nationalist constituency support for the Benjamin Netanyahu's Likud party and his Greater Israel policies. "[T]he pop star [Ms. Nasrin Kadry] sang at Israel's official Independence Day celebration, an unusual gig for an Arab artist. The invitation came from the Likud culture minister, Miri Regev, a sharp-tongued hard-liner whose family roots are in North Africa, like those of many Likud voters. Ms. Regev has said that Arabic music "has something to offer Israeli culture"" (Friedman, M., 2020, para. 9). Highly educated, multilingual, mobile, remunerated MNE human resources have incentives to assimilate into the MNE's global organizational culture if it has more or less successfully created one.

As with genetic codes in living organisms, memes guide organizational "growth, development and functioning" (Tung and Stahl, 2018, 1182). They are the institutionalized utilitarian mobility and normative symbol ecology with which organizational authorities must communicate, manage and mobilize the collective. This symbol set establishes dynamic, more or less diffuse parameters for the policy making process. This symbol array constituting the organization itself continues to evolve or adapt as it interacts with stimuli from its competitive, cooperative and conflictual environment. It may also fail, disaggregate and dissolve. Tung and Stahl approve of the culture as meme ecology conceptualization because of its emphasis on attention to this process (Ibid). European integration policy attempts to shape organizational meme evolution amongst European constituencies to promote European identity. It does so by providing substantive individual social mobility as well as national identity social creativity opportunities. Memes are employed at different behavioral levels but they are utilized dynamically to pursue organizational goals by authorities seeking to legitimate them. This approach does not reify culture, but rather evaluates its intensity and salience as a group factor affecting collective behavior in the midst of intergroup cooperation and conflict. Culture as a dynamic, evolving process is more evident.

Tung and Stahl respond approvingly to Brannen's emphasis on understanding "language" within an interactive social context as a branch of semiotics, i.e. the study of the content of symbols and signs (2018, 1183, quoting Brannen, 2004, 595). Manipulation of national, romanticized normative symbolic ideals of self vs. other is most intense and influential in this dynamic collective social interaction of competition, conflict and cooperation. Successful globalization strategies provide comprehensible concrete benefits in the form of opportunities for individual social mobility and collective ingroup social creativity. Thereby they avoid social competition among constituent national ingroups. Effectiveness in defusing national ingroup social competition potential is external context dependent. Brannen's case study focus was the transference business success at the time of Disneyland Tokyo in comparison with Disneyland Paris. Labor disputes and other obstacles emerged more readily in the latter despite the greater "foreignness" of Japanese culture vis-a-vis the US:

> *"There is also quantitative support for this difference in degree of foreignness in Geert Hofstede's national cultural classification indexes: the United States measures 91 on the individualism index, compared to 71 for France and 46 for Japan—the latter a strong collectivist result (Hofstede, 1980: 158). In addition, the United States and France have closer scores on the masculinity index (62 and 43, respectively, versus 93 for Japan). However, despite such cultural proximity and host country experience in France, in the final analysis, Disney was far less successful there than in Japan. Ironically, Mickey loses face in Paris, rather than in Tokyo, where face-saving is a more common cultural issue"* [*sic*] (Brannen, 2004, 594).

Tung and Stahl highlight research findings that culture is a more powerful context-driven factor as a value/motivation determining outcomes "in culturally tighter, as opposed to looser, countries because people would experience more social pressure to act in ways that are consistent with societal values" (2018, 1178, referencing Gelfand, Nishiie and Raver, 2006). The degree of intensity of shared culture is itself a contextual, albeit internal, factor for culture to display itself as an issue in international business. The intensity of shared culture manifests itself via constituent national constituency and national subgroup motivation for collective ingroup self-assertion. Culture, whether tight or loose, emerges as a cause when interaction stimulates leadership to attempt to mobilize resources at the group, organizational, or country/state level. Amidst the Covid-19 pandemic crisis, Gelfand herself notes that context changes behavior to produce collectivist responses in "loose" culture societies, i.e. societies that idealize individualism, like the US:

> "In all of the uncertainty, we need to remember that the trajectory of the virus has as much to do with the nature of the coronavirus as it does with culture. _Our loose cultural programming needs to do a big switch in the days to come. Across history, tightening in the face of threat helps populations to survive. Our own remarkable unity during World War II shows that we've been able to shift from loose to tight. Now we need to do it again with strong leadership from the top._ By temporarily sacrificing liberty for stricter rules, we'll be able to limit the damage from this disease together" [emphasis added] (Gelfand, 2020, para. 11).

Gelfand is commenting upon the relative policy effectiveness of culturally "tight" Singapore and Hong Kong in containing the spread of the virus. Nationalism is by its nature collectivistic in behavior. It may shift in its association with liberal, individualistic or authoritarian, collectivist norms and ideologies. These norms, ideologies and worldviews are products of particular idiosyncratic national societal contexts and histories. Nationalism as a collectivist value to defend the nation significantly defined by culture will tend to supersede individualism in the policy making process during times of perceived national community crisis. In the US case, leadership legitimation of these crisis-era policy outputs will continue to utilize signs/semiotics in the form of idealized archetypical/stereotypical symbols of individualism. Leadership manipulates these symbols to appeal to relevant stakeholders, such as voters. E.g. an egregious divergence between the semiotics of liberalism and actual authoritarian collectivist policy behavior was the US government's internment of Japanese Americans during World War II. Other historical cases include post-Reconstruction multigenerational institutionalization of Jim Crow apartheid under authoritarian, coercive de facto one-party regimes in the American South (Levitsky and Ziblatt, 2018, 124, 143, 204). Postwar civil rights laws enfranchising the marginalized precipitated reactionary political mobilization against consensual norms, e.g. Trumpism (Ibid., 204, 217, 220).

DATA AND METHODOLOGY

This study's focus is on a pattern of behavior which shows itself explicitly in business economic contextual relationships as well as in government policy, i.e. economic nationalism. Culture emerges as an ingroup loyalty focus. I.e. it is a behavior pattern-centered political allegiance to a community whose territorial boundaries are coterminous with a collectively perceived, shared national culture. A community's culture is national if it has or collectively perceives an opportunity to achieve a sovereign nation-state homeland. The economic nationalist is concerned about economic nationalism, i.e. he or she perceives a challenge to the political influence of the national community via trade and business. MNEs can be vehicles and mediums in which this national community cooperation and conflict can occur.

This conceptualization of collective ingroup behavior implies reliance on the public record to observe this real-world interaction within case studies. Tung and Stahl call for more qualitative methodological studies of culture in international business (2018, 1183). A case study is a qualitative methodological approach to social scientific research (Creswell and Poth, 2018). This perspective on culture portrays it as manifesting

itself in instances of dynamic competitive, cooperative and conflictual idiosyncratic social contextual national intergroup interaction. Analyzing intra-organizational communication involving symbols implies understanding the emotive, affective content of national symbols and their manipulation. The turbulent example of Carlos Ghosn's departure from leadership of the Renault-Nissan-Mitsubishi alliance illustrates the emotive potential of national component ingroup self-identity in an MNE.

RESULTS AND DISCUSSION

Conflict involves "misconstrued meanings" (Tung and Stahl, 2018, 1183, quoting Brannen, 2004, 597). This misinterpretation may be conceptualized as the misapprehension of motives and capabilities of a target that implies challenging threat or opportunity to the perceiver/initiator. Misperception of state foreign policy motivation happens repeatedly in international relations. E.g. the basis of London's appeasement strategy towards 1939 Hitler's Germany was misperception of the motivation for the belligerency in Berlin's foreign policy behavior. London's prevailing view saw it as due to the primary value motivation drive of national dignity against perceived national subjugation and humiliation since the 1919 Treaty of Versailles (Trubowitz and Harris, 2015, 306). In fact, the primary German national government foreign policy value motivation was the German collective aspiration to global hegemony under Hitler's leadership. The politically prevailing view in the Berlin of Hitler's Germany misperceived opportunity to exploit the stereotyped, supposed political degeneracy of Germany's adversaries. Nazi Germany strove to exploit this misperceived degeneracy and the consequent opportunity for achieving German global hegemony through its superior collective will and determination (Cottam and Cottam, 2001, 258-59).

In sum, appeasement inadvertently confirmed this prevailing view in Berlin espoused by Hitler, thereby further strengthening Hitler politically domestically and making war more probable, not less. Nationalists are more prone to perceive threats and opportunities in the external environment and to stereotype policy targets as the source of these threats and opportunities (Cottam and Cottam, 2001). As Carlos Ghosn, the former CEO and chairman of the Renault-Nissan-Mitsubishi alliance learned with is arrest in late 2018, they are also more prone to respond viscerally.

Economic Nationalism in Non-State Actors

The so-called context referenced in Tung and Stahl (2018) includes the dynamic situational circumstances that trigger intense but heretofore latent cultural community allegiance predisposition. This context includes perception of intense challenge from the external environment to the actor, whether individual, group, organization or nation-state. This perception of intense political challenge to the socio-cultural self-identity ingroup of the actor is what causes so-called culture as a group loyalty behavioral focus to become salient. This salience manifests itself in different ways. E.g. one display would be the self-identity community symbol manipulation by the organizational authorities to mobilize human resources including willingness or at least acquiescence to sacrifice. This sacrifice may range in intensity from as low as devoting mental resources to the challenge, to working longer hours, i.e. sacrificing leisure time, to paying substantially more taxes, to risking and giving one's life in the case of war. These myriad contextual factors, as noted above, also include the intensity of shared collective perceptions of common ingroup membership in terms of organizational group identity. If an organizational culture is strong, i.e. by definition employee and staff morale are high, then the organization's leadership will enjoy greater potential management and leadership effectiveness.

An MNE is almost invariably headquartered in one country. Nissan and Renault are MNEs, but clearly the economic nationalism of their respective headquarter states have impacted them strongly. It contributed to Japan's arrest and indictment of Renault-Nissan and Mistubshi alliance chairman Carlos Ghosn for embezzlement:

> *"The split between top executives*[:] *Mr Saikawa's* [Hiroto Saikawa, in 2018 CEO of Nissan] *laceration of Mr Ghosn's legacy spoke volumes of the soured relations. Outrage and violation were among Mr Saikawa's words. "The problem of governance was significant," he said. One crucial issue was the lack of trust between Mr Saikawa and Mr Ghosn over the latter's relationship with Emmanuel Macron and the French president's machinations to engineer a merger between Renault and Nissan in which the French company would have the upper hand."*

> *"Mr Ghosn's arrest prompted an immediate summit between the Japanese and French finance ministers, but the crisis has its roots in an extraordinary show of brinkmanship and economic nationalism three years ago by Mr Macron as economy minister. He tried to increase the French state's 15 per cent stake in Renault and to use a new law to double the government's voting rights. That would have given it control of Renault and therefore of Nissan because of the cross-shareholdings in which Renault owns 43 per cent of Nissan with voting rights and Nissan own*[s] *15 per cent of Renault with no voting rights. Mr Macron's ambition was to divert Nissan investment in Europe to France and Renault's underutilised plants. At present, much of this investment goes to Nissan's Sunderland factory, the biggest in the UK, and its European design and R&D centres in London and Bedfordshire. Nissan's counter-attack back in 2015 was led by Mr Saikawa and it became a stand-off in which Mr Saikawa eventually faced down Mr Macron"* [*sic*] (Lea, 2018, para. 6-7).

The London *Times* report above begins noting that Ghosn was charged with fraud by Japanese prosecutors. The evident impetus behind the accusations include critical contextual factors triggering economic nationalism. Ghosn in December 2019 subsequently surreptitiously fled Japan, claiming he hid in an acoustic equipment case, to his Lebanese Maronite Catholic diaspora homeland to avoid a trial. He asserted the trial would not be fair; "[Japanese] [p]rosecutors win 99 percent of their cases" (Dooley and Inoue, 2020, para. 16).

Carlos Ghosn, who holds Brazilian, French and Lebanese passports, was born in Brazil into a Lebanese Maronite Catholic family, part of this entrepreneurial diaspora. "The Maronites who emigrated have maintained their loyalty to Lebanon and to their family members who stayed in the old country. They send money. They pay to construct a house in their ancestral village and visit it from time to time. *The Lebanese Maronites are also loyal to France, which is the result of a long, nearly thousand-year-old history that goes back to the crusades*" [emphasis added] (Ghosn and Ries, 2005, 1-2). The title page of Ghosn's memoir notes that it was first published in France in 2003 and was translated from French into English for the US edition. "The prevalent scholarship on the French colonial period in Lebanon, known as the Mandate (1920-43), stresses Maronite loyalty to the French, and the clergy's conformity to French economic and political plans" (Abisaab, 2014, 293). CEO Ghosn may not have intended to act as a de facto agent of French nationalism. But the behavior of regulators in the nationalistic Japanese polity indicates that they suspected that his motivations were indeed so. Cottam and Cottam note that nationalistic ingroups are prone to perceive hidden conspiratorial agendas among other threatening national ingroups. "[T]he tendency to view crisis situations stereotypically is an integral feature of nationalistic behavior" (2001, 111).

In 2009, Ghosn who was then also chairman of the European Automobile Manufacturers Association, perfunctorily dismissed economic nationalism in responding to journalist's interview question:

> *"Q. How big a danger is economic nationalism, with some countries supporting their industries at the cost of Europe over all?"*
> *"A. I don't think there is a serious risk of nationalism"* (Schwartz, 2009, para. 6-7).

In fiscal year 2012-13, Ghosn was Japan's highest-paid CEO ($10.1 million), following little change from 2010, placing Ghosn below the top 200 paid US CEOs and the top 20 Canadian CEOs (Salazar and

Raggiunti, 2016, 3). After Ghosn's arrest, the Nissan board of directors soon forced Saikawa and other top Nissan senior executives to resign over remuneration issues including exit packages. ""In the past, we [Nissan] didn't have a clear policy on compensation at the end of service," said Keiko Ihara, the director in charge of compensation issues" (McLain, 2020, para. 9). These subsequent events belie public claims that alleged inappropriate use of company expense accounts alone provoked the fierce moves by Japanese prosecutors against Ghosn.

This impact of economic nationalism on MNEs is external but still contextual, i.e. pressure from their respective governments of their nation-states where their headquarters are incorporated. This impact is also contextual but internal, i.e. from the strong ingroup national identity allegiance of significant members of their respective managements and employees. Culture, i.e. ingroup membership, became an intense, salient factor when national organizational ownership and control became an issue, intentionally or unintentionally. I.e. intra-organizational national ingroup social competition spiraled upwards in intensity, provoking economic nationalist behavior both internally and externally. MNEs as means or vehicles for national trade, investment and development opportunities can function as sources of government international diplomatic bargaining leverage towards target states. They provide this leverage to the extent MNEs are perceived by a target government as potentially under the sway of the initiator government, e.g. where an MNE is headquartered (Cottam and Gallucci, 1978, 41). Each MNE is different, but unusual is the MNE that willingly invites the wrath of the government where it is incorporated. The governments of nation-states which have legitimacy among public opinion are comparatively more likely to reflect the nationalist predispositions of their publics. Their publics may include a relatively intense if not always salient predilection towards economic nationalism.

Shaping the global IB context through formal interstate diplomatic negotiations by its nature assumes nationalism to be a legitimate, albeit volatile, motivation for international economic strategy and tactics. Different constituencies within national publics evaluate politically their respective state leaders often by their perceived effectiveness in defending the national interest, however subjectively defined. E.g. observers expect that the US government uses its weighted voting primacy in the International Monetary Fund to promote its policy aims. In international organizations without weighted voting, the US uses its diplomatic bargaining leverage to sway the votes of other states parties. E.g. "[A]n American-backed candidate on Wednesday beat out China's nominee to lead the United Nations organization charged with protecting intellectual property [the World Intellectual Property Organization], a vote that followed weeks of vicious diplomatic sniping between Washington and Beijing" (Bruce, 2020, para. 2).

Peter Navarro, trade adviser to US President Trump, "raised the specter of growing Chinese influence across the United Nations organization. Control of its intellectual property office would have given China power over five of the U.N.'s 15 specialized agencies, Mr. Navarro noted. The four already led by China include the Food and Agriculture Organization, the International Civil Aviation Organization, the Industrial Development Organization and the International Telecommunications Union. No other country was in charge of more than one, he said" (Bruce, 2020, para. 17-18). The nationality of an individual CEO of a UN organization does not prove that that national government controls the international organization. Nationalists and nation-states collectively, including US, China, France and Japan, are more prone to perceive external national influence competition in terms of stereotyped threats and opportunities (Cottam and Cottam, 2001, 3-4). Ghosn may not have intended to be an agent of French economic nationalism in the Renault-Nissan-Mitsubishi case but influential elements among the Japanese authorities perceived him as such. A similar tendency exhibits itself in the international competition for the leadership over purportedly neutral technical UN international organizations.

Lee and Lee assert, "[p]erhaps the oscillation between economic nationalism and global openness is not a phenomenon unique to Korea. It could quite commonly surface in countries with strong traditional values driven and led by a strong state that is in a transitional stage and planning a shift toward a more mature

economy" (2015, 147). The national Brexit and Trump macropolitical phenomena, and the micro-level case of Renault-Nissan, illustrate that nationalism still shapes economic and business behavior in the most mature economies. "For all the talk of the "end of history," there is as yet little to indicate that economic nationalism and trade and investment protectionism are on the wane" (Jakobsen and Jakobsen, 2011, 72).Values of collectivities regarding culture include group member shared self-identity political self-assertion, i.e. nationalism. The patterns of policy response to these stimuli activating a collective national ingroup reaction constitute attitudes. Attitudes that frame perception create worldviews and beliefs. The articulation of these worldviews may constitute principles and ideologies. The latter may or may not represent the actual values driving an actor but rather serve as self-justificatory rhetorical symbolic tools to affect other, target actors.

These response patterns can change along with the context as groups strive to satisfy needs. I.e. attitudes change, e.g. South Koreans have developed more "assertive" versus "allegiant" citizenship norms as they have become more prosperous as part of a so-called developed society (Welzel and Dalton, 2017). South Koreans collectively remain nationalistic; their reference point for responding to stimuli remains the shared self-identity primary terminal ingroup, i.e. Korea, to protect and promote its influence. Economic nationalism refers to a behavioral tendency to evaluate and formulate economic policy in terms of defending and promoting the influence of the sovereign state of a national ingroup/nation-state.

A focus on culture implies a concentration on how culture shapes the organization's policy making process. Culture affects individual decision makers in terms of their role in the policy making process. Culture manifests in terms of implementation and legitimation effectiveness within the organization, e.g. organizational morale, i.e. an organizational-level factor of analysis. It also shapes organizational behavior via the policy making dynamics towards other organizations, including governments and competitors. Culture affects organizational behavior in the form of official and unofficial policy. A perspective on culture as an aggregation of individual personality traits risks the ecological fallacy in terms of attempting to explain international business. Culture here is conceptualized as a value motivation in part because economic profit is also a value motivation. Tung and Stahl themselves note that culture's practical effect in terms of the subdomains of international business appears to be "weak in practical terms" (2018, 117). It is weak because business' overwhelmingly typical value motivation is profit gain. In certain contexts, intentional or otherwise, culture as a value motivation emerges and can supersede this material profit organizational motivation. "EN [economic nationalism] concerns the preservation of individual economic well-being through safeguarding national economic autonomy and security" (Lee, Lee and Lee, 2014, 1152).

Behaviorally, economic nationalists will sacrifice immediate material profit to defend national sovereignty and security in a crisis. I.e. the longer-term well-being and identity of the nation is perceived as under challenge. Observers become concerned with culture as a factor that shapes effectiveness in competition to generate profit. When culture, and specifically culture conflict, becomes a perceived behavioral obstacle to organizational achievement of profit goals, then observers are particularly interested in it. Culture conflict emerges between individuals, units, organizations and states under particular contextual factors. The case of Carlos Ghosn implies that it is not weak in practical terms in this case. It illustrates culture's impact in part because of the organizational setbacks Nissan and Renault now face as corporate actors that must maximize profits and market share in a highly competitive global industry. "The pandemic has hit the allied auto makers at a time when they were already struggling. The arrest in Japan of former alliance leader Carlos Ghosn in November 2018 set off more than a year of management turmoil, and Nissan had seen sales fall sharply in the U.S., its most important market" (McLain and Kostov, 2020, para. 6). As of this writing, the French and Japanese authorities evidently have concluded that national economic interests require that the Renault-Nissan partnership continue. The pandemic poses new challenges for overcoming the legacy of this disruptive social competition.

National Cultural Comparisons

Trompenaars and Hampden-Turner begin by noting that their text "is about cultural differences and how they affect the process of doing business and managing" (2012, 1). They emphasize that it "is not about how to understand the people of different nationalities" (2012, 1-2). The coauthors underscore in their discussion in "culture directs our actions" that culture forms the roots of action, yet it is beneath awareness in the sense that actors tend not to articulate it (2012, 32). The coauthors articulate cultural differences in terms of facilitating intra-organizational cultural intergroup communication. Conceptualization of difference is necessary to be able to incorporate cultural diversity as managers. Until cultural differences are formulated, they remain uncontrollable, unmanageable factors, serving as triggers for intraorganizational polarization and consequent dysfunctionality.

The coauthors entitle a chapter subheading, "Culture is the Way in Which People Solve Problems" referencing Hofstede (1980): "*Culture is the way in which a group of people solves problems and reconciles dilemmas*" [emphasis in original] (2012, 8). I.e. culture consists of a national community's system of moral and ethical norms, implicit and explicit, represented and enforced by the authorities, e.g. the state in the form of government. Community members are prone to respond emotively if the existence of this system is perceived as under intense threat or as confronting a marvelous opportunity to expand its influence. The problems to which community members apply moral and ethical norm systems reflect the drives to satisfy needs. Safety, security, love, self-esteem and self-actualization are Maslowian needs that actors seek to realize in a social context. These actors' perceived conformity with prevailing cultural norms, i.e. moral and ethical norms, in striving to satisfy their needs significantly affects their ability to do so. The nation is a cultural community with which social actors display a primary, terminal self-identity allegiance. This collectivity has this status because it is the community with the greatest resources, symbolic and material, available for utilization by ingroup members to assuage these needs.

If a national community formally organizes itself as a sovereign actor, then it becomes a nation-state. Trompenaars and Hampden-Turner note that these individual values/needs include values such as "upward mobility," "the more, the better," status and material success. The deeper the norms and values (see figure 1 below), the more challenging they are to identify because the members of the community may only be semi-aware of them and tend not to explicitly examine them (2012, 9-10). They are cognizant that their respective national cultures and resources differ and may be in conflict with each other in the competition for more resources. When the influence of the nation appears to be under challenge, then aggregated internal constituency needs manifest themselves in the collective external/foreign policy value/drive of nationalism.

Theories of cultural differences that are interpretable by leader practitioners are more likely to have a strategic impact on social reality. A theme of Trompenaars and Hampden-Turner is that cultures are mutually comprehensible to a significant degree through their cultural dimensions framework. E.g. American culture idealizes the normative notion that actor social status depends exclusively upon individual performance and achievement. Age, family background, race, religion and other ascriptive factors are supposedly not important and should not be. All national cultural communities including the US have aspects of ascription in their social status dynamics. E.g. a degree from an American university with a famous pedigree provides ascriptive status and entering one often does not depend only upon the individual applicant's academic performance ("End the College," 2019). I.e. American managers can empathize to a significant degree regarding ascription's heightened importance in Europe and Asia.

Asian cultural communities note the importance of individual performance and choice in changing societal status. In Confucian South Korea, the "democratic experience has weakened individuals' attachment to social hierarchy and rule by morality, but group primacy and social harmony remain strongly held principles among the citizens" (Choi and Woo, 2018, 505). Through the application of their model, in conjunction with a willingness to empathize, the Trompenaars and Hampden-Turner theoretical framework facilitates

intercultural communication, making it more feasible. The aim is to avoid "misconstrued meanings" that generate conflict (Tung and Stahl, 2018, 1183, quoting Brannen, 2004, 597). Suspicious misperception may emerge of the ultimate intent of the other being the competitive influence aggrandizement of the other's national ingroup at the expense of the perceiver's national ingroup. Such an outcome is a particularly pathological misconstrued meaning within an MNE.

Trompenaars and Hampden-Turner affirm that common ways of processing information are a necessity for cooperative social interaction, i.e. effective communication, to occur. The existence of mutual expectations is "an absolute condition for meaningful interaction in business and management" (2012, 27). MNE organizational management has to construct institutionally these common ways of processing information in a multicultural setting. Management incentivizes, materially and normatively, multicultural organizational constituents to constitute the organization's system of meanings, i.e. a memetic ecology. Creating an integrative organizational culture is synonymous with generating common beliefs. An indicator of success in promoting an integrative organizational culture is high organizational morale. Avoiding a spiral of intra-organizational national subgroup polarization due to a negative feedback loop of suspicion and misconstrued meanings is necessary if not sufficient to create this morale.

"[B]asic assumptions - implicit" (figure 1 below), i.e. where a national culture is placed on seven cultural orientation dimensions (outlined below), are deep behavioral choice orientation patterns. As an organized community, these "basic assumptions – implicit" are the foundation for creating a system of "norms and values," i.e. culture: "the way in which a group of peoples solves problems and reconciles dilemmas" (Trompenaars and Hampden-Turner, 2012, 8). These norms and values are assumed to be right and wrong ways of behavior, i.e. systems of moral and ethical norms and the emotions that associate with them. In order to discuss and analyze these "basic assumptions - implicit," a theoretical framework is necessary to conceptualize them. Trompenaars and Hampden-Turner aim is to highlight systematically and comparatively the challenges of managing effectively a multicultural, multinational organizational unit. They endeavor to do so in a framework that assists managers to communicate more effectively with staff, i.e. to be aware of different cultural assumptions of what is acceptable and unacceptable behavior. The manager is thus better equipped to communicate with the desired outcome to motivate the staff more effectively. The framework aims to avoid misconstruing meanings that provoke nationalist umbrage and humiliation, leading to MNE national constituency subgroup polarization and organizational dysfunction.

Trompenaars and Hampden-Turner present a theoretical framework that reflects the existence and functioning of psycho-social processes at different levels of analysis of the individual and group as indicated in Figure 1.

Trompenaars and Hampden-Turner present these "basic assumptions - implicit" in a model consisting of seven cultural dimensional continua along which different national cultures can be comparatively placed: 1) "universalism versus particularism," i.e. assumptions regarding the primacy of universal rules vs. personal obligations in social interaction; 2) "individualism versus communitarianism," i.e. assumptions regarding the focus on the desires of the individual vs. the needs of the group; 3) "neutral versus affective," i.e. assumptions regarding the function of emotional display in professional settings; 4) "specific versus diffuse," i.e. assumptions regarding the delimitation of professional vs. personal relationship boundaries; 5) "achievement versus ascription," i.e. assumptions regarding the role of individual achievement vs. social pedigree in determining individual social status; 6) "attitudes with regard to time," i.e. assumptions of sequential vs. synchronic notions of temporality; 7) "attitudes with regard to the environment," i.e. assumptions regarding internal individual vs. external environmental notions of locus of control (Trompenaars and Hampden-Turner, 2012, 10-12). The first five focus on social relationships.

Figure 1: "A Model of Culture"
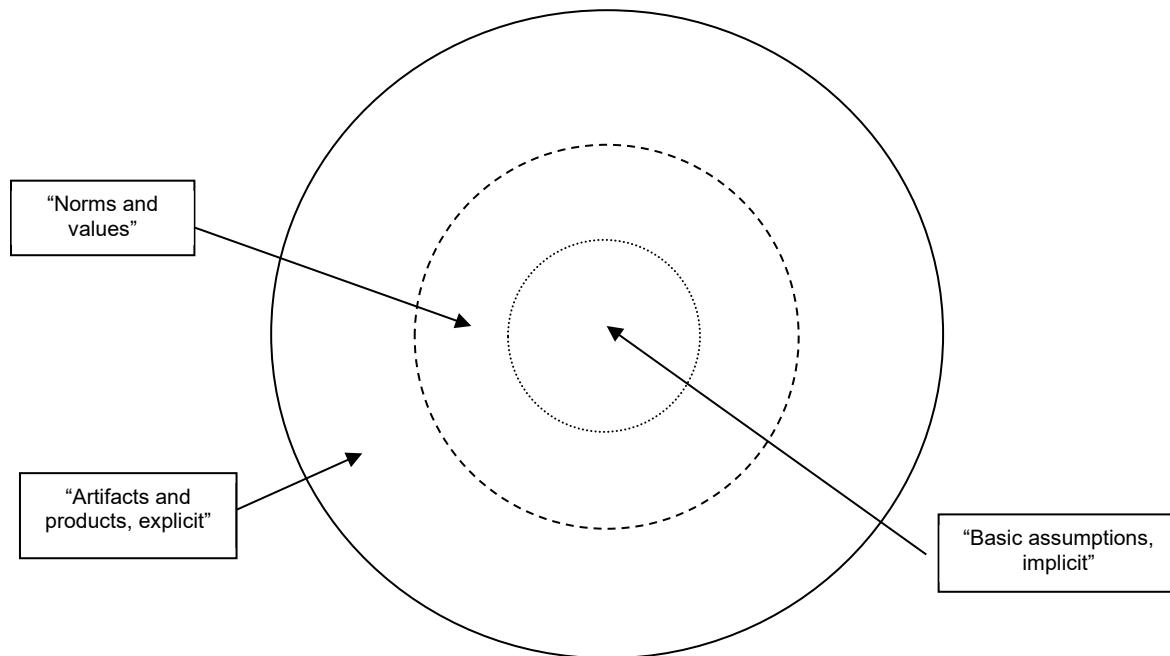
Trompenaars and Hampden-Turner present a framework for conceptualizing culture in a form that permits articulating national cultural differences to facilitate integrating them by an organization's leadership. Cultural differences consist of distinctions in prevailing community behavioral orientations towards other members and to external reality, what they label as "basic assumptions, implicit." Among "norms and values" the former refers to behavioral obligations, and the latter refers to the emotion/affect that associates with them. "Artifacts and products, explicit" refer to the explicit manifestations of culture, including language, behavioral mannerisms, and aesthetics. Their use of the term "value" overlaps the definition utilized in this study, i.e. values as needs/motivations (Trompenaars and Hampden-Turner 2012, 29).

Trompenaars and Hampden-Turner make these "basic assumptions - implicit" differences explicit and relevant from an MNE organizational management perspective by articulating them via this model. These cultural features translate into normatively positive and negative assessments of proper behavior and the affective emotions that associate with them, i.e. "norms and values" (Trompenaars and Hampden-Turner 2012, 29, see Figure 1). E.g. in diffuse and communitarian cultures, publicly criticizing a colleague is more likely to be viewed as a graver affair than in mechanistic, individualist cultures. These norms can be articulated, e.g. they can be formalized as law, or in another context as company policy. When they remain informal, they serve a social control function as an actor's conscience. They may be romanticized while being articulated to become symbolic ideals. Leadership may seek to manipulate them as semiotics and signs in the organizational policy making process.

Again, Trompenaars has stated elsewhere, "Norms are shared orientations of what we define as what we should do. Values are what we like to do. Basic assumptions are values that have become norms" ("Dr Fons Trompenaars on Culture" [*sic*] 2009, ~0:43-49). In a social context, individual and group actors strive to satisfy Maslowian needs, and they interactively respond to challenges to their fulfillment utilizing behavioral "basic assumptions - implicit." They are more likely to generate the responses they desire or expect if they share the same set of "basic assumptions – implicit" but they may not in a multicultural/multinational context. They may "like" to interact preferably with those who share these "basic assumptions – implicit." They may "like" to defend or advance this national ingroup in response to perceived threats or opportunities stereotypically perceived as emanating from other national outgroups. One of the prevalent values of *homo sapiens* particularly at the collective level, is to "like" to defend and expand the security and status of shared, large, intensely held, self-identity communities, i.e. nations (Cottam and Cottam, 2001). Actors "like" to act in this way while also prone to perceive a significant challenge, i.e. threat or opportunity, regarding the influence of these communities, i.e. their respective

nations. A common norm is that one should be loyal to their nation and betraying this nation in the form of subverting the sovereignty of the state governing it is treason and traitors are wicked.

The mutual sense a group has of what is "right" and "wrong" constitutes the systems of societal moral and ethical norms. They may develop on a formal level, i.e. as laws. They may develop on an informal level as "social control" (Trompenaars and Hampden-Turner, 2012, 30). I.e. this informal form of social control is known as one's so-called conscience: normative control. Collective values are motivations deriving from changing and evolving constituent actor compulsion responses to Maslowian needs within a national community embedded in the global context. Trompenaars and Hampden-Turner note that when the norms reflect the values of a national group, then the organizational control system is relatively stable. A destabilizing tension likely will emerge when norms do not reflect changing values. Disintegration of the control system is increasing likely to result. E.g. the norms of Soviet-imposed postwar coercive Stalinist Communism were discordant with the values of society in eastern Europe for years. The discrepancy intensified along with growing economic dysfunction (2012, 30). Political community identity values derive from a community's romantic, idealized worldview of a salient and intensely held shared membership in a self-identity ingroup, particularly national identity. Once Soviet coercive intervention to enforce them was ruled-out, the already weakened Communist regimes collapsed due to popular political participation expressing national sovereignty value demands.

Stereotyping and Polarization in Non-State Actors

In particular contexts, collective affect can drive collective national ingroup behavior against perceived threats to influence status, overriding short term material self-interest values. A nationalistic value is conceptualized here as a behavior pattern manifesting a thrust to achieve a desired collective future that addresses a perceived intense challenge to the influence of the national ingroup. Nationalistic subgroups are more prone to perceive challenges to their influence position in an MNE. A managerial aim is to avoid inadvertent miscommunication by the organizational leadership. It risks triggering MNE national subgroup collective perception of challenge to the influence rank of their national ingroup with which they intensely self-identify. The observer, analyst or manager can communicate about national differences in norms and values through their rhetorical articulation. E.g. an ideal American is self-reliant is a romanticized stereotype of self. It is an over-simplification, but it still is a sign/semiotic/meme defining the self vs. other about which the manager should know in order to avoid inadvertently communicating insult and humiliation. These signs/semiotics/memes include loyalty and defense of the nation, i.e. the self-defined ingroup cultural community. If a manager offends a staff member through appearing to denigrate their cultural values, then the emotional hostility emerges due to perceived threat and humiliation.

A manager's inadvertent offense is magnified because he or she is perceived as prejudiced while having control over staff employment and career prospects. Who a person is, is typically very much determined by their sense of membership in a shared cultural community of fate. I.e. it is a large, national cultural community that the modal citizen believes the members of which share a common past and therefore expect to have a common future. They demonstrate this identity value through their behavioral predisposition showing a preoccupation with its level of influence in the social environment. This culture includes a system of norms, i.e. prescriptions for right and wrong behavior (morals) and systems for resolving moral dilemmas regarding social behavioral choices (ethics) (Cooper, 2012). These norms and their idealizations and the romantic, symbolic stereotyping of them associate with intense emotions among ingroup members who seek influence to defend and assert them. They do so in different contexts, including in an MNE in unfortunate situations in which national polarizations have emerged due to ineffective leadership to prevent it.

The seven behavioral orientation continua of the Trompenaars and Hampden-Turner framework focuses upon comparing national societal cultural predispositions that national ingroup members may share. Their

organizational management leadership policy prescriptions in effect concentrate upon creating social creativity opportunities to integrate national subgroup collectivities of staff within an MNE. The aim is to communicate and integrate without inadvertently confusing and offending different national staff subgroups. Providing individual social mobility opportunities is necessary but not sufficient for effective MNE strategic management. The problems for organizational management become exponentially more acute when a subgroup comes to perceive/suspect that a manager is prejudiced and biased against the national subgroup. Individuals and aggregates who share strong nationalist predispositions are more prone to perceive such slights, whether intended or not. The form of this stereotyping inclines towards suspicion that the organizational leadership has its own nationalist agenda for its own national self-identity community, which it of course attempts to obscure. The result is more intense ingroup vs. outgroup social competition behavior, i.e. nationalist polarization, which interactively intensifies. It obstructs communication and leadership, leading to greatly weakened organizational leadership and effectiveness.

Trompenaars and Hampden-Turner affirm that a wide range exists among individual cultural personality traits within each culture, but this range has a pattern around an average. The variation around the modal norm can be seen as a normal distribution. Depending on the limits the observer wants to impose on each side of the distribution, the observer decides how to distinguish between one culture and another. E.g. US and French culture can have many similarities as well as differences. Typically, more noticed will be the differences, which organizational constituent participant observers label the typical culture of these two countries despite sharing many similarities as shown in Figure 2.

Figure 2: "Culture as Normal Distribution"
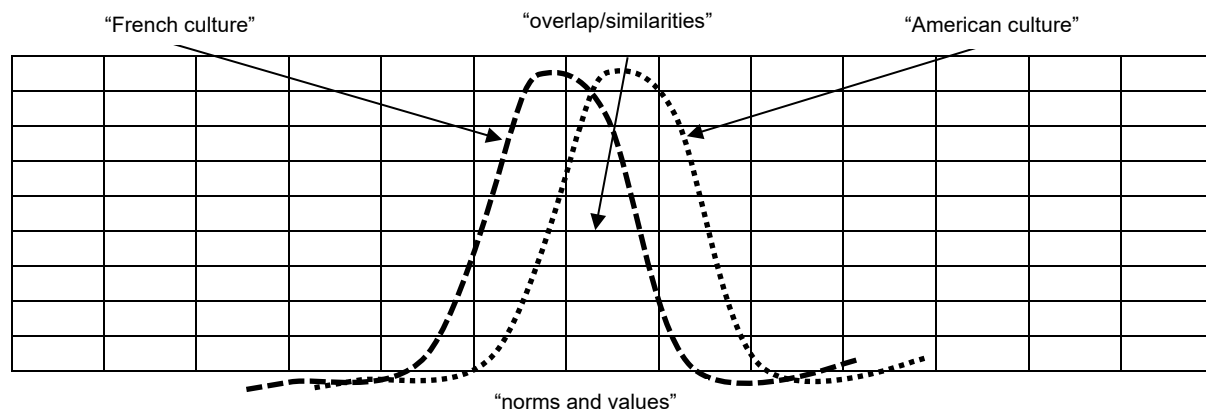
National identities through creation of state boundaries by their nature exaggerate differences between communities and individuals and reinforce overstated notions of cultural difference (Trompenaars and Hampden-Turner, 2012, 33). Trompenaars and Hampden-Turner emphasize that among their seven cultural dimension continua each national cultural society contains elements of both end points, while simultaneously romanticizing certain elements. E.g. the ideal-typical image of the American as rugged individualist is romanticized in the Western cowboy archetype, but so also is the soldier serving in the hierarchical American military. Effective MNE management preemptively avoids intraorganizational stereotyping among national subgroups via ethical training among MNE staff to avoid miscommunication.

Members of cultures with norms that differ significantly tend to describe each other in "terms of extremes" (Trompenaars and Hampden-Turner, 2012, 34). I.e. they tend to see each other stereotypically as indicated in Figure 3.

Figure 3: "Culture and Stereotyping"
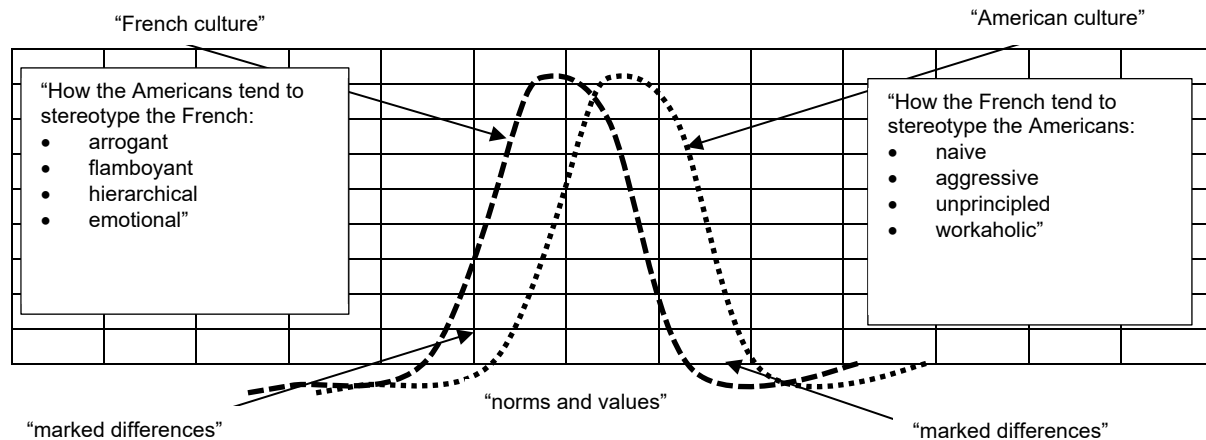
National cultural differences tend to be exaggerated and used in caricatures/stereotyping of the challenging other (Trompenaars and Hampden-Turner, 2012, 34). National ingroups are more prone collectively to display prevailing views of perceived challengers to ingroup influence. They are more likely to perceive these challenges in stereotypical terms that associate with more intense affect/emotion. Stereotypes as simplifications refer to perceptions of behavioral patterns of the other that lead to prejudice and bias towards the outgroup and its individual members. These stereotypes emerge in the midst of perceived national group competition over extended historical periods that become institutionalized within the national ingroup in defining self vs. other. Awareness of ineluctable interdependency undermines stereotyping.

Trompenaars and Hampden-Turner do not explain why observers tend to "notice" differences rather than similarities. Cottam and Cottam (2001) complement Trompenaars and Hampden-Turner (2012) by suggesting that people have a genetic tendency to form ingroups, and therefore outgroups as well. They tend to delineate these group boundaries in terms of prevailing perceived ingroup characteristics that differentiate the ingroup versus outgroups. The stronger the intensity of prevailing shared self-identification with the ingroup, the greater the tendency to perceive these cultural differences in simplified, i.e. stereotypical, and emotive terms. These patterns in stereotyping in response to a perceived challenge are regular and predictable in terms of the conditions that produce these collective perceptual and behavioral tendencies. On the basis of how the governing apparatus of the ingroup forms a stereotypical image of the perceived source of challenge, i.e. how it understands the challenge, it displays a behavioral pattern thrust. I.e. it acts through formal and informal policy patterns (Cottam and Cottam, 2001, 87-122).

Trompenaars and Hampden-Turner only note that "stereotyping" occurs because people tend to notice differences rather than sameness. People tend to equate something different with something wrong. "If their way differs from our way, then their way must not be correct." In each cultural system, individual personality mediates (2012, 34). Nationalistic ingroups, i.e. the modal members share a primary-level intensity self-identification with the same nation, are comparatively more prone to engage in this stereotyping during times of crisis. In other contexts, more complex motivations and concomitant diversity and complexity in perceptions of relevant actors external to the ingroup will predominate, e.g. exploiting trade opportunities (Cottam, 1977, 61).

A PATH FORWARD

Trompenaars and Hampden-Turner state that conscious and subconscious norms give actors a feeling of "this is how I normally *should* behave." They write also that values give the individual or group a "feeling" of "this is how I *aspire* or *desire* to behave." To determine a collective organizational strategic policy direction from collectively perceived alternatives, values and norms serve as dynamic collective organizational process characteristics. A drive that an individual or group has towards an end state regarding "the desirable" is a value [emphasis in the original] (2012, 30).

No single value will be driving the organizational collective. Different constituencies with differing degrees of influence in the dynamic policy making process within the organization tend to be carriers of different motivations. Organizational behavior will reflect a compound of motivations as the incremental policy making process functionally seeks politically to reconcile them. These values include economic profit values. They also include various government sectoral bureaucratic vested interest influence drives, leadership power maintenance, and even ideological, cultural and religious messianism. Nationalist influence concerns, of varying degrees of relative influence, as well public participation excitement, are communal values (Cottam, 1977, 31-53). Nationalist organizational behavior will tend to rise in intensity and influence during times, as noted, of organizational crisis, including engagement in stereotyping according to identifiable patterns (Cottam and Cottam, 2001, 111). One of the functions of effective management is to avoid organizational crises. Otherwise effective management may fail due to so-called acts of God/force majeure, e.g. the Covid-19 pandemic. Management is inevitably challenged by the unforeseen calamity and still decides how to respond from among alternatives perceived as feasible (Mcneil, 2020).

Cultural value ideal memes/archetypes/stereotypes may become evident when leadership rhetorically articulates them. They are part of normative active appeals in the context of conflictual competition with a target perceived as a source of challenge to the ingroup. Effective leadership crisis appeals generate public active support. The mass public in a nation-state is more prone to respond emotively to these nationalistic meme/stereotype/semiotic appeals by representative authorities. Moral norms and ethics relate to prescribed action, and in normative active appeals, this prescription is often justified rhetorically in terms of the well-being of the nation. National ingroup political polarization may build due to a perceived divergence between actual collective ingroup values, articulated cultural value ideals and actually enforced group norms. Trompenaars and Hampden-Turner note, e.g., the people in one culture may agree with the articulated national cultural value ideal towards which to strive: "Hard work is essential to a prosperous society." The group may enforce the actual behavioral norm, "Do not work harder than the other members of the group, because then we would all be expected to do more and would end up worse off." The tension may be between an articulated value ideal and a habitual behavioral norm (2012, 30). This hypothetical example may describe one element of the decay and disintegration of the Soviet-imposed, Communist regimes in eastern Europe.

Prevailing moral and ethical norms evolve as values/needs/drives of the organizational constituent components change albeit in a fractious, evolving, dynamic and polarizing social landscape. Tension between habitual, traditional practice and emerging, globalization-driven norms may push leaders to adopt new, formal norms, e.g. modern international human rights law. The rise of the early mass print media international reporting on the eternal horrors of warfare began with the mid-Nineteenth century Crimean War (1853-56), "the first full-blown media war" (Duncan, 2010, 929). The subsequent Martens Clause emerged at the 1899 Hague Convention regulating warfare. It puts the "laws of humanity" and the "dictates of public conscience" on the same footing as the "usage of States," i.e. actual state practice, as historical sources of "principles of international law" (Cassese, 2005, 160-61). These relatively recent transnational ethical norms are embodied in international regulations with weak enforcement mechanisms. Subsequent events repeatedly illustrated that nationalistic values are prone to override such individual human rights protections. I.e. the mass public is nationalistic and responds collectively to stereotyping of the other. These individual-focused human rights to protect the person from abuse by nation-state agents are more likely to be marginalized during a national crisis, e.g. war.

Trompenaars and Hampden-Turner maintain that for a group's cultural heritage to develop and elaborate, shared "meanings" of behavioral norms and cultural values are necessary. Consciously or subconsciously, different groups of people have chosen different definitions of good or bad, right or wrong (2012, 30). These systems of norms and values develop in parochial, traditional society and tend to be habitually and unconsciously accepted. The modern era is defined in part by the rise of mass political participation

demands as a new norm reflecting in part the community growth of the value/drive of nationalism. If values increasingly appear to conflict with prevailing, imposed moral and ethical norms, legal or otherwise, then the potential for societal norm rupture and revolutionary change increases.

Authorities, i.e. those who articulate and enforce the prevailing norms system, may attempt to adapt to these dynamic trends of changing values and norms to stabilize their regime of control over the public. If they fail, then they may be replaced by counter-elites, e.g. Trump. Globalization encourages this discrepancy between emerging behavioral norms and by now traditional values, e.g. the sovereign nation-state reflecting the formally or informally legitimated dominance of an ethnic group. Transnational globalization materially incentivizing norms of diversity accommodation confront mass conservative populist reactions: e.g. Brexit, i.e. the England-centered UK polity should be sovereign as an informal value vs. Britain must allow free movement of labor as an EU norm; e.g. Trump's election, i.e. the US is a majority Caucasian Judeo-Christian polity as a widely shared, informal value vs. the US should enforce substantive civil rights equality for women, LGBTQ people, minorities and all immigrants as global human rights norms.

In the post-Cold War era, "conflict emerging from competing identity community aspirations and conflict based on economic issues will likely be translated in terms of stereotypical representations of various actors. In such an event, strategic responses surely will be far less concerned with avoiding violence in the resolution of conflict than in dealing forcefully with a perceived threat or opportunity" (Cottam, 1994, 167). Organizational leadership confronts the challenge of reconciling this growing divergence between prevailing societal nationalistic values and globalization interdependency norms. The difficulty in doing so effectively in the liberal democratic policy making process contributes to creating opportunities for political entrepreneurs. Counter-elites exploiting traditional nationalistic value and norm ideals can gain more mass political support. This American nationalist conservative reactionary populist constituent hostility and rejection is the core of the Trump phenomenon. The political appeal limitations of the Sanders 2020 presidential campaign illustrate the narrower attraction of populist democratic socialism in the US.

The reconstruction of the neo-corporatist welfare state in the wake of the vast, extended, global economic disruption due to the Covid-19 pandemic is underway. ""We went to bed as America and woke up the next morning looking like social democratic Europe," Erik Gordon, professor at the Ross School of Business at the University of Michigan, said. "We've made fun of Europe propping up their failing steel companies and car companies, and when push comes to shove we're going to outdo them"" (Tankersley *et al*., 2020, para. 6). Reconciling nationalistic values with globalization interdependency norms implies legitimation of norm change utilizing nationalist value identity ideal symbols/memes as part of transformational leadership. National meme recombination can aim to legitimate the creation and distribution of substantive societal capacities to engage in individual social mobility and group social creativity. To the extent effective across traditional societal polarization fault lines, the authorities avoid ingroup vs. outgroup social competition.

One the one hand, Brexit and the 2020 Covid-19 pandemic crisis offer threats and opportunities to building new social mobility and creativity opportunities via Europeanization (Brattberg, Brudzińska and de Lima, 2020). On the other hand, nationalism threatens an ineluctably interdependent global polity as the US and Chinese nation-state authorities seek to bolster their public legitimacy amidst the pandemic's consequences. They mobilize their respective publics against the other by intensifying respective public threat perception. The US 2020 election may decide whether the US focuses on containing "Communist China" as "the single greatest threat to American security" for allegedly engaging in "imperialism" (Hawley, 2020, para. 9, 13, 14). Another US senator calls for "re-shoring" manufacturing operations from China to the US concomitantly with adoption of a US "industrial policy" (Rubio, 2020, para. 18, 1).

Corporatist intervention may interact with the Black Lives Matter social movement resurgence to create opportunities for social integration in the midst of perceived indirect social competition with China. The Chinese authorities have called attention to the 2020 BLM protests to counter American condemnations of

Beijing's escalating suppression of pro-democracy protests in Hong Kong. Beijing highlights deep American racial polarization (Hua, 2020). The two nuclear superpowers' respective condemnations of each other's internal human rights conditions are reminiscent of Soviet and American rejoinders amidst the Cold War. "Criticism of American racism formed such an important part of Soviet propaganda that the phrase "And you hang Negroes" was widely used in the Soviet era as an official retort to the West's Cold War claims of moral superiority" [*sic*] (Higgins, 2020, para.16). Some prominent African American intellectuals commented approvingly on the 1930s Soviet system in contrast to Jim Crow in the US (Ibid.). This indirect social competition in the nuclear setting instigated the space race between the US and the Soviet Union. China and the US compete to be the first to deploy a vaccine against the SARS-CoV-2 virus. "The nationalistic competition between Washington and Beijing to develop a vaccine first has begun to resemble the space race between the US and Soviet Union during the Cold War" (Haltiwanger, 2020, para. 16).

This corporatist redeployment for economic autarky would conflict with the intra-bloc trade liberalism of the US-led postwar international alliance configuration that lasted until the USSR disintegrated. China became a de facto US ally in containment of the USSR in the late 1970s. China utilized this Cold War US-anchored global liberal political economic regime for its own economic development (Lampton, D.M., 2019, 46). The hostility of American conservative populist nationalism to intra-bloc economic liberalism makes a return to Cold War era-type US trade, aid and immigration policies less likely. "Climate-change denial" is embedded in the Trump-dominated US Republican party (Rosenberg and Rutenberg, 2020, para. 19). The pandemic-induced severe economic downturn is likely to mobilize Republican resistance to US worldwide climate adaptation and development trade and aid to the Global South (Friedman, L., 2020). It creates opportunities for China's one-party authoritarian corporatist development model to intervene in the so-called developing world via cooperation to address the latter's intensifying crisis development challenges (DeDominicis, 2019).

CONCLUDING COMMENTS

The goal of this paper has been to illustrate the impact of nationalism as a value motivation with a foundation in nation-states on the behavior and management of multinational enterprises. The analysis engaged in a critical dialogue with some of the latest scholarly literature surveys of the state of the field of research on the relationship of culture to international business. It illustrated the insights achievable from conceptualizing culture as national loyalty community boundary delineators around which ingroup members tend to rally during organizational crises. It applied a theoretical framework conceptualization of nationalism drawing from political psychology to illustrate these dynamics and their policy-relevant consequences (Cottam and Cottam, 2001). Methodologically, this analysis illustrated its points with selected case study references as reported in the public record. This qualitative methodological approach is appropriate because of the collective nature of nationalist behavior reflecting idiosyncratic national histories and contexts. Economic nationalism manifests itself in the public sphere through its impact on the organizational policy process as revealed in multinational organizational crisis case studies.

The paper illustrated the contributions that a political psychological conceptualization of nationalism can offer in developing highlighted issues in the analysis of culture in international business. The primary findings of the analysis included that intra-organizational polarization along national identity fault lines in multinational enterprises demonstrate predictable patterns. These configurations in collective national ingroup perception and behavior depend upon national ingroup internal as well as dynamic external contextual factors. The organization constitutes part of the external environment. I.e. national subgroups within a multinational enterprise may engage in social competition due to perceived challenge to national ingroup status prerogatives. States are vast, complex organizations, and nation-states differ from multinational and multiethnic states in that nation-states are more prone to engage in predictable perceptual stereotype patterns. Nation-state polities are more likely to exhibit intense affect associating with these perceived stereotyped sources of challenge. Their component constituencies are collectively more willing

to sacrifice material profit in order to defend and expand the sovereignty of the nation-state. They are concomitantly more predisposed to view MNEs headquartered in the nation-state as tools for increasing the sovereign authority and competitive influence capability of the nation-state.

The strategic policy recommendations of this study's findings imply that the European Union can play a balancing role as a non-nation-state, confederal, multinational international actor. The international political economic system has been dominated by nation-states, namely the US, China and Japan, along with a recovering Russia and mid-range European nation state powers. The political potential for crisis escalatory international conflict is great and difficult to manage amidst such actors. Nationalist value collective behavioral choice patterns intensify in the midst of rapid societal change. The European Union as a multinational economic superpower can strive to play a mediating role between the nation-state superpowers by mobilizing their business partner allies in these nation-states. The EU is less prone to be perceived as a source of nationalistic imperial threat in Moscow, Washington and Beijing because it is not itself a nation-state or controlled by any one nation state. While traditionally allied with the US via NATO, the EU will need to partner with Beijing to meet the intensifying global challenge of anthropogenic climate change.

The limitations of this paper center on its lack of analysis on the content of the lobbying efforts of the vast vested economic interests in global trade and commerce. During periods of perceived intensifying national crisis polarization, populism can override these interests, leading to Brexit as well as Trump's election. These nationalistic episodes themselves may be comparatively brief, while the ineluctability of global interdependence continually deepens. E.g. the substantive meaning of Brexit for the UK in its relation to the EU are unclear; the EU will remain by far the UK's biggest trading partner. Much of reactionary nationalist populism appears to be focused on immediate symbolic payoffs and short-term disruptions rather than long-term global decoupling. MNE case studies highlighting reconciliation of national ingroup recognition political pressures with international interdependency social creativity opportunities would be fruitful. Future research foci include US government intervention in its economy to securitize national sustainable development. Globally, corporatist public private partnerships in established industries as well as in biotech and other sunrise sectors increasingly characterize capitalism. It is a trend that is particularly likely if the pandemic public health global emergency in effect institutionalizes public health as a stark national security issue. The legitimation of US corporatist intervention in society evidently relies primarily on securitization of this intervention which politically incentivizes identifying a new Cold War-type adversary, e.g. China.

REFERENCES

Abi-Habib, M. (2020) "India Bans Chinese Mobile Apps Like TikTok," *New York Times*, June 30, p. B5.

Abisaab, M. (2014) "Warmed or Burnt by Fire? The Lebanese Maronite Church Navigates French Colonial Policies, 1935," *Arab Studies Quarterly* vol. 36(4), p. 292-312. ProQuest Central.

Adamson, F.B. and M. Demetriou (2007) "Remapping the Boundaries of 'State' and 'National Identity': Incorporating Diasporas into IR theorizing," *European Journal of International Relations,* vol. 13(4), p. 489-526. ProQuest Central.

Antonakis J., B.J. Avolio and N. Sivasubramaniam (2003) "Context and Leadership: An Examination of the Nine-Factor Full-Range Leadership Theory Using the Multifactor Leadership Questionnaire," *The Leadership Quarterly*, vol.14(3), p. 261-295. doi:10.1016/S1048-9843(03)00030-4.

Avolio B.J., F.O. Walumbwa and T.J. Weber (2009) "Leadership: Current Theories, Research, and Future Directions," *Annual Review of Psychology*, vol. 60(2009), p. 421-449. doi:10.1146/annurev.psych.60.110707.163621.

Axinn, S. (1958). "Kant, logic, and the concept of mankind," *Ethics*, vol. 1958(68), p. 286-291.

Brannen, M.Y. (2004) "When Mickey Loses Face: Recontextualization, Semantic Fit, and the Semiotics of Foreignness," *Academy of Management Review,* vol. 29(4), p. 593-616. doi:10.5465/AMR.2004.14497613.

Brattberg, E., K. Brudzińska and B.P. de Lima (2020) "Contending European Views on a New Post-Brexit Balance," *Carnegie Endowment for International Peace – Articles*, March 25. ProQuest Central.

Brincat, S. (2009) "Reclaiming the Utopian Imaginary in IR Theory," *Review of International Studies*, vol. 35(3,July), p. 581-609. doi:10.1017/S0260210509008663.

Bruce, N. (2020) "U.S. Wins Bid for Key Post on Global Tech," *New York Times*, March 5, p. B5.

Bryman A. (1992) *Charisma and Leadership in Organisations*, London: Sage.

Buckley, P.J., J.P. Doh and M.H. Benischke (2017) "Towards a Renaissance in International Business Research? Big Questions, Grand Challenges, and the Future of IB Scholarship," *Journal of International Business Studies,* vol. 48(9), p. 1045-1064, doi:10.1057/s41267-017-0102-z.

Byrne, J. (2018) "National Identity and Migration in An Emerging Gateway Community*," Social Sciences*, vol. 7(5), p. 1-17. doi:10.3390/socsci7050073.

"Carlos Ghosn - Renault Crashes into the Red in Aftermath of Ghosn Affair Fallout," (2020) Radio France Internationale. February 14, ProQuest Central.

Casselman, B. and J. Tankersley (2020) "Bridging Divides, Americans Agree Outlook Is Bleak," *New York Times*, April 18, p. B3.

Cassese, A. (2005) *International Law.* Oxford: Oxford University Press.

Choi, E., and J. Woo (2018) "Confucian Legacies and the Meaning of Democracy in South Korea: A Cultural Interpretation," *Korea Observer*, vol. 49(3), p. 493-515. doi:10.29152/KOIKS.2018.49.3.493.

Chung, E.B. and B. Woo (2015) "We Like You Better When We Feel Good about Ourselves: Group-Affirmation in an International Context," *Korea Observer* vol. 46 (2, Summer), p. 387-421. http://lps3.search.proquest.com.libproxy.catholic.ac.kr/docview/1699511842?accountid=10373.

Cooke, B., A.J. Mills and E.S. Kelley (2005) "Situating Maslow in Cold War America: A Recontextualization of Management Theory," *Group & Organization Management,* vol. 30(2), p.129-152. ProQuest Central.

Cooper, T.L. (2012) *The Responsible Administrator: An Approach to Ethics for the Administrative Role*, sixth edition, New York: Jossey-Bass.

Cottam, R.W. (1977) *Foreign Policy Motivation: A General Theory and a Case Study*. Pittsburgh: University of Pittsburgh Press.

Cottam, R.W. (1994) *The Return of Politics to International Strategy* (unpublished manuscript).

Cottam, R.W. and M.L. Cottam (2001) *Nationalism and Politics: The Political Behavior of Nation States*. Boulder, CO: Lynne Reinner.

Cottam, R.W. and G. Gallucci (1978) *The Rehabilitation of Power in International Relations: A Working Paper* Pittsburgh: University of Pittsburgh Center for International Studies.

Creswell, J.W. (2013) Qualitative Inquiry and Research Design: Choosing Among Five Approaches (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J.W. and C.N. Poth (2018) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). Thousand Oaks, CA: Sage.

Day, G. (2017) "From Thought to Action: How Global Organizations Move Employees Past Cognitive Cultural Intelligence to Win the Heart of CQ," *Journal of Organizational Culture, Communications and Conflict*, vol. 21(2): p. 1-15,12A. ProQuest Central.

De Ceuster, K. (2001) "The Nation Exorcised: The Historiography of Collaboration in South Korea," *Korean Studies,* vol. 25(2), p. 207-242. ProQuest Central.

De Marchi, G., G. Lucertini and A. Tsoukiàs (2016) "From Evidence-Based Policy Making to Policy Analytics," *Annals of Operations Research*, vol. 236(1), p.15-38. doi:10.1007/s10479-014-1578-6.

DeDominicis, B.E. (2018) "Back to the Future: Post-Cold War US National Security Strategy and American Hegemony under the Trump Administration," *The Global Studies Journal*, vol. 11(3), p. 1-25. doi:10.18848/1835-4432/CGP/v11i03/1-25.

DeDominicis, B.E. (2020) "Democracy in the European Union: The Social Identity Dynamics of Europeanization," *Review of Business & Finance Studies*, vol. 11(1), p. 1-30.

DeDominicis, B.E. (2019) "Indo-Pacific Grand Strategy: Power Politics and Sustainable Development," *The International Journal of Climate Change: Responses and Impacts*, vol. 11(2), p. 1-20. doi:10.18848/1835-7156/CGP.

Devinney, T.M. and Jan Hohberger (2017) "The Past is Prologue: Moving on from Culture's Consequences," *Journal of International Business Studies,* vol. 48(1), p. 48-62. doi:10.1057/s41267-016-0034-z.

Dooley, B., and M. Inoue (2020) "Japan Defends Its Justice System After Carlos Ghosn's Flight," *New York Times* (online), January 5. ProQuest Central.

"Dr Fons Trompenaars on Culture" [*sic*] (2009) ~0:43-49. January 13. Accessed March 6, 2019 at https://www.youtube.com/watch?v=JqNI8le1bF4.

Duncan, I. (2010 "Recent Studies in the Nineteenth Century," *Studies in English Literature, 1500 – 1900,* vol. 50(4), p. 895-932. ProQuest Central.

Ebhardt, T., A. Nussbaum and D. Lepido (2019) "Fiat Chrysler and Peugeot to Merge into $46 Billion Automaker," *Bloomberg Wire Service,* December 18. ProQuest Central.

"End the College Legacy Spoils System: [Editorial]" (2019) *New York Times,* September 8, p. SR8.

Etzioni, A. (1990) "Toward a Deontological Socioeconomics" In *Social Economics: Retrospect and Prospect*, edited by M. Lutz, p. 221-33, Boston: Kluwer Academic Publishers.

Etzioni, A. (1964) *Modern Organizations*. Englewood Cliffs: Prentice-Hall.

Ewing, J., N.E. Boudette, B. Dooley (2019) "Rewards and Risks Of Merging Car Giants," *New York Times*, May 30, p. B1.

Fischer, M.J. (2007) "Culture and Cultural Analysis as Experimental Systems," *Cultural Anthropology*, vol. 22(1), p. 1–65. doi:10.1525/can.2007.22.1.1.

Friedman, L. (2020) "G.O.P. Aims to Use Pain of Shutdown to Tarnish Climate Change Policies," May 9, *New York Times*, p. A19.

Friedman, M. (2020) "Israel's Unlikely Pop Sensation: [Op-Ed]," *New York Times*, March 1, p. SR8.

Galtung, J. (1967). *Theory and Methods of Social Research*, Oslo: Univsitetsforlaget.

Gelfand, M. (2020) "To Survive the Coronavirus, the United States Must Tighten Up," *Boston Globe,* March 15, p. K7.

Gelfand, M.J., L.H. Nishii and J.L. Raver (2006) "On the Nature and Importance of Cultural Tightness-Looseness," *Journal of Applied Psychology*, vol. 91(6), p. 1225-1244. doi:10.1037/0021-9010.91.6.1225.

Ghosn, C. and P. Ries (2005) *Shift: Inside Nissan's Historic Revival*. New York: Doubleday.

Głowacka-Grajper, M. (2018) "Memory in Post-Communist Europe: Controversies over Identity, Conflicts, and Nostalgia," *East European Politics and Societies*, vol. 32(4, November), p. 924–35. doi:10.1177/0888325418757891.

Haltiwanger, J. (2020) "National-Security and Global-Health Experts Are Increasingly Concerned China Will Develop a Coronavirus Vaccine First," *Business Insider*, May 4. ProQuest Central.

Hanh, N.T.M. (2018) "Confucianism and Soft Power of China," *Journal of Social Research & Policy*, vol. 9(1), p. 81-92. ProQuest Central.

Hanson, J., and D. Yosifon (2004) "The Situational Character: A Critical Realist Perspective on the Human Animal," *Georgetown Law Journal,* vol. 93(1), p. 1-179. ProQuest Central.

Hawley, J. (2020) "Abolish the W.T.O.: [Op-Ed]," *New York Times*, May 6, p. A27.

Heider, F. (1958[2015]) *The Psychology of Interpersonal Relations*. Eastford, CT: Martino Fine Books.

Higgins, A. (2020) "Russia Seizes U.S. Turmoil as Evidence of Hypocrisy," *New York Times*, June 5, p. A20.

Higgins, A, and A.E. Kramer (2020) "How the Russia-Saudi Oil Alliance Devolved into a Bitter and Costly Breakup," *New York Times,* March 11, p. A7.

Hofstede, G. (1980) *Culture's Consequences.* London: Sage.

Hofstede, G., G.J. Hofstede and M. Minkov (2010) *Cultures and Organizations: Software of the Mind.* New York: McGraw-Hill Education.

Horak, S. (2018) "Join in Or Opt Out? A Normative–Ethical Analysis of Affective Ties and Networks in South Korea," *Journal of Business Ethics*, vol. 149(1), p. 207-220. doi:10.1007/s10551-016-3125-7.

Howe, B.M. (2017) "Korea's Role for Peacebuilding and Development in Asia," *Asian Journal of Peacebuilding,* vol. 5(2), p. 243-266. ProQuest Central.

Hua, S. (2020) "China Trumpets Trump's Attacks on American Protests to Counter Criticism on Hong Kong; Beijing Points to Protests and Trump's Call for a Tougher Crackdown to Highlight what it Regards as American Hypocrisy," *Wall Street Journal* (Online), June 2. ProQuest Central.

Hultman, K. (2017) "Unleashing the Power of Values," *Organization Development Journal*, vol. 35(2), p. 17-32. ProQuest Central.

Inglehart, R. and W.E. Baker (2000) "Modernization, Cultural Change, and the Persistence of Traditional Values," *American Sociological Review*, vol. 65(1), p. 19-51. ProQuest Central.

Inglehart, R.F. and P. Norris (2016) "Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash," Harvard Kennedy School, HKS Working Paper No. RWP16-026, p. 1-52. Retrieved February 23, 2020 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2818659&download=yes.

Issa, S. (2016) "Picturing the Charlie Hebdo Incident in Arabic Political Cartoon," *Arab Studies Quarterly,* vol. 38 (3) (Summer), p. 562-585. http://lps3.search.proquest.com.libproxy.catholic.ac.kr/docview/1814164277?accountid=10373.

Jakobsen, J. and T.G. Jakobsen (2011) "Economic Nationalism and FDI: The Impact of Public Opinion on Foreign Direct Investment in Emerging Markets, 1990-2005," *Society and Business Review,* vol. 6(1), p. 61-76. doi:10.1108/17465681111105841.

Kardaş, T. (2017) "Trump and the Rise of the Media-Industrial Complex in American Politics," *Insight Turkey,* vol 19(3), p. 93-120. doi:10.25253/99.2017193.08.

Kim, S.S. (2000) "Korea and Globalization (*Segyehwa*): A Framework for Analysis" In *Korea's Globalization*. edited by S.S. Kim, p 1-28, Cambridge: Cambridge University Press.

Kim, S.S. and Y.S. Choi (2019) "The Innovative Platform Programme in South Korea: Economic Policies in Innovation-Driven Growth," *Foresight and STI Governance*, vol. 13(3), p. 13-22. doi:10.17323/2500-2597.2019.3.13.22.

Kirkman, B.L., K.B. Lowe and C.B. Gibson (2017) "A Retrospective on Culture's Consequences: The 35-Year Journey," *Journal of International Business Studies*, vol. 48(1), p. 12-29. doi:10.1057/s41267-016-0037-9.

Knorr-Cetina, K. (1988) "The Micro-Social Order: Towards a Reconception" In *Actions and Structure: Research Methods and Social Theory*, p. 21-53. edited by Nigel G. Fielding, London: Sage.

Krakauer, J. (2009) *Where Men Win Glory: The Odyssey of Pat Tillman.* New York: Doubleday.

Kroeber, A.L. and C. Kluckhohn (1952) *Culture: A Critical Review of Concepts and Definitions: Papers*, Boston: Peabody Museum of Archaeology & Ethnology, Harvard University.

Lampton, D.M. (2019) "Reconsidering U.S.-China Relations: From Improbable Normalization to Precipitous Deterioration," *Asia Policy*, 14(2), p. 43-60. ProQuest Central.

Lampton, J. (2019) "Credibility is Paramount: By Demonstrating Consistency, Transparency, and Accountability, Accountants Show Colleagues, Management, and Regulators That They're Credible and Trustworthy," *Strategic Finance*, May, p. 21-22. Academic Search Complete.

Lea, R. (2018) "Notes on a Scandal: Ghosn Affair Rocks Industry [Edition 3]," *The Times,* November 24, p. 60.

Lee, Y. and K.T. Lee (2015) "Economic Nationalism and Globalization in South Korea: A Critical Insight," *Asian Perspective,* 39(1), p. 125-151. ProQuest Central.

Lee, K.T., Y. Lee and R. Lee (2014) "Economic Nationalism and Cosmopolitanism," *European Journal of Marketing* vol. 48(5), p. 1133-1158. doi:10.1108/EJM-02-2011-0068.

Leong, C. and M. Howlett (2017) "On Credit and Blame: Disentangling the Motivations of Public Policy Decision-Making Behaviour," *Policy Sciences* vol. 50(4), p. 599-618. doi:10.1007/s11077-017-9290-4.

Levitsky, S. and D. Ziblatt (2018) *How Democracies Die*. New York: Penguin.

Lewis, L., K. Inagaki and C. Cornish (2019) "Carlos Ghosn's Escape: The 5 Big Questions," *FT.Com*. December 31. ProQuest Central.

Lewis. R.D. (2005) *When Cultures Collide: Leading Across Cultures*. London: Nicholas Brealey Publishing.

Lingle, B. (2010) "Jon Krakauer's *Where Men Win Glory*: Pat Tillman as American Epic Hero," *War, Literature & the Arts: An International Journal of the Humanities,* vol. 22(1), p. 29-36. Academic Search Complete.

Luo, C. (2017) "Brexit and Its Implications for European Integration," *European Review,* vol. 25(4), p. 519-531. doi:10.1017/S1062798717000308.

Marin, A., R.K. Mitchell and J.H. Lee. (2015) "The Vulnerability and Strength Duality in Ethnic Business: A Model of Stakeholder Salience and Social Capital," *Journal of Business Ethics* vol. 130(2), p. 271-289. doi:10.1007/s10551-014-2207-7.

Maskovsky, J. (2017) "Toward the Anthropology of White Nationalist Postracialism: Comments Inspired by Hall, Goldstein, and Ingram's "The Hands of Donald Trump," *HAU:Journal of Ethnographic Theory,* vol. 7(1), p. 433-440. doi:10.14318/hau7.1.030.

Mathews, J. (2017) "Entrepreneurial Leadership: A Conceptual Examination," *IUP Journal of Entrepreneurship Development,* vol. 14(4), p. 31-50. ProQuest Central.

McKay, S. (2010) "Efficacy and Ethics: An Investigation into the Role of Ethics, Legitimacy and Power in Planning," *The Town Planning Review* vol. 81(4), p. 425-444. doi:10.3828/tpr.2010.10.

McLain, S. (2020) "Nissan Cuts Ex-CEO Saikawa's Exit Package; Board Decides to Pay Ousted CEO about $3 Million, Down from Initial Calculation of $15 million," *Wall Street Journal (Online)*, February 21. ProQuest Central.

McLain, S. and N. Kostov (2020) "Business News: Nissan-Renault Alliance Stalls on Road to Comeback," *Wall Street Journal,* April 6, p. B3.

Mcneil, D.G. Jr. (2020) "Halting Virus Will Require Harsh Steps, Experts Say," *New York Times*, March 23, p. A1.

McRae, H. (2016) "Will Brexit Help or Damage British Businesses?" *The Independent*, May 24. Retrieved April 29, 2020 from https://www.independent.co.uk/news/uk/brexit-eu-referendum-what-will-happen-to-british-business-if-uk-votes-to-leave-a7046941.html.

McSweeney, B., D. Brown and S. Iliopoulou (2016) "Claiming Too Much, Delivering Too Little: Testing some of Hofstede's Generalisations," *Irish Journal of Management,* vol. 35(1), p. 34-57. doi:10.1515/ijm-2016-0003.

Merriam, S.B. (2009) *Qualitative Research: A Guide to Design and Implementation*. New York: Jossey-Bass.

Minkov, M. and G. Hofstede (2011) "The Evolution of Hofstede's Doctrine," *Cross Cultural Management,* vol. 18(1), p.10-20. doi:10.1108/13527601111104269.

Mitchell, J. and H.J. Pulizzi (2009) "Chrysler Enters Chapter 11, Forms Alliance with Fiat," *LBO Wire*. ProQuest Central.

Mitchell, R.K., B.R. Agle and D.J. Wood (1997) "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts," *Academy of Management Review*, vol. 22(4), p. 853–886.

Mohanty, S. (2016) "Personality and Resilience: A Critical Analysis," *Indian Journal of Positive Psychology,* vol. 7(3), p. 339-342. ProQuest Central.

Moffett, M.W. (2013) "Human Identity and the Evolution of Societies," *Human Nature: An Interdisciplinary Biosocial Perspective*, vol. 2013(24), p. 219-267. doi:10.1007/s12110-013-9170-3.

Mulakala, A. and H. Ji (2020) "COVID-19 and China's Soft Power Ambitions," Weblog post. *The Development Policy Centre Blog*, Acton: Newstex, April 23. ProQuest Central.

Northouse, P. (2013) *Leadership: Theory and Practice*. Los Angeles: Sage.

Nugent, N. (2010) *The Government and Politics of the European Union*, seventh edition, London: Palgrave Macmillan.

Nye, J. (2004) *Soft Power: The Means to Success in World Politics*. New York: Public Affairs.

O'Dell, J. (2000) "Suit Seeks to Undo Daimler-Chrysler Merger," *Los Angeles Times,* November 28, p. C3.

Ortner, S.B. (1984) "Theory in Anthropology Since the Sixties," *Comparative Studies in Society and History*, vol. 26(1), p. 126-166. https://www.jstor.org/stable/178524?seq=1

Peterson, M.F. and T. S. Barreto (2015) "Culture Across the Social Sciences." In *Cross Cultural Research*, p. xix–xlvii. edited by M.F. Peterson, London: Sage Press.

Peterson, M.F. and T.S. Barreto (2018) "Interpreting Societal Culture Value Dimensions," *Journal of International Business Studies,* vol. 49(9), p. 1190-1207. doi:10.1057/s41267-018-0185-1.

Peterson, M.F. and T.S. Barreto (2014) "The Like It or Not Proposition: Implications of Societal Characteristics for the Cultural Expertise and Personal Values of Organization Members," *Journal of Organizational Behavior*, vol. 35(8), p. 1134–1152. doi:10.1002/job.1977.

Peterson, M.F., M. Søndergaard and A. Kara (2018) "Traversing Cultural Boundaries in IB: The Complex Relationships between Explicit Country and Implicit Cultural Group Boundaries at Multiple Levels," *Journal of International Business Studies,* vol.49(8), p. 1081-1099. doi:10.1057/s41267-017-0082-z.

Pettigrove, G. and N. Parsons (2012) "Shame: A Case Study of Collective Emotion," *Social Theory and Practice,* vol. 38(3,July), p. 504-530. doi:10.5840/soctheorpract201238327.

Pietikainen, P. (2001) "Dynamic Psychology, Utopia, and Escape from History: The Case of C.G. Jung," *Utopian Studies,* vol. 12(1), p. 41-55. Academic Search Complete.

Price, I. (2012) "The Selfish Signifier: Meaning, Virulence and Transmissibility in a Management Fashion," *International Journal of Organizational Analysis,* vol. 20(3), p. 337-438. doi:10.1108/19348831211243848.

Reed, S. (2020) "Airbus, A Jewel of the European Economy, Signals Distress," *New York Times,* April 29. ProQuest Central.

Rokeach, M. (1968) "The Theory of Organization and Change Within Value-Attitude Systems," *Journal of Social Issues*, vol. 24(1), p. 13–33.

Rosenberg, M. and J. Rutenberg (2020) "Disputing the Death Toll to Score Political Points," *New York Times*, May 10, p. A1.

Ross, A.A.G. (2013) "Realism, Emotion, and Dynamic Allegiances in Global Politics," *International Theory*, vol. 5(2), p. 273-299. doi:10.1017/S175297191300016X.

Rubio, M. "Creating a More Resilient Economy: [Op-Ed]," *New York Times*, April 21, p. A27.

Ryang, S. (2004). *Japan and National Anthropology: A Critique*, Abingdon: Routledge Curzon.

Salazar, A.R. and J. Raggiunti (2016) "Why Does Executive Greed Prevail in the United States and Canada but Not in Japan? The Pattern of Low CEO Pay and High Worker Welfare in Japanese Corporations," *American Journal of Comparative Law* vol. 64(3), p. 721-743. doi:10.1093/ajcl/avw007.

Scharpf, F.W. (1999) *Governing in Europe: Effective and Democratic?* Oxford: Oxford University Press.

Schmidt, V.A. (2013) "Democracy and Legitimacy in the European Union Revisited: Input, Output, Throughput?" *Political Studies*, vol. 61(1), p. 2–22. doi:<u>10.1111/j.1467-9248.2012.00962.x</u>

Schwartz, N.D. (2009) "Q and A - Ghosn Sees Smaller Car Industry," *International Herald Tribune*, June 17, p. 17.

Siltaoja, M., and M. Lähdesmäki (2015) "From Rationality to Emotionally Embedded Relations: Envy as a Signal of Power in Stakeholder Relations," *Journal of Business Ethics,* vol. 128(4), p. 837-850. doi:10.1007/s10551-013-1987-5.

Snyder, J. (2017) "The Modernization Trap," *Journal of Democracy*, vol. 28(2), p. 77-91. doi:10.1353/jod.2017.0026.

Solomon, S. (2019) "After Allegations of Spying, African Union Renews Huawei Alliance," VOA, June 7. Retrieved April 27, 2020 from https://www.voanews.com/africa/after-allegations-spying-african-union-renews-huawei-alliance.

Sparks, W.L. and J.F. Repede (2016) "Human Motivation and Leadership: Assessing the Validity and Reliability of the Actualized Leader Profile," *Academy of Educational Leadership Journal*, vol. 20(3), p. 23-43. ProQuest Central.

Stanford Encyclopedia of Philosophy: "Culture and Cognitive Science: What is Culture?" (2011) November 2. Retrieved March 4, 2020 from https://plato.stanford.edu/entries/culture-cogsci/#WhaCul.

Stanford Encyclopedia of Philosophy (2016): "Value Theory," July 28. Retrieved May 20, 2018 from https://plato.stanford.edu/entries/value-theory/.

Steinberger, M. (2018) "George Soros Bet Big on Liberal Democracy. Now He Fears He Is Losing," *New York Times (Online)*, July 17. ProQuest Central.

Stevenson, A., N. Kulish, D. Gelles (2020) "China's Elite Stepping In To Aid U.S." *New York Times*, April 25, p. B1.

Tankersley, J., A. Rappeport, D. Gelles, P. Eavis and D. Yaffe-Bellany (2020) "What Happens When Washington Holds the Levers of Capitalism," *New York Times,* March 27, p. B7.

Taras, V., S. Steel and B.L. Kirkman (2012) "Improving National Cultural Indices Using a Longitudinal Meta-Analysis of Hofstede's Dimensions," *Journal of World Business*, vol. 47(3), p. 329-341. doi:10.1016/j.jwb.2011.05.001.

Thomas, D.C., A. Cuervo-cazurra and M.Y. Brannen (2011) "From the Editors: Explaining Theoretical Relationships in International Business Research: Focusing on the Arrows, NOT the Boxes," *Journal of International Business Studies,* vol. 42(9), p. 1073-1078. doi:10.1057/jibs.2011.44.

Trompenaars, F. and C. Hampden-Turner (2012) *Riding the Waves of Culture: Understanding Diversity in Global Business*, third edition. New York: McGraw-Hill.

Trubowitz, P. and P. Harris (2015) "When States Appease: British Appeasement in the 1930s," *Review of International Studies*, vol. 41(2), p. 289-311. doi:10.1017/S0260210514000278.

Tung, R.L. and G. Stahl (2018) "The Tortuous Evolution of the Role of Culture in IB Research: What We Know, What We Don't Know, and Where We are Headed," *Journal of International Business Studies* vol. 49(9), p. 1167-1189. doi:10.1057/s41267-018-0184-2.

Van de Vijver, F.J.R. and Y.H. Poortinga (2002) "Structural Equivalence in Multilevel Research," *Journal of Cross-Cultural Psychology*, vol. 33(2), p. 141-156. doi:10.1177/0022022102033002002.

Venter, H. and E. Venter (2010) "Globalization and the Psychology of the New World Citizen: How the New Global Citizen Compares to Maslow's Level of Self Transcendence," *International Journal of Interdisciplinary Social Sciences*, vol. 5(7), p. 29-35. doi:10.18848/1833-1882/CGP/v05i07/51781.

Vohs, K.D. and A.C. Hafenbrack (2018) "Don't Meditate at Work: [Op-Ed]," *New York Times*, June 17, p. SR6.

vom Hau, M., J. Scott and D. Hulme (2012) "Beyond the BRICs: Alternative Strategies of Influence in the Global Politics of Development," *The European Journal of Development Research*, vol. 24(2), p. 187-204. doi:10.1057/ejdr.2012.6.

Wagner, D.A. (2014). *The Marketing of Global Warming: A Repeated Measures Examination of the Effects of Cognitive Dissonance, Endorsement, and Information on Beliefs in a Social Cause*. Dissertation, Trident University International, Ann Arbor. ProQuest Central.

Weeks, J. and C. Galunic (2003) "A Theory of the Cultural Evolution of the Firm: The Intra-Organizational Ecology of Memes," *Organization Studies*, vol. 24(8), p. 1309-1352. doi:10.1177/01708406030248005.

Weerts, D.J. (2014) "State Funding and the Engaged University: Understanding Community Engagement and State Appropriations for Higher Education," *Review of Higher Education,* vol. 38(1, Fall), p. 133-169. doi:10.1353/rhe.2014.0038.

Welzel, C. and R. Dalton (2017) "Cultural Change in Asia and Beyond: From Allegiant to Assertive citizens," *Asian Journal of Comparative Politics*, vol. 2(2), p. 112-132. doi:10.1177/2057891116675978.

Williams, J.C. (2020) "The Equal Rights Amendment Isn't the Answer: [Op-Ed]," *New York Times,* January 19, p. SR3.

Williams, R.M. (1979) "Change and Stability in Values and Value Systems: A Sociological Perspective," p. 15-46. In *Understanding Human Values: Individual and Societal*. edited by M. Rokeach, New York: The Free Press.

Witt, M.A. (2019) "De-Globalization: Theories, Predictions, and Opportunities for International Business Research," *Journal of International Business Studies,* vol. 50(7), p. 1053-1077. doi:10.1057/s41267-019-00219-7.

Zafirovski, M. (1999) "A Socio-Economic Approach to Market Transactions," *Journal of Socio-Economics* vol. 28(3), p. 309-335. doi:10.1016/S1053-5357(99)00020-7.

Zhong, R. (2020) "Former Huawei Workers Jailed by China Raised a Forbidden Topic: Iran," *New York Times*, April 26, p. A22.

Zicheng, Y. (2003) *Zhongguo Dazhanlüe [The grand strategy of China]*. Beijing: Zhongguo shehuikexue chubanshe.

ACKNOWLEDGMENT

BIOGRAPHY

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RETAIL STORE INDUSTRIAL SUPPLY SALES DURING COVID-19 PANDEMIC

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ABSTRACT

Covid-19 altered operations around the world, affecting buy costs and delivery times. For the Santa Clara outlet of Tritan Stores in Silicon Valley, a store dedicated to industrial supply sales, the warning lights turned on in January 2020. Consumption of masks, overalls and gloves skyrocketed. From the beginning of the pandemic to the present date, the branch continues working to satisfy customer needs, especially for the health and government sectors. Before the pandemic, the store worked with open doors and self-service. Now the sales agents absorbed those tasks and customers experience involves increased waiting time. This article presents five essential points that retail stores need to evaluate, to insure a safer and dynamic environment for employees and customers during the pandemic. We use sales data extracted from financial systems as a reference, to identify sales patterns, customer type and product's rotation. We conduct a motion study ich allowed us to identify one bottleneck and two risks. The goal of this research is to set a precedent on how to manage activities of retail stores during pandemics. The new reality changes the store's vision. "And change is the only constant" Heraclitus 500 B.C.

INTRODUCTION

Supported by global sourcing, quality and logistics operations, Tritan stores (a large retail chain), is a local source for a spectrum of industrial supply and products. Products include Original Equipment Manufacturer (OEM) equipment and Material Repair and Operation (MRO) equipment. Fasteners, abrasives, pneumatic, electrical, cutting tools, welding, safety, adhesives, and office supplies are products offered by the company. Fasteners (bolts, screws, nuts, flat washers, among others) are the primary commodity sold by the company. Products coming from different sources around the world are stored in one of the thirteen hubs (central warehouse) and are distributed to each store every day through commercial routes. The business strategy is to monopolize industrial products sales with a single seller generating significant cost saving. This strategy allows customers to simplify the generation of purchase orders, entry of invoices, receptions, and payments. The company offers over the counter sales, vending machines, customer's on-site store and e-commerce offerings. This article analyzed face-to-face sales with pick-up at store. Specifically, we examine the risk of COVID-19 contagion that exists for the interaction of employees with the customers.

To identify how COVID-19 affected the store's operation, a data report was extracted from the sales software Store Solution Desktop and the company's Enterprise Resource Planning (ERP). The information analyzed covers the period January to October 2020. In previous years, sales remained

stable, which allowed the company to estimate at the beginning of the year the volumes of goods that would be sold in coming period. However, under the pandemic sales have behaved differently than the company's prediction. In January 2020, an unusual peak was produced by a high demand for PPE (Personal Protective Equipment). This demand aligned with confirmation of the first case registered in the US. Figure 1 shows that after January, health restrictions started to impact the surrounding business including through their sales performance.

Figure 1: Sales Performance, Year 2020 (Month 1-10)
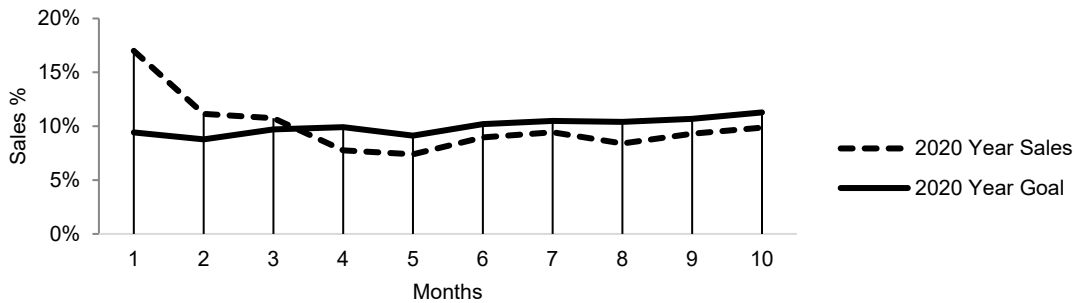
Figure 1 shows the behavior of the first 10 months of year 2020. In January, an unusual peak was produced by a high demand in PPE (Personal Protective Equipment), after March the sales started to stabilize but the store did not reach its yearly goal. The sales agents reported less visitors, this means less sales and their suspicious it was confirmed on this graphic where the sales are below the year goal.

Sales information was categorized in two type of transactions: Delivery orders occur at customer location and order pick-up occur at store's counter's store. According to the data the 62% of the transactions in 2020 came from pick-up operation and 38% from delivery. The goal of this paper is to demonstrate how to evaluate and manage the activity of a retail store during pandemic times to guarantee a safer pick-up order process. A second goal is to identify improvements for safer face-to-face business processes. We identify contagion risk and how to to reduce sales' time and improve employee productivity during the pandemic. This paper is organized as follows: The next section examines the related literature and develops the scope of this evaluation study based on five key points: Physical space, human capital, standardized work, Information and Communication Technology Tools (ICT) and communication with the customer. We then describe our data, methodology and discuss the results of our change proposal. The final section concludes the paper.

LITERATURE REVIEW

"In December 2019, a new coronavirus (SARS-CoV-2) emerged, sparking an epidemic of acute respiratory syndrome (COVID19) in humans, centred in Wuhan, China. Within three months, the virus had spread to more than 118,000 cases and caused 4,291 deaths in 114 countries, leading the World Health Organization to declare a global pandemic", Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Willer, R. (2020). "The world is globally connected, in terms of the movement of people, goods, and food, while even within close knit communities", Watkins, J. (2020). Globalization is the ideal condition for the virus to spread. David M. Morens, Gregory K. Folkers, and Anthony S. Fauci (2009) demonstrated that "The dynamics of the disease (pandemic) are significantly impacted by the degree of trade openness." Over 100 years ago, Science magazine published a paper on lessons from the Spanish Flu pandemic. The paper argued that three main factors stand in the way of prevention: People do not appreciate the risks they run, it goes against human nature for people to shut themselves up in rigid isolation as a means of protecting others, and people often unconsciously act as a continuing danger to themselves and others. Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Willer, R. (2020). The most important reason for raising awareness regarding the measures is to avoid the spread because the speed of virus

contagion is faster than the care capacity of health emergency (hospitals, doctors, respirators, among others), the industrial capacity (protective equipment, drugs and supplies) or for handling the massive number of dead bodies. Osterholm, M. T. (2005) said "Planning for a pandemic must be on the agenda of every public health agency, school, board, manufacturing plant, investment firm, mortuary, state legislature, and food distributor". A broad socioeconomic development plan including sector by sector plans and an ecosystem that encourages entrepreneurship is also needed so that those with robust and sustainable business models can flourish. Countries around the world imposed a number of protective measures to contain the exponentially increasing spread. This includes social distancing, avoiding unnecessary travel, and a ban on congregations. Maria Nicolaa, Zaid Alsafib, Catrin Sohrabic, Ahmed Kerwand, Ahmed Al-Jabird, Christos Iosifidisc, Maliha Aghae, Riaz Agha (2020).

The global economy is close to collapse, and people and their employees are the key to avoiding it, so we must start planning for an escalation in our response to the economy and its relationship to coronavirus infections. Physical space, human capital, standardized work, Information and Communication Technology tools (ICT) and communication with the customer are factors that can support the company in develop procedures that ensure buying and selling operations are carried out in a safe environment. We describe a concrete example in a retail store, but the evaluation can be done in all types of businesses and sectors. The physical space is the first key point studied, because it alters human relationships and the way we interact in supply centers (Ana Zazo-Moratalla and Alberto Álvarez-Agea, 2020). For Iglesias, M. C. (2020) "The physical space where the activities take place, the number of workers or the number of visits that arrive daily, among other aspects, must be considered. The frequency with which disinfection are carry out in each workspace, installing hydrogel dispensers in common spaces or proposing contactless access are some measures recommended by experts".

"Social distancing, self-isolation and travel restrictions have led to a reduced workforce across all economic sectors and caused many jobs to be lost" Maria Nicolaa, Zaid Alsafib, Catrin Sohrabic, Ahmed Kerwand, Ahmed Al-Jabird, Christos Iosifidisc, Maliha Aghae, Riaz Agha (2020). The impacts on human capital is our second point of interest. Companies should impose stronger controls, vigorous measures, and COVID-19 prevention campaigns, that allows employees to be aware of how to support isolation of the virus and prevent it from spreading in a social and work culture (González, , 2020. "According to the Federal Emergency Management Agency (FEMA), more than 40% of businesses never reopen after a disaster, and for those that open again, only 29% were still working after two years". Bahr, N. (2020).

Companies most affected by the economic and social crisis of COVID-19 imposed cuts in their workforce, in working hours and salaries for their employees. However, large distributors find themselves with a need for staff (Especial Directivos, 2020). Regardless of the situation you face with the workforce in your company, it is mandatory to have standardized work instructions to help employees with decisions. This third key point will support firm efforts to define "the safest and most efficient method to do the work that meets the needed quality" (Martin, & Bell, 2011). Within the company, the various functional departments must collaborate closely to maximize the logistics performance of the company. The company must also integrate its logistics system with those of its suppliers and customers to maximize the performance of the entire distribution system (Ballou, 2004).

Information and Communication Technology tools (ICT) are the fourth key point considered in the strategy. New business model trends are conducted through wireless networks, Web 2.0, Artificial Intelligence (AI), business intelligence application and technologies for big data analysis, (Zoroja, Klopotan, & Stjepić, 2020). All physical goods, people and material flows are triggered and paralleled by ICT. The warehouse and supply chain process is kept moving by communication and the supply of information, Stuart Emmett (2005). ICT are responsible for transparent communication and quick

decision-making, based on data that allows the company to have an agile mind-set and speed up the changes. Real time information and a lean process allows companies to share reliable information to the customers improving the communication in both sides.

The timing and quality of information enables decision-making. Good information enables good decisions to be made (Emmett, 2005). ERP (Enterprise Resource Planning) is a computer-based tool capable of unifying various business processes and structuring the information into an advanced data structure entity (Xulu & Suknunan, 2020). ERP allows the company to optimizing processes and resources, which affects the optimization and efficiency of management itself and the relationship with customers especially if the company has CRM (Customer Relationship Management). From this literature the last key point relates to communication with the customer. Retail stores play an important role to captivate digitized customers, to gain their trust and loyalty, and to anticipate changes in demand (Directivos, 2020). Buying habits are not just one-channel. Online and on-site buying are used interchangeably by consumers. Customers can get information and compare it regardless of whether they make the purchase in another channel. Effective communication is important to promote customer's loyalty and is vital to company survival. In the current environment, companies are personalizing relationships with their customers to achieve competitive advantages, (Garrido, & Padilla, 2012). In particular, service companies seek to set up long-term relationships with customers. From this need came CRM, defined by the authors Binsar Kristian & Panjaitan, (2014). Like "the process of building and maintain profitable customer relationships by providing products that are valuable to consumers and create satisfied customers" aimed at their retention and loyalty. "While certain trends have been on the upswing for quite some time, our research shows the pandemic has sharpened consumers' need for transparency, sustainability and convenience" (Barr ,2020).

DATA AND METHODOLOGY

The research method here is exploratory, using direct observation and analysis of primary sources which include data collected from the company's sales information. Time measurements were conducted with the sales agents. The structure of investigation is to analyze sales patterns, identify the problems that affect pick-up orders and propose improvement solutions. Data shows that 62% of transactions in 2020 came from pick-up operations while 38% came from delivery. The pick-up operation is sub-divided into two categories: on account sales represent 58% of the total and cash customers represent the remaining 42%. Customers, with accounts, are familiar with the materials and makes and place request in advance by phone or directly at the store. They typically buy in bulk quantities since their jobs are related to big projects. Once the sales agent receives the customer's request, he reviews availability in the store stock. If the material is not available it takes one to five days to be received, depending on the relevant hubs (central warehouse) location. If the material is coming from a manufacturer or distributor, the window for delivery depends on their stocks, production time and location.

Once the material is ready for pick-up, the customer receives a notification from the store to pick up the order at counter. Depending on the payment terms negotiated with the customer, invoices can be closed daily or through a final statement by week, bi-weekly or at the end of month. Customers without an account usually come to the store looking for products in convenient quantities (5 pieces per bag). They rarely buy bulky quantities. The sale is closed immediately, since they pay by credit card. If the material is not available at the store, the customer looks for other supply options with immediate availability since the store does not place orders for this type of customer.

Both types of customers (with and without account) require technical assistance with fasteners to get the diameter, length, pitch and steel grade type (fastener's measurement). They also sign a packing

slip during payment. Figure 2 shows the process flow. In the sale's order steps, the fastener's measure and packing slip signature (highlighted figures) represent a daily risk of contagion, since the operation require face to face and contact interaction.

Figure 2: Current Sales Process Flow
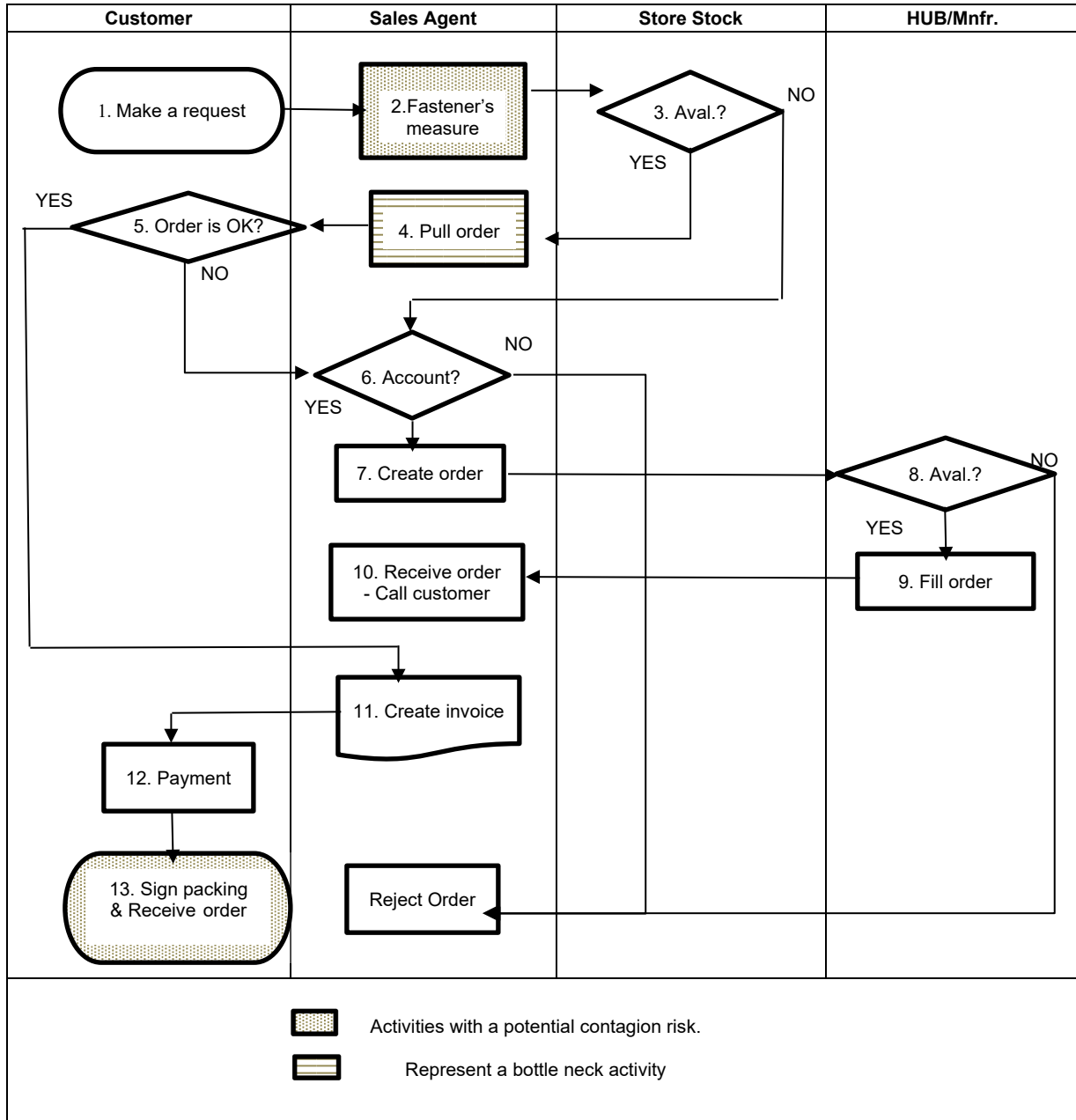
This figure shows the current sales order process at the store face-to-face. The fastener measure is a potential contagion risk, since the sales agent needs to get the technical specification to sell the product. The wait time starts from step 4., when the employee needs to do a physical inspection to review availability or to pull the order from stock. for filling the order, the sales agent needs to walk back and forth several times to complete this step.

For the standardized work observation, we obtained a sample (n) of 63 time-readings, to identify the average time to serve pick-up customers. For the calculation, we used a confidence coefficient of 90%, a $Z\alpha$ value of 1.645, and a maximum accepted estimation error of 10% (e). The store reported

4,418 sales transactions in the last ten months of 2020 (N), of which the 62% (p) represent the pick-up transactions with 2,379 operations and the 38% (q) represent the delivery with 1679 transactions. This sample size will be used to take build the standardized time's readings during the pick-up process (face-to-face sales) as shown in Equation 1.

$$n = \frac{N * Z\alpha^2 * p * q}{e^2 * (N-1) + Z\alpha^2 * p * q} \tag{1}$$

where N represent the population size or universe, Zα value is the statistical parameter that depends on the confidence level and the maximum accepted estimation error. The p represents the probability of success, while the q represents the probability of failure (1-p) and finally the n like the sample size.

RESULTS AND DISCUSSIONS

For the physical space evaluation, we considered the layout space of 5,757 square foot (121 x 47.58 ft), which is perfect for the current six employees. According to the County Health Officer's rules regarding capacity, the risk of COVID-19 transmission increases when there is a high density of people present at a facility. To reduce this risk, the County Health Officer established that the retail store can open with 20% of their capacity. Before the pandemic, the store worked with open doors for all customers with self-service, but with the health crisis, the sales manager restricted access and limited service to one customer in the store with the sales agents responsible for taking the customer's order and filling it. The original layout was designed to get the customer's visual attention but now caused a bottle neck since high rotation products are located in the back of the store. We suggested reorganizing the store to place high rotation products closer to the point of sale. This process would reduce transit times as showed in Figure 3.

Figure 3: Current Layout vs the Proposed Layout
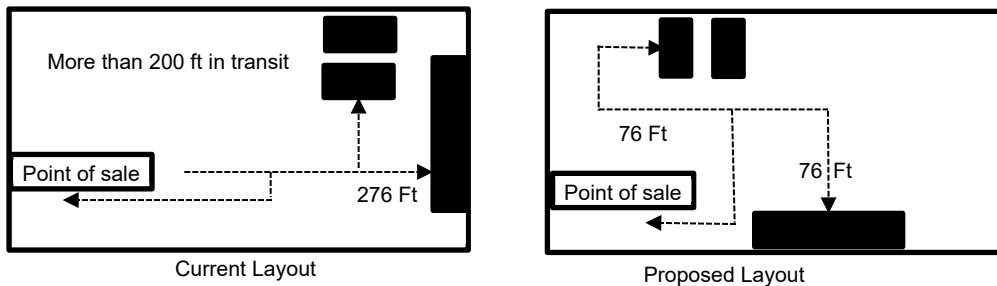
This figure shows the floor layout. The black rectangles represent material with high consumption that were placed more than 268 ft from the from point of sale. With the new layout proposal, transits are decreased to a distance of 76 ft.

Several times there were two customers inside the lobby store due to climate conditions (cold, hot, rain) which is fine if six feet social distancing rules are respected. The Company's guidelines promote COVID-19 disinfection protocols, but employees do not feel the need to follow them even if the store does not have a janitorial service. Restrooms were available to customers, but workplace break areas did not have restrictions. Advertisements promoting the use of face masks, social distancing and a maximum capacity in the store were displayed. We observed employee commitment to sales and distribution of materials but not to maintaining health conditions. The manager shared N-95 mask and gloves with the employees and were always made available to the employees. But even if the company's guidelines promoted COVID-19 prevention, a behavior of concern was observed in the manager and as a result in its employees who generated a false confidence. They decided not to wear a mask unless a customer was inside the store. Sometimes they overlooked wearing a mask even

though the customer was not wearing it either.

For the standardized work (pick-up process observation), with a sample (n) of 63 time-readings, we obtain the average time per sale (pick-up). Five main steps were identified: 1. Customer request (the customer present a material requirement), 2. Fastener measurement (to get the technical specifications: diameter, length, pitch and steel grade type), 3. Fill order (employees visually check availability for every sale and cross the store to fill the order), 4. Validation (customer confirms the order, changes the product or adds a complement), 5. Payment and order reception (the customer signs a packing slip to conclude the sale operation).

The results in Table 1 confirm the layout is not friendly with the new operation under Covid-19. Time motion analysis shows that pick-up customers usually buy two products per visit. Some 80% of the sales are related to bolts with a small presentation (5-10 pieces per package). However, these materials were located around 200 feet from the point of sale, leading employee to cross this distance to acquire and return the product for each sale. The main problem is if the customer changes the specification, size, material or adds a complement to the product requiring additional transits. The proposed new layout places the highest sales products close to the point of sale. The results show an average of 6 minutes per sale based on the original layout. This time can be reduced significantly with the proposed.

COVID-19 contagion risks were identified in steps 2 and 5 (Fastener's measurement and payment). During fastener measurement, the sales agent needs to interact face-to-face with the customer and take the customer's samples to get the technical specification. If the sale agent has another customer waiting to be attended, he does not have time to disinfect their hands and the area for the next customer. The second risk occurs during the payment when the customer uses the pen in the bank terminal to sign the packing slip. This pen is not disinfected between customers.

Table 1: Average Consolidated Time / Sale Operation (Pick up)

Activity	Average Time	Observation
Customer makes a request	00:26.442	
Fastener's measure	01:45.820	Risky
Fill order (Transits)	03:00.237	Transit time =Bottleneck
Validation	01:17.563	
Payment + signature packing slip and pick-up order	01:20.825	Risky
Total time (min)	06:42.608	
Total time (hr.)	0.11	
# of type products	2.14 (different locations)	Placed in different locations
# of transits	2.62 / product	
Distance / transit (Ft)	190.72 / product	

The transits times might be decreased by half with a new material layout, based on the products with high rotation.

With the new pick-up process proposal, account and cash customers create orders in advance by phone or order online. When the material is ready to go, they receive an electronic code for the locker's pick up. Information such as name, email and payment are mandatory to close the transaction. Packing slip signatures, were exchanged for an electronic code that customers scan from their phones. It takes 35 seconds to the machine to deliver the material. Customer experiencing the new purchasing trend feel safer. Considering 2,739 sales (order pick-up) with a 0.11 hours per sale, we obtained a total of 645.62 work hours in 10 months. This time utilized can be reduced by half with the proposed modified layout based on demand and fastener measurement station). With the new proposal the minimum estimated saving is $22,788.48 in the eight stores around Silicon Valley as shown in Table 2. This

proposal could have a higher impact if implemented across the almost 2,000 branches in the US evaluation.

Table 2: Average Consolidated Time / Sale Operation

	Current Sales		Proposal			Saving in Silicon Valley Region			
Sales /year	Avg. Time / hr.	Total (hr.)	Avg. Time / hr.	Total (hr.)	Delta	$ Cost/ hr.	$ Total / hr.	Stores	Total ($)
2,739	0.11	301.29	0.06	164.34	136.95	$20.80	$2,848.56	8	$22,788.48

Table 2 shows the expected saving due the reduction on transits and the fastener's measurement station. This delta time of 136.95 hours represents 24 business days (3 weeks) and the increase of 9.4% of productivity per day.

Information and Communication Technology tools (ICT) and ERP (Enterprise Resource Planning) tools are used locally to complete or check daily sales operations as sales, consumption, customers, payments and returns. Unfortunately, ERP is not used to evaluate the customer's purchasing habits or patterns or for detecting markets based on commodities or to get ABC analysis to classify materials in value or rotation. Material level is not reliable because a constant counts program is not in place. This situation directly affects the cash customers purchase. If they do not find the product, they will abandon the store and look for other supply options. It is important to involve the employees with the use of ICT for operation planning, organizing, administration and delivery to guarantee transparency in information management. Correct stock levels are mandated by the system to effectively supply products for distribution. Communication with the customer takes place through a call, email or face to face. This communication is based on commercial activities (quotes, purchase orders or pick-up orders) but not concerning COVID-19. Customers did not receive an effective communication to know how the store will operate or how to place an order in advance. This situation generating issues as customers find them simultaneously waiting with other customers. Even though the branch displays guidelines for promoting mask use, some customers do not wear it well or prefer not to wear it. We propose investing the 23 hours saved in activities related to inventory levels review and reinforcing communication with the customer. We encourage the company invite customers to take care of themselves and prevent infections or to request their products or services on request through different channels: telephone, website, social networks, applications, chat, etc.

CONCLUDING COMMENTS

This investigation examines contagious risk, reduce the sale's time, productivity improvement and propose a safer environment practices for pick up orders in a retail store. The proposals described here are relevant for retail stores and supermarkets operations during COVID-19 and for future pandemics or public health crises. Despite having health guidelines at County and State levels, it is necessary to generate business specific models and written protocols under pandemic for every sector. Operations protocols have not been extensively studied and are significant for avoid pandemic spread. The companies also need implement internal audits to review compliance with standard work and health protocols. Tritan company has a lean supply chain channel. However, it needs to reinforce the system in the final element of the chain (retail stores) and reinforce the use of ICT and new electronic resources with their workforce. A plan at the branch level to develop potential customers and re-gain the customers who have stopped coming to the store should be put in place. Implementing promotions, discount vouchers, etc. might help the store gain the customer loyalty. Account customers represent a long-term investment for the survival of the branch, while cash customers allow the company to obtain cash and meet its short-term obligations. Management needs to allocate more resources for a safer sale protocol including customers with account, current cash customers and new prospects. The concept of standardized conditions is not a permanent situation and needs to constantly evolve.

The paper has limitations, the saving result would be more accurate if aspects as the cost of keeping

an employee in the company, as well as the cost of employment taxes and benefits (e.g., health insurance, 401(k)) were be included.

REFERENCES

Ana Zazo-Moratalla, & Alberto Álvarez-Agea. (2020). COVID-19 City: a new inequality in the urban space and time. Urbano, *Revista urbano* Vol. 23, No.41, Pag. 5 (4-9). https://ezproxy.upaep.mx:2107/10.22320/07183607.2020.23.41.00

Bahr, N. (2020). COVID 19 - Las empresas han pasar rápidamente de la intervención al plan de recuperación. *Gestión Práctica de Riesgos Laborales*, 180, 46–49.

Ballou, R. (2004). Logística: *Administración de la cadena de suministros.* (5 ed.). México: Pearson

Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*. 4(5), 460–471, doi:10.1038/s41562-020-0884-z, url to share this paper: sci-hub.do/10.1038/s41562-020-0884-z

Binsar Kristian P., F. A., & Panjaitan, H. (2014). Analysis of Customer Loyalty through Total Quality Service, Customer Relationship Management and Customer Satisfaction. *International Journal of Evaluation and Research in Education*, *3*(3), 142–151.

Garrido Moreno, A 2012, 'Estrategias CRM en empresas de servicios : Recomendaciones directivas para su implementación', *Dirección y organización: Revista de dirección, organización y administración de empresas*, no. 46, pp. 56–66.

González, C. (2020). ¡Dale RAPE al COVID! Capital Humano, 355, 111–115.

Iglesias, M. C. (2020). Claves para implantar eficazmente un Protocolo Seguro Covid-19. *Gestión Práctica de Riesgos Laborales*, 183, 21–24.

Marketing y Ventas. Estrategias (2020) La planificación a corto plazo, la creatividad y la cercanía: estrategias para reactivar tus ventas B2B. (Spanish). *Especial Directivos*, 1783, 86-89.

Maria Nicolaa, Zaid Alsafib, Catrin Sohrabic, Ahmed Kerwand, Ahmed Al-Jabird, Christos Iosifidisc, Maliha Aghae, Riaz Agha (2020), The socio-economic implications of the coronavirus pandemic (COVID-19): A review, *International Journal of Surgery,* Volume 78, June 2020, Pages 185-193.

Morens, Gregory David M., Folkers K., and Fauci Anthony S. (2009) What Is a Pandemic? *The journal of Infectious Diseases,* Volume 200, Issue 7, 1 October 2009, Pages 1018–1021.

Osterholm, M.T. (2005). Preparing for the Next Pandemic, *New England Journal of Medicine,* 352(18), 1839-1842.

Antràs, Pol, Stephen Redding, and Esteban Rossi-Hansberg. 2020. Globalization and Pandemics. *National Bureau of Economic Research Working Paper,* No. 27840.

PwC (2020, July). Rapidly Changing Behaviours In 2020 Are Accelerating Consumer Embrace of Digital, Health, and Sustainability Trends. *PR Newswire US,*

202007080000PR.NEWS.USPR.LN56172

Reichheld, F & Detrick, C 2003, 'Loyalty: a prescription for cutting costs', *Marketing Management*, vol. 12, no. 5

Stuart Emmett (2005)-Excellence in W M_ How to Minimise Costs and Maximise Value

Timothy D. Martin, & Jeffrey T. Bell. (2011). New Horizons in Standardized Work: Techniques for Manufacturing and Business Process Improvement. Productivity Press.

Vukani Cosmos Xulu, & Sachin Suknunan. (2020). Enterprise Resource Planning (ERP) systems success: impact of employees' perceptions and satisfaction on expected benefits in a manufacturing setting. *Problems and Perspectives in Management*, 18(2), 466–475.

Watkins, J. Preventing a covid-19 pandemic. BMJ 2020, 368, doi:10.1136/bmj.m810

Zoroja, J, Klopotan, I & Stjepić, A-M 2020, 'Quality of E-Commerce Practices in European Enterprises: Cluster Analysis Approach', Interdisciplinary Description of Complex Systems, no. 18(2-B), pp. 312–326,

Business Wire (2021), Global Department Stores & Other General Merchandise Stores Market Analysis 2020-2030: COVID- 19 Impact and Recovery, *ResearchAndMarkets.com.* https://search.ebscohost.com/login.aspx?direct=true&db=nsm&AN=6CU920010714202101040054 61&lang=es&site=eds-live.

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BIOGRAPHY

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FACTORS AFFECTING THE ADOPTION OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE

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ABSTRACT

This paper investigates how clinicians perceive the usefulness and the ease of use of Artificial Intelligence (AI) in healthcare. The paper aims to understand whether AI solutions are perceived to have a positive impact on patient care and the clinician' work, and which factors affects the adoption of AI in healthcare. The paper draws upon key concepts of TAM (Technology Acceptance Model), adopting an exploratory approach. Semi-structured interviews with 22 clinicians from the NHS (the National Health System, in the United Kingdom) reveal that they perceive the usefulness of AI for healthcare (better efficiency, healthcare quality, and diagnostic accuracy). However, respondents point out factors which affect the way they perceive the ease of use of AI, such as the difficulty to integrate the technology within healthcare systems (low compatibility) and to understand the technology (high complexity), concerns with ethical issues, and the need to have intensive training on digital skills.

INTRODUCTION

The diffusion of Artificial Intelligence (AI) across the many industries has been highlighted as one of the key pillars of the Fourth Industrial Revolution (Schwab, 2017). The expectation is that AI is going to affect most industries and professionals whose tasks may be automated totally or partially by intelligent technologies (McAfee and Brynjolfsson, 2017; Schwab, 2017). This research focuses on the healthcare sector, which is expected to be very affected by the diffusion of AI in the next years.

Industry and academic researchers have pointed the relevance of AI in the healthcare systems. In the United Kingdom, the Topol Review (2019) says AI is expected to transform the NHS (National Healthcare Services), bringing more efficiency, streamlining, and automating processes, improving diagnostic accuracy, and enabling the personalization of treatments. Intelligent technologies are substituting human expertise in areas that before were thought to be impossible or unlikely (OCDE, 2020; García et al., 2020; Topol Review, 2019; Yu et al., 2018; and Jiang et al., 2017). The interest on the impact of AI in the healthcare sector in the United Kingdom has increased substantially since the Topol Review (2019) has concluded that AI is a force for good in the improvement of patient care and service delivered. Following this call, this paper aims to investigate the perception of UK NHS clinicians about adopting AI solutions, answering the following two research questions:

To which extent UK NHS clinicians perceive the adoption of Artificial Intelligence in healthcare systems as a positive change to improve their own work and services for patients?

Which are the factors fostering and hindering the adoption of AI solutions in the UK NHS?

This paper is organized as follows. The second section introduces a literature review on AI applied to healthcare systems and a theoretical perspective which helps to investigate the research questions, based on TAM (Technology Acceptance Model) and the literature review on AI for healthcare. The third section introduces the data and methodology, based on semi-structured interviews, explaining the exploratory nature of the research. The fourth section presents results, reconnecting the discussion with the theory and previous research. The last section summarizes key findings and recommendations.

LITERATURE REVIEW

A literature review on the impact of AI in healthcare systems reveals that intelligent technologies perform some clinical tasks better, faster, and cheaper than highly trained experts in same functions. The association of big data related to healthcare and new AI techniques (machine learning and deep learning) have enabled automation in areas which were before restricted to human expertise (Yu et al., 2018). The applications of AI are expected to be useful in the virtual level, for instance, for better maintenance and understanding of patient records, diagnosis, and treatment, and in the physical level, for instance, with the use of robots in surgeries and intelligent prosthetics (Amisha et al., 2019).

Automated diagnoses, for instance, have allowed better allocation of resources to improve the quality of medical interventions (Panch et al., 2019; Topol Review, 2019). AI has huge potential for improving the quality and speed of imaging screening (e.g., cancer diagnosis), when the combination of human experts with automated pattern recognition improves the diagnosis (Rodriguez-Ruiz et al., 2018). In the long run, the association of big data with individual detailed records will enable AI to support the provision of personalized medicine (Dilsizian and Siegel., 2013).

AI can help healthcare professionals to free time for direct patient care (García et al., 2020). Scholars have also pointed out the relevance of AI for improving healthcare for societies with aging populations, when AI collects and analysis information from sensors (e.g., wearables) and transmit patient's information in real-time, providing care when and where it is needed (Yamada and Lopez, 2012; Topol Review, 2019). Similar reasoning is applied for AI solutions for chronically ill patients (Darwish and Hassanien, 2011).

However, to be successful, the introduction of AI should take into consideration broad aspects of healthcare systems, such as their social, economic, political, and commercial aspects (García et al., 2020; Panch et al., 2019). In the discussion of privacy, for instance, there are questions on how personal information is to be used and the degree to which data related to individuals is treated with the right level of security (OCDE, 2020; Vellido, 2019; Topol Review, 2019). The risk of data leakage increases when wireless technologies are used for data collection, for instance (Al Ameen et al., 2010).

Risks of low data quality or biases also affect the expectations about the use of AI in healthcare (García et al., 2020; OCDE, 2020). AI brings new expectations for quick and accurate diagnosis, which may increase the number of errors particularly because the increasing complexity of electronic health records may be overlooked (Dilsizian and Siegel., 2013). To reduce the error margin of AI applications for healthcare, it is recommended that the human experts check diagnosis and prescriptions; indeed, the results of AI solutions associated with human experts are the more accurate in the current state of technology development (Liew, 2018; Topol Review, 2019).

From a theoretical perspective, the literature review reveals a useful conceptual framework to explore the willingness of individuals for adopting new technology: the Technology Acceptance Model (TAM) (Davis, 1986). The model prescribes that the intention to adopt new technology depends on the way individuals perceive its usefulness (Perceived Usefulness – PU) and its ease of use (Perceived Ease of Use – PEOU) (Lee et al., 2003; Venkatesh et al., 2003). TAM has been used to understand all sorts of technology adoption, including innovations in the healthcare sector (Beldad and Hegner, 2017; Gagnon et al., 2012).

This research proposes to interpret the concepts of Perceived Usefulness and Perceived Ease of Use in accordance with seven constructs, which are framed in accordance with the relevance of topics in healthcare systems, as presented in Table 1 – the 7 Pillars of AI in Healthcare (7PAI) framework. The proposed 7PAI framework is based on TAM concepts of perceived usefulness and perceived ease of use and interpreted and complemented by the literature review on AI for healthcare systems.

Davis (1986) defines Perceived Usefulness as the extent to which an individual believes a technology would improve their job performance. This research investigates Perceived Usefulness through the constructs: (i) efficiency; (ii) healthcare quality; and (iii) diagnostic accuracy. Davis (1986) defines Perceived Ease of Use as the extent to which an individual expects that using a new technology will be free from effort. This research investigates Perceived Ease of Use through the constructs: (i) compatibility (how AI integrates with other systems); (ii) complexity (how difficulty is to understand AI solutions); (iii) training (required for adopting AI); and (iv) ethics (related to the use of AI). These seven constructs emerged from the literature on AI for healthcare (García et al., 2020; OCDE, 2020; Topol Review, 2019) and diffusion of innovation in healthcare settings (Dearing, 2010; Rogers, 2003).

Table 1: The 7 Pillars of AI in Healthcare (7PAI) Framework

Key Concepts	Constructs
Perceived Usefulness	Efficiency
	Healthcare quality
	Diagnostic accuracy
Perceived Ease of Use	Compatibility
	Complexity
	Training
	Ethics

Traditionally, TAM is a mathematical model used for test of hypotheses. This research though uses TAM conceptually only. As this research is exploratory in nature, it uses TAM key concepts – Perceived Usefulness and Perceived Ease of Use – to understand how clinicians perceive the usefulness and ease of use of AI solutions, aspects which affect their willingness to adopt such technologies.

DATA AND METHODOLOGY

This paper follows an interpretive perspective (Mason, 2002) to understand how UK NHS clinicians perceive the adoption of AI solutions in healthcare. The paper adopts an exploratory approach (Saunders, Lewis and Thornhill, 2009), considering the objective of understanding in depth the drivers and challenges for adopting AI solutions in the UK NHS. The paper is informed by theory (deductive approach), from the formulation of research questions to data coding and analysis, exploring a range of interpretations for each construct (Flick, 2002; Mason, 2002).

Primary data was obtained through semi-structured interviews (Flick, 2002; Pole and Lampard, 2002) with 22 UK NHS medical professionals (trauma surgeons, general practitioners, and medical educators). The sampling method has followed a purposive strategy (only clinicians capable of answering questions on AI solutions have been consulted) and convenience strategy (researchers have used their personal connections to get access to professionals) (Saunders, Lewis and Thornhill, 2009). The convenience strategy was instrumental to get access and time from health professionals in a year of pandemics (data was collected during June and July in the UK through online interviews).

The semi-structured interviews were based on the interview guide (open questions), focusing mainly on the proposed constructs presented in the 7PAI framework: Perceived Usefulness (efficiency, healthcare quality, and diagnostic accuracy); and Perceived Ease of Use (compatibility, complexity, training, and ethics). Interviews lasted 45-60 minutes. Respondents received the interview guide prior to meetings. Interviews were recorded with the consent of respondents and later transcribed and anonymized (Flick, 2002; Mason, 2002). Respondents have received a copy of their transcripts for approval, for improving research reliability (Silverman, 2006). The research validity emerges from the theory-driven formulation of questions, constructs, and coding systems, and the comparison and validation of findings with previous research and theory (Gray, 2016; Silverman, 2006). The coding was based on the 7PAI Framework, particularly looking for the concepts of Perceived Usefulness (efficiency, healthcare quality, and diagnostic accuracy), and Perceived Ease of Use (compatibility, complexity, training, and ethics).

RESULTS

This section presents the findings, following the structure of the 7PAI theoretical framework. First, it introduces results related to the Perceived Usefulness, considering the constructs efficiency, healthcare quality, and diagnostic accuracy. Second, it introduces the results related to Perceived Ease of Use, considering the constructs compatibility, complexity, training, and ethics.

Perceived Usefulness

The findings demonstrate that respondents have a positive perception of the usefulness of AI solutions for healthcare, confirming they expect AI to contribute to efficiency, healthcare quality, and diagnosis accuracy. Overall, the respondents have a positive view of the usefulness of AI solutions, with a few areas of concerns. These three aspects are discussed below.

In relation to *Efficiency*, respondents confirm their expectation that AI solutions improve efficiency in healthcare systems (90% of respondents). For instance, there is an expectation that AI may automate administrative tasks, streamlining health records across institutions (hospitals, trusts, GPs). In the frontline, AI solutions could automate the checking of vital signs and the administration of medication. Introducing AI to operate routine tasks would free time for health professionals to focus on patients (an aspect which is also relevant for the construct healthcare quality).

Covid-19 pandemics reinforced hopes that AI solutions will improve efficiency in GP settings. The expectation is that AI algorithms will be able to diagnose people remotely, avoiding the need to go physically to consultations. In addition, AI algorithms may indicate when a patient is more likely to need additional care. Respondents expect that AI solutions would reduce the number of patients in GPs, without affecting the quality of healthcare, freeing time for attending those patients who need most.

Some respondents (10%) are though cautious AI alone for diagnostic, arguing that critical decisions must be made by physicians. These respondents would recommend AI solutions for corroborating expert opinions, but not for substituting them. Respondents in this group highlight that some patients need empathy and compassion, pointing out that efficiency goals may not be a good idea in all settings. Contrasting both views, of those who are more positive about the impact of AI in efficiency and the others with a more cautious view, it emerges that there are issues of trust in the technology (thus the human expert must be there) and the limitations of technology when emotional intelligence is required (a topic which also emerge when discussion the healthcare quality). These may be barriers for scaling AI within the healthcare sector, as they limit the Perceived Usefulness of the solution.

The literature confirms these findings. AI-led automation could affect 35% of healthcare jobs, freeing time for professionals to direct care to patients (García et al., 2020) and increasing productivity (Pearson, 2017).

The Topol Review (2019) suggests AI is going to automate image recognition in radiology and pathology, freeing health professionals do deliver care. AI applications in the back office (e.g., scheduling and billing) could have an immediate impact in gaining efficiency (OCDE, 2020), as well as automating drug administration (Forlenza, 2019), and speeding up data processing (Ahuja, 2019; Amisha et al., 2019; Dilsizian and Siegel, 2013). However, it is also necessary to discuss AI principles and governance rules to increase trust in AI solutions (García et al., 2020; OCDE, 2020), keeping human experts on charge of decision making (Liew, 2018).

In relation to *Healthcare Quality,* there are two competing interpretations of the impact of AI solutions, both supported by previous research. The views demonstrate that practitioners are not yet clear about the place and scope for AI solutions, although the perceived positive impact is more pervasive (85%). On this fashion, some professionals expect that AI solutions are to improve the healthcare quality. For instance, the Babylon Health, an AI solution which uses NHS algorithms to provide rapid triage advice during the Covid-19 pandemics. This AI technology reduced the backlog in the first line of healthcare.

On the other hand, some respondents (15%) have a negative expectation that AI solutions are going to change the role of physicians, reducing the quality of patient care. For this group, the main concern is about decision making. Aware that AI algorithms are not yet perfect (if they are to be one day), and that AI algorithms are based on complex databases, these respondents believe human brains are still better prepared to match the domain knowledge with the needs of a patient. This negative interpretation is associated with the fear that AI solutions are going to be left alone to make decisions on diagnosis and treatments, which could increase the risk of mistakes for lacking human supervision.

The literature confirms both interpretations among healthcare professionals. Airon and Jhunjhunwala (2020) say that AI solutions may shift the healthcare system from the frontline of reaction to pre-emptive care, improving healthcare quality. Patients would be advised as earlier as the first warning indicators would point out the need for care, instead of later when health conditions have deteriorated (García et al., 2020; Topol Review, 2019). Healthcare systems could allow patients to be treated in clinics or their home, instead of hospitals, through using remote monitoring technology (Airon and Jhunjhunwala, 2020) and Natural Language Processing (García et al., 2020). Dilsizian and Siegel (2013) emphasise that AI may match big data with personalized data, reaching personalized medicine.

On the other hand, research links healthcare quality with human-centric emotional characteristics, such as empathy, experience, and instinct (Davenport and Kalakota, 2019). If the quality of healthcare is perceived by patients as being related to emotional interactions with professionals, AI solutions could not substitute humans in the frontline. There are also questions about the precision of AI decisions and the mechanisms to validate these decisions (García et al., 2020; OCDE, 2020; Topol Review, 2019).

In relation to *Diagnostic Accuracy*, respondents (75%) have high expectations that AI solutions are to improve the accuracy of diagnosis, although some others are more cautious about how much it can be improved. The more prevalent perception is that AI solutions are useful for improving detection, diagnosis and clinical decision making. For instance, in the Covid-19 pandemics, AI solutions were used for diagnosis. The consensus is that AI solutions should be used for supporting physicians, not for substituting professionals (similar idea expressed about healthcare quality). The question is whether AI solutions should be left alone for making decisions on diagnoses. When the matter is critical, respondents do not want to allow AI to make decisions alone. Their perspective is that in critical decisions, AI can be used to corroborate experts, instead of substituting them. The physician would keep the central role in diagnosing, with the benefit of having a second opinion (from AI).

The literature has examples in which AI algorithms are better and faster than humans in analyzing complex images for diagnosing diseases such as cancer (pattern recognition) (García et al., 2020; Dilsizian and

Siegel, 2013; Pearson, 2017; Watanabe et al., 2019). In the Covid-19 pandemics, AI solutions had a role to get accurate diagnosis (Mei et al., 2020). However, research also validates that better diagnostic accuracy is reached when AI solutions are combined with human expertise (Rodriguez-Ruiz et al., 2018; Watanabe et al., 2019). Dilsizian and Siegel (2013) concludes that if the system's recommendations are not validated by clinicians, a further scrutiny is necessary. AI cannot be left alone for making decisions on diagnosis and treatment (García et al., 2020; Liew, 2018).

Perceived Ease of Use

In this research, Perceived Ease of Use is assessed by investigating how respondents perceive the challenges for adopting AI solutions in the UK NHS healthcare system. The four constructs related to the concept are: compatibility, complexity, training, and ethics. These four aspects are discussed below.

In relation to *Compatibility*, respondents (95%) say that there are logistical challenges to integrate AI solutions to NHS technical platforms and processes, creating a compatibility problem for the adoption of AI. Respondents see obstacles in the level of *technical infrastructures* (either AI cannot be integrated, or it is difficult to integrate), *operations* (difficulties to integrate AI to current processes or to change processes to make integration possible), and *management structures* (lack of understanding on the role of AI vis-à-vis of professionals in information processing and decision making).

Respondents say that NHS technological platforms are fragmented, with a multiplicity of applications across trusts or units of delivery, which make the integration of new systems a coordination challenge. Operational practices vary significantly depending on the unit of delivery (hospitals, trusts, GPs etc.). There are still units which process documents and data manually, thus the difficulty in adopting AI solutions extensively at national level, which would benefit from gaining scale and access to data. It is more likely that the adoption of AI will follow the usual case-by-case approach.

The difficulty of adding new technological layers to NHS platforms is recognized by the literature (Topol Review, 2020). Castle-Clarke (2018) reports that data on diagnosis and treatments and administrative data on resources usage are not integrated in NHS systems. This lack of integration has been associated with poor service in primary social and healthcare services. AI cannot help much if information is not accessible in electronic and integrated format (García et al., 2020; OCDE, 2020). The Topol Review (2019) identifies the need to have better integration of data across the NHS for improving the outcomes of using AI. García et al. (2020) also discuss data integration, availability, and governance as success factors for the diffusion of AI in healthcare systems.

In relation to *Complexity*, the adoption of AI solutions depends on how healthcare professionals understand its complexity. The fact that AI is considered complex to be understood creates a barrier for its adoption, as professionals perceive the technology as not being easy to use. Respondents confirmed these concerns, with many perceiving AI solutions as having high technical complexities (50% of respondents), which are not understood either by healthcare professionals or by managers and directors in healthcare systems.

Despite recognizing AI complexities, other respondents (50%) consider that one does not need to understand the AI algorithm to perceive its advantage and ease of use. These respondents have a pragmatic approach about how to cope with AI complexity: they focus on the interface and results instead of on algorithms. However, the question remains: how may health professionals trust AI recommendations if they do not understand of the AI algorithm? In this line, these respondents question how it would be possible for the medical professional to explain a diagnosis or treatment recommendation done by AI solutions to patients if they are not able to understand how the algorithm works. In practice, patient groups could not accept AI diagnosis if they do not trust doctors are agreeing and understanding what should be done.

The literature confirms that the use of AI solutions for diagnosing may affect the level of trust between physicians and patients (La Rosa and Dank, 2018). When the AI solution reduces the relevance of doctors in the decision-making process, the impact is higher. The Topol Review (2019) acknowledges healthcare professionals face challenges to understand the AI complexity and suggest more training, for instance, to understand how AI can be used (see section below). García et al. (2020) highlights that a substantial number of healthcare professionals have never been involved in the development or deployment of AI technologies.

In relation to *Training*, it comes as no surprise that all respondents expect that AI adoption depends on extensive training for physicians. The perception of the complexity of the technology and the lack of understanding demonstrate that AI solutions are not easy to use without proper training. For respondents, training will make physicians more technologically savvy. Some suggest that medical teaching should incorporate training on AI solutions, enabling doctors to understand the actual potential of the technology. Only then it would be possible to scale up the adoption of AI in the NHS.

The literature confirms this interpretation. The Topol Review (2019) suggests the healthcare workforce must be trained to gain higher digital literacy. The report says that AI is to be used to augment the skills of the NHS workforce, which would require staff to understand data validity and accuracy. Those better trained would be able not only to identify the best AI solutions but also to champion their benefits to colleagues. Other reports reached same conclusions that healthcare professionals need better skills on AI machine learning and data science; however, they also acknowledge healthcare professionals are already under huge pressure to update their knowledge about their core medical practices and other digital skills (García et al., 2020; OCDE, 2020). Ho Park et al. (2019) suggest clinical training should prepare practitioners to be competent users of AI, but this requirement puts pressure on medical schools, as technology changes fast, making training obsolete quickly.

In relation to *Ethics,* respondents highlighted two main ethical concerns which may affect the adoption of AI solutions in healthcare settings, with divergent opinions on both. Concerns on ethics related to AI in healthcare are highlighted by 65% of respondents. There is a risk of AI having biases (depending on the data used by systems). Respondents are concerned that AI could make decisions based on factors such as race, gender, and socio-economic backgrounds, which would result in inequality of care at the point of delivery. Data privacy is also a matter of concern, as hackers may get access to systems.

The literature confirms that ethical concerns related to the risk of AI biases is an obstacle for the adoption of AI solutions in healthcare systems (OCDE, 2020; Reddy, 2019). Reddy (2019) highlights that algorithms may use data that has biases which are to affect the way AI make recommendations. OCDE (2020) emphasizes that AI models may reproduce mistakes, biases and stereotypes embedded in their databases. The literature confirms that patient's data and privacy are important considerations, as the risk of having AI systems hacked inhibits the adoption of AI solutions (Reddy, 2019; Price II and Cohen, 2019). The Topol Review (2019) emphasizes that healthcare professionals should be trained to understand the ethics in AI solutions to allow a better use of technology. The report highlights the relevance of having robust data governance, emphasizing not only the aspect of data privacy but also of data quality, as poor data is to conduct to poor AI-lead decision making.

CONCLUDING COMMENTS

This paper aims to understand whether AI solutions are perceived to have a positive impact on healthcare systems, and which factors foster and hinder the adoption of AI technologies in healthcare. To reach these objectives, this research proposes to answer two research questions:

To which extent UK NHS clinicians perceive the adoption of Artificial Intelligence in healthcare systems as a positive change to improve their own work and services for patients?

Which are the factors fostering and hindering the adoption of AI solutions in the UK NHS?

For answering these questions, this research has adopted an interpretive perspective. 22 NHS clinicians have been interviewed (semi-structured interviews), for collecting their opinion on the adoption of AI in healthcare systems. The interviews were transcribed and coded, using the proposed 7PAI conceptual framework. Results have been organized following the framework structure and compared with the literature review. The key findings are summarized below, by research question.

Question1: To which extent UK NHS clinicians perceive the adoption of Artificial Intelligence in healthcare systems as a positive change to improve their own work and services for patients?

Respondents confirm the adoption of AI in healthcare systems is perceived as a positive change, from the perspective of perceived usefulness. AI solutions are associated with improving efficiency, healthcare quality, and diagnostic accuracy. Respondents focused on the quality of services for patients, but there are also insights about the positive impact on their own work, such as the automation of routine and administrative tasks, freeing time for more sophisticated work and interaction with patients. Respondents emphasize the interaction between AI solutions and clinicians to provide better diagnosis and treatment, acknowledging that technology may improve the quality of their work. However, AI solutions should not be left alone: human experts should confirm AI recommendations.

Question 2: Which are the factors fostering and hindering the adoption of AI solutions in the UK NHS?

Overall, respondents emphasized the difficulties of adopting AI systems. Although the system is perceived as useful, there is not a similar perception in relation to the ease of use. Respondents say there are problems of compatibility to implement AI solutions across the NHS, because of the technical and operational fragmentation of its systems. The complexity of AI systems hinders the understanding of managers, clinicians, and patients, and compromises the trust between patients and doctors. It comes without a surprise that respondents identify extensive training as a way forward to overcome this difficulty in understanding AI solutions, although it is difficult to provide training in a faster moving field. Finally, respondents identify the ethical challenges which make AI solutions less easy to use, such as the risks of having data licking and biased algorithms making decisions on patients.

Considering these answers, this paper points out implications for managers and professionals. Although NHS clinicians identify the usefulness of the AI solutions, the actual adoption of AI will require more work on the grounds of making it to be perceived as easy to use. The NHS would need to invest in training and making technology available in a trial fashion to gain more adopters among clinicians. Particular attention is necessary for clinicians and patients to not lose trust in AI solutions, properly integrating technology with human-centered processes (clinicians to use systems instead of being substituted by systems) and patient-centered care (with clinicians interfacing the care with patients, not automated solutions). Considering these challenges, this research proposes that more training and phased projects which gradually embed AI solutions into NHS systems could be the best approaches to foster AI adoption. These approaches would allow clinicians and managers to better understand the technology, reducing the perceived complexity of systems. It would allow people to verify when AI solutions should be used, and how to integrate technology in their practice (enhancing compatibility). It also would allow a gradual evaluation of benefits and advantages of AI solutions, which would create a virtuous circle of more trained and informed professionals requiring and implementing more AI solutions, and training those colleagues who are adopting the technology later.

This paper has some limitations. The main limitation is the limited number of interviews (22), which could be improved. Additionally, the paper is grounded on the proposed 7PAI framework. With more data, other theories could be tried, and the framework could become more complete. Future research may investigate

these findings in depth. The sample of 22 interviews can be expanded for getting a broader understanding of the phenomenon. There must be differences in relation to the current level of knowledge individuals have of AI solutions, which may have influenced responses. Also, the perspectives discussed in the paper are from UK NHS clinicians, who have the privilege of having plenty of resources in a developed country. The perspective may be different in regions which are poor of doctors and healthcare resources. This alternative perspective deserves further investigation.

REFERENCES

Ahuja, A.S. (2019) "The impact of artificial intelligence in medicine on the future role of the physician," *PeerJ*, vol. 7, p. e7702.

Airon, A. and A. Jhunjuhnwala (2020) "Employing AI to Improve Healthcare Delivery," *ORF Issue Brief*, Issue Number 385, July 2020. Observer Research Foundation.

Al Ameen, M. (2012) "Security and Privacy Issues in Wireless Sensor Networks for Healthcare Applications," *Journal of Medical Systems*, vol. 36, p. 93–101.

Amisha, P. Malik, M. Pathania and N.K. Rathaur (2019) "Overview of artificial intelligence in medicine," *Journal of Family Medicine and Primary Care*, vol. 8(7), p. 2328-2331.

Beldad, A.D. and S.M. Hegner (2017) "Expanding the Technology Acceptance Model with the Inclusion of Trust, Social Influence, and Health Valuation to Determine the Predictors of German Users' Willingness to Continue Using a Fitness App: A Structural Equation Modelling Approach," *International Journal of Human–Computer Interaction*, vol. 34(9), p. 882-893.

Castle-Clarke, S. (2018) "What will new technology mean for the NHS and its patients? Four big technological trends," The Health Foundation, The Institute for Fiscal Studies, The King's Fund, and The Nuffield Trust. Accessed on 15/08/2020: https://www.kingsfund.org.uk/sites/default/files/2018-06/NHS_at_70_what_will_new_technology_mean_for_the_NHS_0.pdf.

Darwish, A. and A.E. Hassanien (2011) "Wearable and implantable wireless sensor network solutions for healthcare monitoring," *Sensors* (Basel, Switzerland), vol. 11(6), p. 5561-95.

Davenport, T. and R. Kalakota (2019) "The potential for artificial intelligence in healthcare," *Future Healthcare Journal*, vol. 6(2), p. 94-98.

Davis, F. (1986) "A Technology Acceptance Model for Empirically Testing New End-User Information Systems," *MIT Sloane School of Management*. PhD thesis. Last accessed on 22/11/2020: https://dspace.mit.edu/handle/1721.1/15192

Dearing, J.W. (2010) "Applying Diffusion of Innovation Theory to Intervention Development," *Research on Social Work Practice*, vol. 19(5), p. 503-518.

Dilsizian, S.E and E.L. Siegel (2013) "Artificial Intelligence in Medicine and Cardiac Imaging: Harnessing Big Data and Advanced Computing to Provide Personalized Medical Diagnosis and Treatment," *Current Cardiology Reports*, vol. 16(1), p. 441.

Flick, U. (2002) An Introduction to Qualitative Research (2nd edition), Thousand Oaks; London; New Delhi: Sage Publications.

Forlenza, G.P. (2019) "Use of Artificial Intelligence to Improve Diabetes Outcomes in Patients Using Multiple Daily Injections Therapy," *Diabetes Technology & Therapeutics*, vol. 21(S2). No page. Last accessed on 15/02/2021: https://www.liebertpub.com/doi/10.1089/dia.2019.0077

Gagnon, M.P., E. Orruño, J. Asua, A.B. Abdeljelil and J. Emparanzaet (2012) "Using a modified technology acceptance model to evaluate healthcare professionals' adoption of a new telemonitoring system," *Telemedicine Journal and E-Health*, vol. 18(1), p. 54-9.

García, J.F., A. Spatharou, S. Hieronimus, J-P Beck and J. Jenkins (2020) "Transforming Healthcare with AI – The impact on the Workforce and Organisations," *EIT Health and McKinsey & Company*. Last accessed on 22/11/2020: https://eithealth.eu/wp-content/uploads/2020/03/EIT-Health-and-McKinsey_Transforming-Healthcare-with-AI.pdf

Gray, D. E. (2016) Doing Research in the Business World. Los Angeles, London: Sage Publications.

Ho Park, S., K-H. Do, S. Kim, J.H. Park and Y-S. Lim (2019) "What should medical students know about artificial intelligence in medicine?" *Journal for Education Evaluation for Health Professions*, vol. 16, p. 18.

Jiang, F., Y. Jiang, H. Zhi, Y. Dong, H. Li, S. Ma, Y. Wang, Q. Dong, H. Shen and Y. Wang (2017) "Artificial intelligence in healthcare: past, present and future," *Stroke and Vascular Neurology*, vol. 2(4), p. 230-243.

La Rosa, E. and D. Danks (2018) "Impacts on Trust of Healthcare AI", *Proceeding of the 2018 AAAI/ACM Conference on AI, Ethics and Society*, December 2018, p. 210-215.

Lee, Y., K.A. Kozar and K.R.T. Larsen (2003) "The Technology Acceptance Model: Past, Present and Future," *Communications of the Association for Information Systems*, vol. 12, Article 50 (no page number). Last accessed on 15/02/2021: https://aisel.aisnet.org/cais/vol12/iss1/50/

Liew, C. (2018) "The future of radiology augmented with Artificial Intelligence: a strategy for success," *European Journal of Radiology*, vol. 102, p. 152–156.

Mason, J. (2002) Qualitative Researching (2nd ed.). London; Sage Publications.

McAfee, A. and E. Brynjolfsson (2017) Machine, Platform, Crowd: Harnessing Our Digital Future. New York, London: W.W. Norton and Company.

Mei, X., H-C. Lee […] and Y. Yang (2020) "Artificial intelligence–enabled rapid diagnosis of patients with COVID-19," *Nature Medicine*, vol. 26, p. 1224-1228.

OCDE (2020) "Trustworthy AI in Health," *Background paper for the G20 AI Dialogue, Digital Economy Task Force*. Saudi Arabia 1-2 April 2020. Last accessed on 22/11/2020: http://www.oecd.org/health/trustworthy-artificial-intelligence-in-health.pdf

Panch, T., H. Mattie and L.A. Celi (2019) "The 'inconvenient truth' about AI in healthcare," *Digital Medicine*, vol. 2, article 77 (no page number). Last accessed on 15/02/2021: https://www.nature.com/articles/s41746-019-0155-4

Pearson, D. (2017) "Artificial Intelligence in radiology: the game-changer on everyone's mind," *Radiology Business*. Last Accessed on 22/11/2020:

https://www.radiologybusiness.com/topics/technology-management/artificial-intelligence-radiology-game-changer-everyones-mind

Pole, C and R. Lampard (2002) Practical Social Investigation- Qualitative and Quantitative Methods in Social Research. Harlow: Pearson Education.

Price II, W.N. and I.G. Cohen (2019) "Privacy in the age of medical big data." *Nature Medicine*, vol. 25(1), p. 37-43.

Reddy, S., S. Allan, S. Coghlan and P. Cooper (2020) "A governance model for the application of AI in health care," *Journal of the American Medical Informatics Association*, vol. 27(3), p. 1-7.

Rodriguez-Ruiz, A., E. Krupinski, J-J. Mordang, K. Schilling, S.H. Heywang-Kobrunner, I. Sechopoulos and R.M. Mann (2018) "Detection of Breast Cancer with Mammography: Effect of an Artificial Intelligence Support System," *Radiology*, vol. 290(2) (no page). Last accessed on 15th February 2021: https://pubs.rsna.org/doi/full/10.1148/radiol.2018181371

Rogers, E.M. (2003) Diffusion of Innovations. 5th ed. New York: Free Press.

Saunders, M., P. Lewis and A. Thornhill (2009) Research Methods for Business Students. 5th ed. Harlow: Pearson Education Limited.

Schwab, K. (2017) The Fourth Industrial Revolution. Geneva: World Economic Forum.

Silverman, D. (2006) Interpreting Qualitative Data – Methods for Analyzing Talk, Text and Interaction. London, Thousand Oaks, New Delhi: Sage Publications.

Topol Review (2019) Preparing the healthcare workforce to deliver the digital future. Last accessed on 13/08/2020: https://topol.hee.nhs.uk/wp-content/uploads/HEE-Topol-Review-2019.pdf

Venkatesh, V., M.G. Morris, G.B. Davis and F.D. Davis (2003) "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, vol. 27(3), p. 425-478.

Vellido, A. (2019) "Societal Issues Concerning the Application of Artificial Intelligence in Medicine," *Kidney Diseases*, vol. 5(1): p. 11-17.

Watanabe, A.T. (2019) "Improved Cancer Detection Using Artificial Intelligence: a Retrospective Evaluation of Missed Cancers on Mammography," *Journal of Digital Imaging*, vol. 32, p. 625-637.

Yamada, I. and G. Lopez (2012) "Wearable sensing systems for healthcare monitoring," *Symposium on VLSI technology*. Last accessed on 22/11/2020: https://ieeexplore.ieee.org/document/6242435

Yu, K.H., A.L. Beam and I.S. Kohane (2018) "Artificial Intelligence in healthcare," *Nature Biomedical Engineering*, vol. 2, p. 719-731.

BIOGRAPHY

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SKILL, INFRASTRUCTURE AND HUMAN CAPITAL NEEDED FOR POST-COVID-19 ECONOMIC RECOVERY: PERSPECTIVE FROM BUSINESS AND ECONOMIC STUDENTS

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ABSTRACT

In this study, we examine which areas business and economics students consider relevant for a successful post COVID-19 recovery for a southeastern state in Mexico. For the analysis, we consider variables perceived as critical for a successful recovery including competencies (skills) needed for an economic recovery after the COVID-19 pandemic, training requirements necessary to be competitive, available infrastructure and human capital. We conducted a non-experimental trans-sectional study using data from a survey of 1,530 business and economic college students. The results show that students consider they do not have the infrastructure and human capital to face economic recovery post-pandemic. The study concludes that investment of higher education institutions should focus on infrastructure, training, and skill development in areas such digital and technology for a successful economic and social recovery after the pandemic.

KEYWORDS: COVID-19, Higher Education, Economic-Administrative, Recovery

INTRODUCTION

Wuhan, capital of Hubei, became the epicenter of the global pandemic, caused by a new virus, the SARS-CoV-2, commonly known as COVID-19. COVID-19 causes severe acute respiratory illness and other issues (Sharma et al., 2020). Spread of the virus was exponential, mainly due to globalization. The world's population has been increasingly concentrated on large cities (Tisdell, 2020). The effects of this pandemic on health, employment and, in general, the world economy has been compared by authors such as Varsi-Rospigliosi et al., (2020) as the third world war. However, we do not have an enemy with defined nationality. It is invisible and, thanks to its available spread, has not stopped at any border. The Economic Commission for Latin America and the Caribbean (2020) consider COVID-19 the worst economic and social crisis in a decade, and its effects on employment, poverty and inequality will require structural changes in the organization of production that are already underway and expected to accelerate.

At the end of 2020, several countries managed to develop health strategies in two areas: 1) treatments to combat the virus and 2) vaccines with emergency health authorization, which allow countries to plan a recovery of world economies for first quarter of 2021 (Gómez - Tejeda et al., 2020; World Health Organization, 2020). For higher education institutions around the world, the challenges have focused on

generating strategies to maintain high academic standards, which are essential for higher education institution to produce quality research and teaching results (Gamage et al., 2020).

The need for state specific information motived the Council of Science and Technology of the State of Tabasco (Consejo de Ciencia y Tecnología del Estado de Tabasco, CCYTET) to commission, in collaboration the with researchers from the Universidad Juárez Autónoma de Tabasco (UJAT), the design and implementation of a survey aimed at higher education undergraduate and graduate students at research centers in the state of Tabasco. As a result, a participatory diagnosis POST *COVID-19* in Tabasco project was developed. The survey includes quantitative and qualitative elements and various demographic variables that allowed the classification of the population (Sánchez, Magaña, Aquino, Gómez, Cornelio, Silva, Palmeros, Aguilar, Rodríguez and Corona, 2020). The CCYTET and the UJAT consider students as relevant actors whose input regarding economic recovery. This is consistent with studies and projects developed by other countries (Abisha Meji & Dennison, 2020; Aucejo, French, Ugalde Araya, & Zafar, 2020; Cohen et al., 2020). These studies provide important results that support the development of strategies and proposals for accelerating economic recovery.

In this study, we focused on determining elements that undergraduate and graduate students in administrative economic science disciplines perceive as necessary for a post-pandemic recovery phase in the state of Tabasco, located in southeastern Mexico. This area was impacted by severe flooding during the pandemic, leaving the state's economy even more vulnerable (Rosales, 2020, Osorio, 2020). Economic recovery after the pandemic is a priority in the sustainable development objectives established by the United Nations (United Nations, 2017, 2020to, 2020b). This research is aimed at generating relevant and valid information according to local and regional needs. This information will serve as a basis for the generation of concrete actions for economic reactivation and the recovery of formal and informal employment. The rest of this research is organized as follows. The literature review section describes literature associated with economic impacts and strategies for economic and social recovery after the pandemic. The methodology section provides the research design, sample size, data collection and analysis. Next, the results section provides a comprehensive analysis of the results. Finally, the conclusions section offers suggestions and future lines of research.

LITERATURE REVIEW

The term Competence, which has not been an easy construct to define, involves elements such as conception of the mode of production and transmission of knowledge, the link between education and society, the mission and values of the educational system, teaching practices and evaluation schemes of both teachers and student performance (Pablo Beneitone et al., 2007). In terms of work efficiency Chouhan and Srivastava, (2014) point out that competencies include the collection of success factors necessary to achieve important results in a specific job or job role in a particular organization, and this can refer to competencies, intellectual, business, social and emotional.

The model focused on competencies related to teleworking, financial management and entrepreneurship, which have been established as keys to the economic recovery for international organizations such as Pan American Health Organization and World Health Organization (ECLAC-UNESCO), (ECLAC-UNESCO, 2020; Pagés et al., 2020; Pan American Health Organization & World Health Organization, 2020; UNESCO, 2020).

With regard to entrepreneurship, Patel and Rietveld, (2020) argue that entrepreneurs are used to facing unpredictable environments, but the pandemic has generated greater uncertainty than what micro and small business owners can handle. This is largely because in Mexico alone, the National Institute of Statistics and Geography (INEGI, 2020a, 2020b), concluded that 59.6% of companies reported that technical shutdown or temporary closure significantly affected their productive activity. Globally, the most optimistic

predictions of economic growth have been a decline of at least 1% (Economic Commission for Latin America and the Caribbean, 2020).

For decades, working from home has been promoted as a way to increase workday efficiency (Zhang et al., 2020). According to Rocha and Amador, (2018) the term teleworking is associated with remote work through information and communication technologies (ICT). In the United States, the use of the term telecommuting is more frequent, while in Europe the use of teleworking is more common. The first term emphasizes the displacement between the workplace and the place where work is performed, being "the office" replaced by the use of ICT. The second focuses on the activities carried out by technological means. Both terms, however, refer to the same employment arrangement where work activities are carried out remotely with the use of technology and without the need to transfer the worker to the place where the results should be presented. The term "home office" is also frequently used; however, it refers to a specific category within the broader context of teleworking that deals with the specificity of being carried out in the worker's home.

In the context of COVID-19, one of the main recommended strategies for economic reactivation was teleworking. However, companies and governments were not prepared for its implementation because of lack of competencies and legal issues (e.g. many labor contracts don't include teleworking). However, during the pandemic is unlikely that employees object to teleworking (Belzunegui-Eraso & Erro-Garcés, 2020). Despite, multiple obstacles that represented the adoption of this form of work, having the necessary skills is essential for efficient performance ,as well as the development of a legal frameworks to protect the worker (Zhang et al, 2020).

With regard to Higher Education, the COVID-19 outbreak fundamentally altered its global landscape in 2020. The pandemic forced Institution of Higher Education to rethink the use technology platforms, its capabilities and usefulness for online learning. This has impacted many areas within the higher education sector. Therefore, it is clear that online training is required as an effective and easy-to-achieve short-term strategy (Gamage et al., 2020).

To support economic and social recovery after the pandemic, several international organizations and authors have studied the phenomenon of teaching in the context of the pandemic. These authors point to online education and teleworking as indispensable elements in the recovery strategy. Thus, proficiency in information and communication technologies (ICT) became essential competences during this period. Therefore, the requirements of training, infrastructure and human capital are focused on the achievement of these competencies to guarantee the required quality standards and contribute to gradual recovery of regional, national and global economies (Gamage et. Al., 2020)

METHODOLOGY

The study follows an experimental, descriptive, cross-sectional design to analyze statistical results. The study involved 1,536 undergraduate and graduate students from different disciplines in the economic and administrative area of seven higher education institutions in the state of Tabasco in Mexico. The study covered all semesters of the different undergraduate and graduate programs.

Three variables from the Magaña and Aguilar model (2020, 2021) were used. These variables examine student perspectives of the effects on productive activity and formal and informal employment. The variables considered were competencies (skills) needed to face the economic recovery process after the COVID-19 pandemic (CPC), training requirements perceived as necessary to be competitive during the recovery (RCAP), and the infrastructure and human capital that is available (IYCH). Reliability values were (CPC α=0.84; RCAP $\alpha = 0.70$; IYCH $\alpha = 0.80$) indicating each measure was acceptable (Milton, 2010).

With respect to sampling adequacy, the Kaiser-Meyer Olkin statistical test and the Bartlet sphericity test (KMO= 0.83, $\chi 2$= 7438.45, gl = 66, p <.001) indicate that an exploratory factor analysis is acceptable (Lloret-Segura et al., 2014). The results are grouped into three factors that explain 54.47% of the variance. All items have factorial loads greater than 0.42, grouped according to the proposed structure (Williams et al., 2010).

We used data results from the online survey "Participatory Diagnosis Post COVID-19 in Tabasco" (Sánchez et al, 2020). For the development of the survey, the consent all participation Higher Education Institutions and Research Centers was requested through the Science and Technology Council. Subsequently, directors of each organization were asked to participate voluntarily and informedly to administer the online instruments to the students through institutional platforms. The students were informed of the purpose of the study, and through the teachers and authorities were invited to participate in the volunteer study guaranteeing confidentiality of the data collected (Magaña, and Aguilar, 2020, 2021). The survey was conducted during June 2020. Descriptive statistics, t-test and ANOVA were used to determine the analyze the data.

RESULTS

Descriptive

The study involved 1,530 students including 39.4% male and 60.6% female. The average age is 21.46 years. According to its distribution by academic level, 92.1% are undergraduate, 7% postgraduate and 0.5% did not indicate a degree so we eliminate these data from the analysis. Of this population one 23.7% work and 40.4% have a scholarship.

With regard to the variables considered, Table 1 presents the descriptive statistics where the highest mean is the perceived level of competency needed to face the post-pandemic recovery, and the lowest is the perceived need for infrastructure and human capital to face the economic recovery.

Table 1: Descriptive Values of the Variables (Scale 1-5)

Variable	Mean	DE	Minimal	Maximum	Asymmetry	Curtosis
Skills to cope with the post-COVID-19 economic recovery	4.32	0.75	1.00	5.00	-1.33	2.10
Training Requirements for Competitiveness	3.59	0.82	1.00	5.00	-0.26	-0.07
Infrastructure and Human Capital	3.28	1.02	1.00	5.00	-0.08	-0.39

Table 1 presents the main descriptive Statistics for the sample size using a 1-5 scale.

Mean Difference

When comparing difference in mean by gender, we find that only infrastructure and human capital are statistically significant, where male shows the highest levels (see Table 2). However, it is important to note that 13 percent of the differences in perception is explained by gender.

Table 2: Mean Difference for Gender-Related Variables

Variables	Men		Women		t	p	Cohen's d
	M	SD	M	SD			
Skills to cope with the post-COVID-19 economic recovery	4.33	0.74	4.31	0.74	0.37	0.707	0.04
Training Requirements for Competitiveness	3.62	0.82	3.56	0.81	1.43	0.152	0.07
Infrastructure and Human Capital	3.36	1.02	3.22	1.01	2.57	0.010*	0.13

M= Mean, SD= Standard Deviation, p=significance, Cohen's d = effect size. N=1.536. Significant level at p < 0.05*, p < 0.01**, p <0.001***.
Data analyzed using IBM SPSS Statistics Software for Windows. Version 24.0.

Table 3 presents the differences in mean based on academic level (14 surveys were discarded due to incomplete data). Results shows that only two variables present statistically significant differences with greater emphasis at the graduate level. The difference is larger. Most notable is the difference with respect to competencies needed to face the economic recovery, 30 percent of which is explained by the academic level of the student.

Table 3: Difference in Mean Base on Academic Degree

Variables	Undergraduate		Post-graduate		t	p	Cohen's d
	M	SD	M	SD			
Skills to cope with the post-COVID-19 economic recovery	4.30	0.75	4.51	0.61	-2.77	0.006**	-0.30
Training Requirements for Competitiveness	3.57	0.80	3.79	0.91	-2.70	0.007**	-0.25
Infrastructure and Human Capital	3.27	1.01	3.27	1.14	.05	0.957	0.00

M= Mean, SD= Standard Deviation, P=Significance, Cohen's d = effect size. N=1,522. Significant level at $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. Data analyzed using IBM SPSS Statistics Software for Windows, Version 24.0.

For students who work and study at the same time, we find differences between perceived training requirements and infrastructure and human capital. We find the statistical difference is greater for those who work and go to school at the same time. Even though, the overall result is relatively low, 25% of the differences in terms of the training requirements perceived as necessary, can be explained by the fact that student also work (Table 4).

Table 4: Difference in Means for the Variables of the Question Do You Work?

Variables	Yes		No		t	p	Cohen' d
	M	SD	M	SD			
Skills to cope with the post-COVID-19 economic recovery	4.38	.77	4.30	0.73	1.84	0.065	0.10
Training Requirements for Competitiveness	3.75	.83	3.54	0.80	4.43	0.000***	0.25
Infrastructure and Human Capital	3.41	1.04	3.23	1.01	3.03	0.002**	0.17

M= Mean, SD= Standard Deviation, p=significance, Cohen's d = effect size=1.536, significant level at $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. Data analyzed using IBM SPSS Statistics Software for Windows. Version 24.0.

With regard to whether they receive financial support through a scholarship, we only find statistically significant the variable competences perceived as necessary to face the economic recovery after the COVID-19 pandemic. Those who are scholarship recipients have greater degree of agreement. Again, the size effect is low and can only explain 13% of the differences of opinion, because they receive financial support through a scholarship (Table 5).

Table 5: Difference in Means for the Question Do you have a Scholarship?

Variables	Yes		No		t	p	Cohen's d
	M	SD	M	SD			
Skills to cope with the post-COVID-19 economic recovery	4.38	0.68	4.28	.78	2.69	.007**	0.13
Training Requirements for Competitiveness	3.60	0.79	3.58	.83	0.60	0.547	0.02
Infrastructure and Human Capital	3.28	1.02	3.26	1.02	0.33	0.738	0.02

M= Mean, SD= Standard Deviation, P=Significance, Cohen's d = effect size. N=1.536, Significant level at a $p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$. Data obtained through IBM SPSS Statistics Software for Windows. Version 24.0.

We use a non-dichotomous question to assess age. Table 6 presents the comparisons for five age ranges. We find older respondents are more aware of the need to have the necessary skills and training requirements to be competitive after the pandemic. In terms of training requirements, there are differences in practically all age range except for respondents between 27 and 30 years old. Although, there are significant differences in skills and training requirements, in both cases the size of the effect is too small to be considered

significant. The only variable that did not present differences was the perception about the infrastructure and human capital necessary for the aforementioned period.

Table 6: Post Hoc Analysis, ANOVA and Strength of Association of Model Variables in Relation to Age Range

Variable	a) 18 a 22 Years		(b) 23-26 Years		(c) 27 to 30 Years		(d) 31-34 Years		(e) 35 Years and Older		f	Post Hoc	h²
	M	SD	M	SD	M	SD	M	SD	M	SD			
Skills to cope with the post-COVID-19 economic recovery	4.28	0.75	4.24	0.71	4.46	0.73	4.58	0.59	4.74	0.41	6.44***	a<e	0.02
Training Requirements for Competitiveness	3.51	0.80	3.86	0.79	3.80	0.69	4.00	0.74	4.18	0.75	16.74***	(a<(b)< (d)<e	0.04
Infrastructure and Human Capital	3.27	0.99	3.28	1.10	3.30	1.08	3.25	1.29	3.38	1.11	0.13	-	0.00

N= 1,536; *p<.05, **p<.01, ***p<.001. a) 18 to 22 years, b) 23 to 26 years, c) 27 to 30 years, d) 31 to 34 years, e) 35 years or more. η²=square partial Eta

To assess the sample socioeconomic level, we use the Mexican Association of Market intelligence and Opinion Agencies methodology (AMAI, 2018). AMAI questions related to socioeconomic level were included in the online questionnaire. There were only differences related to the variable training requirements. Individuals with higher socioeconomic status reported the highest mean, but again with a very small effect size.

Table7: Post Hoc Analysis, ANOVA and Strength of Association of the Variables in Relation to Socioeconomic Level

Variable	(a) "E" Low		(b) "D" Under		(c) "D+" Medium-low		d) "average C-"		(e) medium-high "C"		f) "C+" high		f	Post Hoc	h²
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
CPC	4.27	0.76	4.37	0.73	4.28	0.72	4.28	0.80	4.41	0.68	4.20	0.79	1.69	-	0.01
RCAP	3.30	0.97	3.49	0.82	3.57	0.78	3.60	0.81	3.77	0.80	3.92	0.75	5.32***	a<b<c<d<e<f	0.02
IYCH	3.18	1.30	3.37	1.01	3.27	0.96	3.24	1.02	3.18	1.08	3.14	0.99	1.29	-	0.00

N= 6929; *p<.05, **p<.01, ***p<.001, AAP= affectations of productive activity: CPC= Competencies to face the economic recovery post COVID-19; RCAP= Training Requirements for competitiveness; IYCH=infrastructure and human capital. (a) very low "E"; (b) "D" under; (c) "D+" medium low d) "C-" medium, e) "C" medium high, f) "C+" high. η²=square partial Eta

CONCLUSIONS

The results shows that students perceive their institution as having a moderate level of infrastructure and human capital to provide students with the skills required to face economic and social recovery in the post-COVID-19 pandemic.

To maintain quality education in the post-pandemic era, Gamage et al., 2020 and Tartavulea et al., 2020 argue that institutions of higher education lack an evaluation process to access infrastructure and human capital formation and to prepare teachers who don't have the skills needed to face the challenge of online teaching and to implement appropriate pedagogical strategies.

The results demonstrate that graduate students, and students with additional income either through work or scholarships demand the greatest training requirements. Suleri, (2020) points out that this is a good time for higher education institutions to change the educational paradigm and give the virtual part of education a permanent place in their academic programs. Online learning should be an essential form of education from now on in higher education. Of course, educators must have the skill and training to provide quality education.

Regil (2014) highlights the importance of generating digital academic skills in higher education, which he indicates can be developed through institutional programs and pedagogical models that focus on self-management and self-regulation of learning.

Training should not focus exclusively on educators' digital skills. Educations should also be able to interact with the students inside and outside the class (Joia and Lorenzo, 2021). Joia and Lorenzo (2021) also pointed out the importance of area in education for the development of hard or soft skills. With regard to differences by socioeconomic level or age, the results indicate cannot be considered relevant. However, we posit that people who have a greater maturity that comes with age, and a higher socioeconomic level, perceive a greater need to possess the skills to face the economic recovery efficiently. Consequently, they identify much better the training requirements necessary to succeed post-pandemic.

Although long-term implications of the pandemic are not known, Carnevale and Hatak, (2020) argue that the impact in organizations will not be short-term. However, post-pandemic recovery offers new opportunities for an academic and business communities, and it is important to start working on development this opportunity.

REFERENCES

Abisha, M. & Dennison, M. S. (2020). "Survey on general awareness, mental state and academic difficulties among students due to COVID-19 outbreak in the western regions of Uganda". *Heliyon*, Vol. 6(11), pp. 1-9. https://doi.org/10.1016/j.heliyon.2020.e05454

Aucejo, E. M., French, J., Ugalde Araya, M. P., & Zafar, B. (2020). "The impact of COVID-19 on student experiences and expectations: Evidence from a survey". *Journal of Public Economics*, No. 191, pp. 1 -14. https://doi.org/10.1016/j.jpubeco.2020.104271

Belzunegui-Eraso, A. & Erro-Garcés, A. (2020). "Teleworking in the context of the Covid-19 crisis". Sustainability (Switzerland), Vol. 12(9), pp. 1–18. https://doi.org/10.3390/su12093662

Beneitone, P., Esqutine, C., González, J., Maletá, M. M., Siufi, G. & Wagenaar, R. (2007). Reflexiones y perspectivas de la Educación Superior en América Latina. Informe Final - Proyecto Tuning América Latina 2004-2007. Publicaciones de la Universidad de Deusto. España. http://tuning.unideusto.org/tuningal www.rug.nl/let/tuningal

Carnevale, J. B. & Hatak, I. (2020). "Employee adjustment and well-being in the era of COVID-19: Implications for human resource management". *Journal of Business Research,* Vol. 116(May), pp.183–187. https://doi.org/10.1016/j.jbusres.2020.05.037

CEPAL-UNESCO. (2020). La educación en tiempos de la pandemia de COVID-19. En Informe COVID-19 (Vol. 11). https://doi.org/10.5209/GEOP.69137

Cohen, A. K., Hoyt, L. T., & Dull, B. (2020). "A Descriptive Study of COVID-19–Related Experiences and Perspectives of a National Sample of College Students in Spring 2020". *Journal of Adolescent Health*, vol. 67(3), pp. 369–375. https://doi.org/10.1016/j.jadohealth.2020.06.009

Comisión Económica para América Latina y el Caribe. (2020). Measuring the impact of COVID-19 with a view to reactivation. En Comisión Económica para América Latina y el Caribe (No. 2). https://repositorio.cepal.org/bitstream/handle/11362/45477/S2000285_en.pdf?sequence=4

Gamage, K. A. A., Roshan Pradeep, R. G. G., Najdanovic-Visak, V. & Gunawardhana, N. (2020). "Academic standards and quality assurance: the impact of covid-19 on university degree programs". *Sustainability* (Switzerland), Vol.12(23), pp. 1–14. https://doi.org/10.3390/su122310032

Gómez-Tejeda, J. J., Dieguez-Guach, R. A. & Pérez-Abreu, M. R. (2020). "Alternativas terapéuticas para el manejo de la COVID-19". Rev. Habanera Cienc. Méd, 19, pp. 1–15. http://scielo.sld.cu/pdf/rhcm/v19s1/1729-519X-rhcm-19-s1-e3328.pdf

Joia, L. A. & Lorenzo, M. (2021). "Zoom in, zoom out: The impact of the covid-19 pandemic in the classroom". *Sustainability* (Switzerland), Vol.13(5), pp. 1–18. https://doi.org/10.3390/su13052531

Lai, P. (2017). "The Literature Review of Technology Adoption Models and Theories for the Novelty Technology". *Journal of Information Systems and Technology Management*, Vol. 14(1), pp. 21–38. https://doi.org/10.4301/s1807-17752017000100002

Lloret-Segura, S., Ferreres-Traver, A., Hernández-Baeza, A. & Tomás-Marco, I. (2014). "El análisis factorial exploratorio de los ítems: una guía práctica, revisada y actualizada". *Anales de Psicología,* Vol. 30(3), pp. 1151–1169. https://doi.org/10.6018/analesps.30.3.199361

Magaña, D.E., Aguilar, N. (2020). Diagnóstico Participativo Post COVID-19 en Tabasco. Eje Económico. [Documento Inédito]. Universidad Juárez Autónoma de Tabasco – Consejo de Ciencia y Tecnología del Estado de Tabasco.

Magaña, D.E. y Aguilar, N. (2021). "Propuesta de un modelo de sendero para analizar algunos efectos percibidos a causa de la COVID-19 en la actividad productiva". *Estudios Gerenciales*. Vol. 37(158), pp. 61-72. https://doi.org/10.18046/j.estger.2021.158.4436

Milton, V. (2010). "Confiabilidad y coeficiente Alpha de Cronbach". *Revista de Estudios Interdisciplinarios en Ciencias Sociales*. Vol. 12(2), pp. 248–252. http://redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=99315569010

Organización Mundial de la Salud. (2020). Enfermedad por el coronavirus (COVID-19): Vacunas. https://www.who.int/es/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines?adgroupsurvey=%7Badgroupsurvey%7D&gclid=EAIaIQobChMIgvDukOTL7wIVsDizAB3dIgfcEAAYASAAEgLUsvD_BwE

Osorio, C. (2020, 29 de diciembre). "Reporta CANACO el cierre de 1677 MiPymes de Tabasco en 2020". Telereportaje. Recuperado el 6 de enero del 2021, de: https://www.xevt.com/tabasco/reporta-canaco-el-cierre-de- 1677-mipymes-de-tabasco-en-2020/129394

Pagés, C., Aclán, C., Alfonso, M., Arroio, R., Irigoyen, J. L., Mejía, I., Mendieta, C., Moreno, S., Muente, A., Peñaherrera, S., Pombo, C., Regalía, F., Savedoff, B., Stein, E. & Tejerina, L. (2020). Del confinamiento a la reapertura: Consideraciones estratégicas para el reinicio de las actividades en América Latina y el Caribe en el marco de la COVID-19. Banco Interamericano de Desarrollo. https://doi.org/10.18235/0002349

Pan American Health Organization & World Health Organization. (2020). Rehabilitation considerations during the outbreak COVID-19. En Paho - Who (pp. 1–22). Pan American Health Organization World Health Organization. https://doi.org/www.paho.org/coronavirus

Patel, P. C. & Rietveld, C. A. (2020). "The impact of financial insecurity on the self-employed's short-term psychological distress: Evidence from the COVID-19 pandemic". *Journal of Business Venturing Insights,* Vol.14(October), pp. 1 -11. https://doi.org/10.1016/j.jbvi.2020.e00206

Regil, L. (2014). Habilidades digitales académicas en educación superior. http://somece2015.unam.mx/anterior/MEMORIA/46.pdf

Rocha, C. T. M. da & Amador, F. S. (2018). "Telework: conceptualization and issues for analysis". Cad. *EBAPE.BR,* Vol.16(1), pp. 152–162. https://doi.org/https://doi.org/10.1590/1679-395154516

Rosales, R. (2020, 29 de marzo). "QR, Coahuila, Oaxaca y Tabasco, las economías más vulnerables ante COVID-19". El economista. Recuperado el 6 de enero del 2021, de: https://www.eleconomista.com.mx/estados/QR-Coahuila- Oaxaca-y-Tabasco-las-economias-mas-vulnerables-ante- Covid-19-20200329-0074.html

Sánchez, A., Magaña, D.E., Aquino, S.P., Gómez, N.P., Cornelio, E.M., Silva, M.P., Palmeros, G.,

Aguilar, N., Rodríguez, A.R. y Corona, A. (2020). Diagnóstico participativo post COVID-19 en Tabasco [Proyecto de Investigación Inédito]. Universidad Juárez Autónoma de Tabasco – Consejo de Ciencia y Tecnología del Estado de Tabasco.

Sharma, P., Leung, T. Y., Kingshott, R. P. J., Davcik, N. S. & Cardinali, S. (2020). "Managing uncertainty during a global pandemic: An international business perspective". *Journal of Business Research,* vol. 116(May), pp. 188–192. https://doi.org/10.1016/j.jbusres.2020.05.026

Singh-Chouhan, V. & Srivastava, S. (2014). "Understanding competencies and competency Modeling ― A Literature Survey". IOSR J*ournal of Business and Management,* Vol. 16(1), pp. 14–22. https://doi.org/10.9790/487x-16111422

Suleri, J. (2020). "Learners' experience and expectations during and post COVID-19 in higher education". *Research in Hospitality Management*, Vol. 10(2), pp. 91–96. https://doi.org/10.1080/22243534.2020.1869463

Tartavulea, C. V., Albu, C. N., Albu, N., Dieaconescu, R. I. & Petre, S. (2020). "Online teaching practices and the effectiveness of the educational process in the wake of the Covid-19 pandemic". *Amfiteatru Economic*, Vol. 22(55), pp. 920–936. https://doi.org/10.24818/EA/2020/55/920

Tisdell, C. A. (2020). "Economic, social, and political issues raised by the COVID-19 pandemic". *Economic Analysis and Policy*, 68, pp. 17–28. https://doi.org/10.1016/j.eap.2020.08.002

United Nations. (2017). Decent Work Is Not Just a Goal-It Is a Driver of Sustainable Development. https://d306pr3pise04h.cloudfront.net/docs/publications%2FDecent_Work_and_the_2030_Agenda.pdf

United Nations. (2020a). United Nations Secretary-General launches plan to address the potentially devastating socio-economic impacts of COVID-19. https://www.un.org/sites/un2.un.org/files/un_brand_sg_press_release_march31_2020_10am.pdf

United Nations. (2020b). Shared Responsibility, Global Solidarity: Responding to the Socio-Economic Impacts of Covid-19. United Nations, (March), 1–26.

https://www.un.org/sites/un2.un.org/files/sg_report_socio-economic_impact_of_covid19.pdf

UNESCO. (2020). COVID-19 y educación superior : De los efectos inmediatos al día después. Análisis de impactos , respuestas políticas y recomendaciones. (No. 44). Autor.

Varsi-Rospigliosi, E., Rosenvald, N. & Torres-Maldonado, M. A. (2020). "La pandemia de la COVID-19, la fuerza mayor y la alteración de la circunstancias en materia contractual". *Acta Bioethica*, Vol. 26(1), pp. 29–36. https://scielo.conicyt.cl/pdf/abioeth/v26n1/1726-569X-abioeth-26-01-29.pdf

Williams, B., Onsman, A. & Brown, T. (2010). "Exploratory factor analysis: A five-step guide for novices". *Journal of Emergency Primary Health Care,* Vol. 8(3), pp. 1–13. https://doi.org/10.33151/ajp.8.3.93

Zhang, S., Moeckel, R., Tsui, A. & Shuai, B. (2020). "A work-life conflict perspective on telework". *Transportation Research Part A*, Vol. 141(September), pp. 51–68. https://doi.org/10.1016/j.tra.2020.09.007

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A COMPARISON OF HOSPITAL RISK MANAGEMENT STRATEGIES UNDER SARS AND COVID-19

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ABSTRACT

This study explores the methods of hospitals use in taking to implement response measures from the perspective of epidemic crisis management. We analyze the practical experience of each hospital, the crisis situation, the countermeasures, and the review of the hospital's rehabilitation methods. This research utilizes a case study method. Interviews, internal hospital file data, and related journal articles and media reports are the main sources of research data. This research explores organizational behavior of the hospital and the strategic emergency points that it showed in the face of crisis. We examine the "transformative" leadership style uses timely and application-oriented management. We observe that implementation of epidemic prevention measures and response methods have gradually embarked on the right path from chaos. Faced with a shortage of antiepidemic materials, hospitals have been working hard to deal with risk management. Based on these findings, this research provides some policy implications for hospitals to mobilize and respond to similar viral diseases in the future.

JEL: I18, G32, G34

KEYWORDS: Novel Coronavirus, Risk Management, Transformational Leadership

INTRODUCTION

In 2003, severe acute respiratory syndrome (SARS) broke out. The epidemic has caused 664 possible SARS cases in Taiwan, including 180 deaths. The painful experience of SARS delivered a heavy blow to Taiwan's public health system until December 31, 2019. The Taiwan Centers for Disease Control and Prevention (CDC) confirmed the new coronavirus epidemic to the CDC and World Health Organization (WHO). The Taiwan Executive Yuan held an interministerial meeting on disease quarantine and maintenance. The WHO announced the discovery of a new virus and named it the 2019 new coronavirus. Taiwan's disease control department listed the new type of coronavirus pneumonia, namely, "severe special infectious pneumonia," as the fifth category of statutory infectious diseases. On January 21, 2020 a new case of coronavirus infection appeared in Taiwan for the first time, and Taiwan's "Central Epidemic Command Center" was upgraded to level 2. On February 27, 2020 the Taiwan Epidemic Prevention Command Center was upgraded to level 1. On March 11, 2020 the WHO officially announced that the new coronary pneumonia had entered to "global pandemic."

The spread of emerging infectious diseases may only increase with the era of globalization. According to statistics on the WHO website on October 1, 2020, the coronavirus disease 2019 (COVID-19) epidemic has affected 187 countries and regions worldwide. In addition, according to statistics from Johns Hopkins University in the United States, there have been more than 33 million confirmed cases worldwide. As of October 1, 2020, Taiwan has confirmed 517 cases, and 7 deaths.

The current new coronavirus reappeared after the huge impact of SARS. The study suggests that to maintain the personnel health and safety in medical institutions, risk assessment should be carried out for the working environment or operational hazards of medical institutions. However, since possible hazards should be identified, as the basis for risk assessment, safety and health practices with reduced risks should be adopted (Zhu and Zhang, 2020). Taiwan effectively cuts off the chain of disease transmission through strict community defenses. Related measures include strengthening the notification of suspected cases, launching an expanded community surveillance program, early detection of confirmed cases, and subsequent isolation treatment to keep track of the status of cases (Xu, 2020). In fact, hospitals have had more than 10 years of experience in dealing with this disease. The hospital's medical staff did medical work when they faced the virus outbreak. Whether it is sufficient for the patient's infection control ability and self-protection ability will be tested in time.

In combating infectious diseases, Taiwan has always taken the Infectious Disease Prevention Law as the main normative basis. To effectively deal with such serious contagion and serious threats to people's lives and health, it made changes to the text after facing the painful lessons of the SARS epidemic. As an administrative worker in a hospital, this study can explore how epidemic hospitals in the community can use effective measures to deal with mission-based crisis.

An earlier version of this paper was presented at the Japan International Business and Management Research Conference. The earlier version was published in Proceedings of Japan International Business and Management Research Conference, RSF Press & Research Synergy Foundation, Lee and Weng (2020). The rest of this study is organized as follows: in the literature review part, the relevant research are mainly introduced. The research method section describes the data and defines the content of the interview. In the results and discussion section, the study provides specific comments on the results. The conclusion section contains some closing remarks.

LITERATURE REVIEW

Novel Coronavirus

Coronavirus is a virus with an envelope. The symptoms of the new coronavirus infection are more serious than those of the general coronavirus, and some cases may produce severe pneumonia and respiratory failure. Temporarily, the WHO named it the 2019 new coronavirus. At present, the complete transmission route of the 2019 new coronavirus is not yet fully understood. Fever and limb weakness are currently the clinical manifestations of the new known cases of coronavirus infection. Respiratory symptoms are mainly dry cough, with some people having difficulty breathing. Severe cases may develop severe pneumonia, respiratory distress syndrome, multiple organ failure, or shock. According to current epidemiological data, most patients can recover, but there are also deaths. Most deaths have underlying medical history, such as diabetes mellitus, chronic liver disease, renal insufficiency, and cardiovascular disease.

COVID-19 data so far indicate that 80% of infections are mild or asymptomatic, 15% are severe infections that require oxygen, and 5% are severe infections that require ventilation. The proportion of severe infections is higher than the proportion of influenza infections. Children, pregnant women, the elderly, people with chronic diseases, and the immunosuppressed are most likely to be infected with severe flu. Our current understanding of COVID-19 is that old age and underlying diseases increase the risk of serious infections. The mortality rate of COVID-19 seems to be higher than that of flu, seasonal flu in particular. Although it will take some time to fully understand the true mortality rate of COVID-19, our data so far indicate that the original mortality rate (the number of reported deaths divided by the number of reported cases) is between 3% and 4%, and the infection mortality (the number of reported deaths divided by the number of infections) will decrease. For seasonal flu, the mortality rate is usually <0.1%. However, the mortality rate depends largely on the extent and quality of medical services.

Risk Management

Risk management refers to how an enterprise can minimize risks in an environment where risks are certain. Risk management refers to the management method that selects the most effective way through the understanding and measurement and analysis of risks and deals with risks proactively, purposefully, and planned and strives to obtain the greatest safety guarantee at the lowest cost. Zhao (1998) argues that risk is the "probability" of a disaster occurring within a certain period of time. Kasperson (1985) suggests that risk refers to the probability of a certain consequence of a certain technology or activity over the years. The Webster's Dictionary says that a crisis is a turning point and a deteriorating watershed. It is a decisive and critical moment and is also a moment of life and death. It is an unstable period of time and an unstable state that forces the parties to make a decisive change. In short, a crisis is facing a major and critical state of danger, forcing people to make decisions and deal with them in a short time. Lerbinger (1997) points out that, from the perspective of corporate management, the definition of a crisis is an event that threatens the company's future growth or survival. It has the following characteristics: (1) Managers are aware of threats that may hinder the future development of the organization. (2) Managers realize that the consequences will be very dangerous if no action is taken to solve the problem. (3) The crisis occurs suddenly and is unprepared.

Hermann (1969) pointed out that the occurrence of a crisis is inevitable when three conditions are met: (1) Managers feel threatened and realize that this crisis will hinder the achievement of organizational goals. (2) Managers understand that the situation will continue to deteriorate or become even worse if no action is taken. (3) Managers are faced with a situation that suddenly occurs. Using Hermann's view to compare the situation of hospitals facing home quarantine of medical staff, we can better understand the "feeling" of the hospital brought by the "crisis," because it is facing quarantined people who are not sure whether they are infected, and the infection control operating guidelines must also be compared with the care specifications for the infected person. If it is not handled properly, the outbreak of nosocomial infection will make Taiwan's handling of the epidemic more difficult, and it will be fatal to the survival of the organization. Zheng (2016) mentioned that risk has five characteristics: Objectivity, Universality, Harmfulness, Inevitability, and Variability. Risks include internal environmental risks and external environmental risks. Internal environmental risks include financial, working environment, personnel, and accident risks. External environmental risks are risk medical institutions cannot control, such as SARS in 2003 or COVID-19 in 2020. Wang and Xu (2018) pointed out the risks that may occur in hospitals also include financial management risks, human resources risks, hospital reputation risks, quality management risks, and natural disaster risks.

Risk management is a systematic process whose purpose is to reduce losses caused by the occurrence of risk accidents; in this process, reasons and effects that are not conducive to the product or system can be measured (Yang, 2011). Risk assessment includes the results of risks and the probability of these results occurring (Wu, 2017). Broder and Tucker (2011) suggest that risk represents the uncertainty of property loss, the difference between actual and expected results, and the possibility of loss. They clearly divide risk into three parts: human resources, property and legal liability, and aim at the loss of human resources and property caused by legal liability. The biggest feature of risk management is to make a comprehensive inspection and review of the medical operation process, avoid the occurrence of abnormal events, assist medical managers in the priority of handling problems when facing problems, and improve the unit's system and operation process basis. Also, implementing new forms of governance regulation for greater control, use of knowledge and corporate responsibility (Van Erp, 2017; Carter et al., 2019; Lai, Panfilo, and Stacchezzini, 2019).

Hospitals face higher disease risk no matter whether it is the SARS virus in 2003 or the new coronavirus in 2019. Generally speaking, it is impossible to completely isolate nosocomial infections in hospitals and the ability to treat infectious virus patients depends upon (1) sufficient equipment (negative pressure isolation

ward, protective clothing, and masks), (2) sufficient manpower (infectious doctors and nursing staff), and (3) perfect isolation measures, such as monitoring of fever patients, handling procedures, and evacuation mechanisms. Although district-level hospitals do not have good medical manpower, equipment, and technology, they need to regularly monitor the status of nosocomial infections and formulate infection manuals. Further, infections and suspected infections require isolation. The patient is hospitalized for isolation, the contact adopts the home isolation policy, and the health authority is notified to evacuate in time.

Transformational Leadership

Traditional leadership theory is based on the balance theory, behind which is the expectation theory and the fairness theory. Influence comes from the leader's ability to make subordinates believe that contribution and compensation are fair and reasonable. The subordinates' obedience and loyalty to the leader are also based on the exchange of reciprocity. In 1978, for the first time in his classic book "Leadership," Burns (1978) put forward the concept of "transformational leadership." He divided political leadership into two types, according to the characteristics of leadership: transformational leadership and transactional leadership. This classification method of transformational and transactional leadership is currently in use.

Under the transformational leadership behavior model, leaders use methods such as dissemination of values to stimulate employees' motivation to work and meet their high-level psychological needs. Transformational leaders use their own behavior as an example to guide subordinates' behavior changes, while focusing on the individual needs of subordinates and strengthening the interaction among members of the organization. In contrast, an atmosphere conducive to team change is created through the cocreation and promotion of the organizational vision and mutual promotion and satisfaction of needs through subordinates and leaders, so that employees can devote themselves to work and ultimately achieve organizational goals. Bass (1985), Bass and Avolio (1990) and Bass and Riggio (2006) elaborated on the difference between transformational leadership and transactional leadership from the perspective of hierarchy of needs. They believe the main reasons for the two leadership styles are different sources of demand motivation. Transactional leadership is mainly performed through external demands such as expectations and rewards, whereas transformational leadership is maintained by stimulating internal motivation of employees (Bass and Avolio, 1990). Transformational leadership is specifically manifested in the following four behaviors: the personal charm of the leader, the motivation of vision, the inspiration of intelligence, and the personalized care (Bass and Avolio, 1994). This also constitutes the four dimensions of transformational leadership variables.

In recent years, changes in the medical environment have brought extremely severe challenges and tests to hospital managers. Therefore, for transformational leaders, how to effectively motivate team members to make employees better, perform tasks faster, and have a higher degree of engagement has become a very important research topic in organizational development. It can be seen from management practice that, in addition to innovation, the choice of organizational strategy, the quality of the members, and the design of the organizational system and the success or failure of an enterprise are direct. There is a decisive influence on organizational effectiveness (Brown, 1991; Yukl, 1994). Robbins (1996) found that, after a comprehensive study of relevant research, many scholars argue that leadership style has a significant impact on the work effectiveness of their subordinates. That is, leadership style is an important factor that can affect the overall effectiveness of the organization.

Burns (1978) and Bass (1985) suggest that, through various motivating leadership behaviors, the forward-looking vision, and personal charisma of transformational leaders could adjust the mentality of their subordinates in a subtle way. Subordinates mutually raise each other to a higher target level to obtain performance beyond expectations.

DATA AND METHODOLOGY

This study aims to explore how regional hospitals can use effective actions to deal with organizational behaviors in response to community-based epidemic tasks and to respond to crises. It is difficult to identify the causal relationship among different variables through the inference of research hypotheses because the hospital strategy and development process are dynamic. The viewpoint based on the case study assumes that human experience knowledge is constructed through interaction between humans and society. By identifying the existence of objective commonality in things in human experience, it is possible to quantify human experience and verify it through statistical methods. (Zhang, 2004). Therefore, we used a case study method to explore individual hospitals in response to the epidemic and obtain new perspectives. As the basis for the verification of strategic hypotheses, the interviewees could appropriately answer this research question. In recent years, in the field of management and strategy research, Eisenhardt and Graebner (2007) advocate case studies as a method of generating and testing theories, which seems to be favored by scholars. For example, Mintzberg (1973) interviewed managers to understand the nature of management itself and then established the theory of the role of managers based on the interview data and the types and nature of management activities, and the theory continued through interviews and questionnaires. Therefore, the case study is a qualitative study and seeks answers to questions based on the researchers' past experience. Pettigrew et al. (2001) suggest that the organizational transformation is no longer a simplified relationship between independent variables and dependent variables, but an interactive relationship between the context and activities on the time axis. Therefore, this case study is obviously more complete and structural and is sufficient to strengthen the lack of cross-sectional research.

This study selects a regional hospital in New Taipei City as the research object. It is based on a traditional private hospital of more than 20 years. Under the guidance of its vision, it has drawn up business directions in different periods to seek growth and continues to cooperate with the local community culture and economy. Social interaction is like a microcosm in the history of the development of community hospitals in Taiwan. Therefore, the growth process of the hospital is the research object of this study.

The data sources in this study are divided into primary and secondary data. Secondary sources include texts related to the institute, for example, hospital turnover, number of outpatients, and number of employees. In addition, on September 14, 2020, a face-to-face interview with the dean of the hospital from 10:00 to 12:00 and a one-hour interview with the former convener of the emergency response plan at 15:00. The actual interview questions in this study focused on convening the prevention and control meeting of the visited hospital in the face of the epidemic, the formulation of epidemic prevention policies, relevant epidemic prevention training, epidemic prevention supplies, task communication, and the discussion of the reward and punishment system during the epidemic prevention period. It can improve the validity of this study and confirm whether the direction of the hospital's response strategy for more than two decades is consistent with the hospital text to increase the reliability of this study.

RESULTS AND DISCUSSION

This study mainly examines the impact on people during the January to August 2020 epidemic and aims to consider the medical treatment in the same period in 2019 as a comparison to understand the changes in people's medical treatment in 2020. The main research purposes include (1) looking at the overall medical utilization status and trends before and after the novel coronavirus epidemic; (2) exploring whether the changes in medical utilization are an epidemic caused by the perceived risk based on the changes in the number of relevant news reports and suspected cases reported during the novel coronavirus; and (3) understanding the medical changes caused by the impact of the individual hospital on the new coronavirus.

First, the impact of the new coronavirus on medical utilization and overall trend. Changes in the number of medical visits during the new coronavirus epidemic are shown in Table 1. We first use the research samples

in 2019 and 2020 and the average number of medical visits in each month to show the trend of medical utilization changes. The average number of medical visits per month is 3,529 in 2019 and 3,010 in 2020. The number of medical visits in 2019 was slightly higher than that of the same period in 2020, and a significant decrease was found in 2020, which could reflect the epidemic. As of February, the number of medical visits in the month of 2020 began to be lower than in 2019, and the two-year gap reached the largest in April. It was not until July that the number of medical visits in 2020 rose back to higher than the same month in 2019.

Table 1: Number of Outpatients in Hospital

	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
2019	3706	2898	3575	3578	3619	3353	3530	3569	3447	3654	3593	3820	3529
2020	3215	2820	3010	2760	2802	2852	3171	2980	2819	3668			3010

This table sows the number of outpatients in the hospital for 2019 and 2020.

Second, consider changes in the number of relevant news reports and suspected case reports. The volume of news in newspapers during the epidemic reflects the degree of panic that the public may feel. Observe that the number of suspected cases of the novel coronavirus has the same trend as the volume of news reported in Figure 1. The news volume of the new coronavirus showed a similar increase and decrease as the number of cases. A negative correlation was found between the number of suspected cases of the novel coronavirus and the volume of news and the volume of Western medicine outpatient services. The volume of Western medicine outpatient services dropped significantly by 23% when the number of news reports on the novel coronavirus peaked Figure 1 and 2. Therefore, we can preliminarily judge that the people's perceived risk of seeking medical care affects their medical behavior and indirectly causes the decline in the amount of Western medicine outpatient services.

Figure 1: Trends in COVID-19 News Search Heat in Taiwan
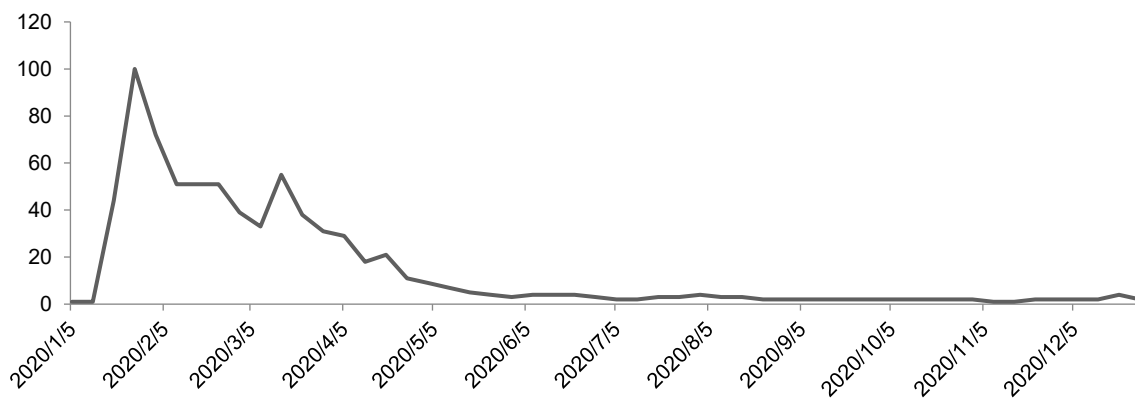
This figure shows quantity of news stories related to Novel Coronavirus.

Figure 2: The Number of News Reports Reaches the Peak Outpatient Volume

	2019	2020	
■ Apr	3578	2760	-23%
■ May	3619	2802	-23%
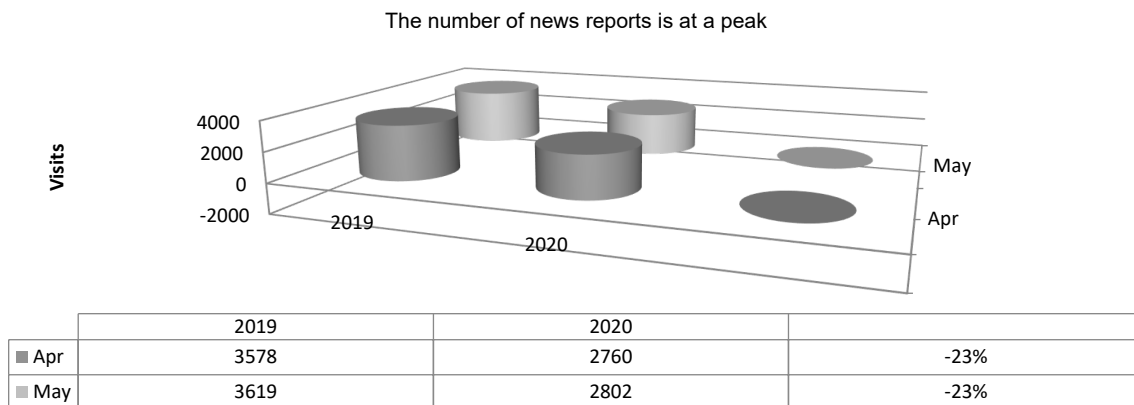
This figure shows the relationship between news reports and patient volume.

Third, consider the impact of individual hospitals on the new coronavirus. Comparing the volume of outpatient medical services of Western medicine in 2019 and 2020, we found the trend in 2020 is lower than in 2019. It may be the result of the unrecovered confidence of people, resulting in individuals fear of seeking medical treatment and delaying a good opportunity for treatment. Panic brought by the new coronavirus epidemic to the public is the main reason for the decline in medical utilization. During the new coronavirus epidemic, large hospitals are the main medical places for diagnosis and treatment of patients. Therefore, the impact of the epidemic on medical utilization may vary.

After comprehensive research data, sorting out the research findings and then further condensing, we find that regional hospitals reacted to the crisis as follows: There is some flexibility in behavior regarding how individual hospitals handled the new type of coronavirus. Negligence is inevitable because of the lack of previous SARS experience in the virus epidemic. The organization can maintain a little flexibility and automatically amend it. It does not stick to the usual rules and regulations to match the current situation and turn things around. For example, the convening of epidemic prevention and control conferences, the formulation of epidemic prevention policies, and the focus on timeliness in the procurement of antiepidemic materials all show that research hospitals have a certain degree of flexibility and can adjust their response.

Relevant epidemic prevention drills have been conducted many times, and the organization members are skilled in moving lines and processes. Because the hospital is a private hospital, it has a certain degree of crisis sense for infectious diseases, and there may be some shocks at the beginning of the new coronavirus epidemic. Hence, they are constantly practicing and guarding the arrangement of the isolation line in the hospital, the training of the way of wearing the isolation gown, and the simulation of all situations. This is the biggest advantage of the hospital during the epidemic prevention period of the new coronavirus.

Important key persons play a key role, and policy formulation has an expert-oriented style. As far as the leadership is concerned, they have been in the organization for a long time and are familiar with the organization and operation. Major decision-making discussions are conducted in the "sentiment control meeting" during the new coronavirus period. The attendees are all heads of various departments, discussing hospital policies together, which is a "cogovernance" leadership style. In this leadership class, even the deans, directors, etc., can respect the professional opinions of the supervisors of the various departments in the meeting, so that important key people can show their roles in a timely manner. Therefore, in the leadership style, although he is an elite leader, he has an expert-oriented style in policy formulation.

According to interview data, the hospital's antiepidemic supplies are generally sufficient. Although the epidemic is at its peak in February and March 2020, the research hospital was not able to adjust the antiepidemic supplies for a short time. Later, the research hospital material procurement staff had familiar manufacturers, and the Health Bureau had a supply of mask materials. Hence, the epidemic prevention materials were not interrupted, and the staff did not need to worry about material shortage. In addition, the Department of Disease Control of the Ministry of Health and Welfare formulated a "Personal Appropriate Protective Equipment Classification Table" for prevention. Workers on different occasions are assigned different levels of protective equipment for material control.

During the crisis management period, there are many "informal activities." Informal activities mentioned here refer to both communication and emotional support. In task communication, informal communication occupies an important place, which also promotes smoother task execution and improved efficiency. In terms of emotional support, the organization members encourage each other through work friendships and maintain a certain degree of morale at work.

Strict discipline during the epidemic prevention period should be implemented and punished if there is a fault. To improve the vigilance and efficiency of organization members, the reward and punishment system during the epidemic prevention period pays great attention to punishment when there is a fault. The hospital uses various means to exert powerful control: remembering rewards and punishments, forced rollovers, a large number of meetings, ordering publicity, etc. The sole purpose of all actions is to put employees "on the right track." Therefore, "strict discipline and punish once you pass" is a matching method.

The number of personnel in different units of the hospital department will vary. During the epidemic, the distribution and task assignment of frontline personnel will eventually involve a deeper level. When people have doubts about work assignments, the solution may be to have sufficient communication and dialog before assignments, which can also ease emotions and reduce friction.

Daily exercise in the hospital has ordinary effects, and exercises in different units cannot reach the same level of participation and enthusiasm. The attitude of the hospital and unit supervisors affects this behavior. Unit supervisors should force every employee to participate to improve outcomes. Usually focusing on crisis drills can enhance the crisis awareness of organization members.

The use of materials in the hospital during the epidemic prevention period is disturbed, and the unit nursing section chief and frontline nurses were not satisfied with the use of materials. Therefore, the entire hospital should establish a consensus in the use of materials for epidemics: "use when used." The quality of unit supervisors directly affect unit morale. Therefore, unit supervisors must pay attention to their own leadership style and methods, and they must both lead and pay attention when facing subordinates.

Although the hospital management places great importance to the drill process during the epidemic prevention period, some personnel may still neglect or fail to pay attention to the rigor and importance of the operating process. In the face of business, strict implementation of operating procedures can control and prevent many negative outcomes.

CONCLUDING COMMENTS

This research shows how medical institutions face the global risk of the coronavirus epidemic. Data on the overall medical utilization status of the hospital shows significant change in the medical utilization rate of the hospital, organizational behavior, and the hospital management. The following provides some policy recommendations. First, the organization should try to reduce the burden of unit personnel. Second, hospital leaders should pay attention to the effects of daily exercise. Third, a consensus should be reached

on the use of materials. Forth unit supervisors should lead people to think. Finally operating procedures should be strictly followed.

Owing to the nature of the hospital, the organizational culture tends to be conservative and obedient. Therefore, the mentality of employees is more or less influenced by the hospital and tends to be conservative. Only the unit responsible for the task is actively participating when the hospital is faced with handling risks and changes. When members perform tasks, other units have not actively expressed support and are even in a passive mode. Cultivating a proactive organizational culture of "all as one mind, we can overcome difficulties together." This mantra can be used in a timely manner when faced with the test of the epidemic (Wenda, 2003). In general, to exert team strength, all members should have the awareness of a community of life to help not only themselves but also others.

This study aims to verify risk management strategies of regional hospitals in the face of epidemic viruses. Due to time and manpower constraints, it is impossible to expand the study to management strategies of other types of hospitals. In addition, the scope of the study is for primary hospitals and does not include higher-level hospitals. Therefore, the conclusion cannot represent the entire medical organization. However, if the research object could be expanded in the future, it will not only target hospitals, but also cover health centers, clinics and outpatient departments. Taking the overall view of medical institutions in the region as the research object, this study verifies the application of risk management strategy and provides policy recommendations on corrective and preventive measures necessary to protect the health sector. It is recommended that future studies use other types of risk quality collection management, data and information sources, internal control, and clinical risks to investigate the hypothetical operation model. It also can be used to confirm the effectiveness of risk management strategies of medical organizations at all levels.

REFERENCES

Bass, B. M. (1985). Leadership and Performance Beyond Expectation. Free Press, New   York, NY.

Bass, B. M. and Avolio, B. J. (1990). "Developing Transformational Leadership: 1992 and Beyond," *Journal of European Industrial Training*, vol. 14 (5), p. 21-27.

Bass, B. M. and Avolio, B. J. (1994). Improving Organizational Effectiveness Through Transformational Leadership. Sage, Thousand Oaks, CA

Bass, B. M. and Riggio, R. (2006). Transformational Leadership (2nd ed.), Mahwah, NJ: Lawrence Erlbaum.

Broder, J. F. and Tucker, E. (2011). Risk Analysis and the Security Survey. Elsevier.

Brown, R. L. (1991) Critical Attributes of Instructional Leadership in Nationally Eecognized Secondary-Level Blue Ribbon Schools. Unpublished Doctoral Dissertation, East Texas State University, Texas.

Burns, J. M. (1978). Leadership. New York: Harper & Row.

Carter, A. R., Meinert, E. and Brindley, D. A. (2019). "Biotechnology governance 2.0: A proposal for minimum standards in biotechnology corporate governance," *Rejuvenation Research*, vol.22(3), p. 254-260.

Eisenhardt, K. M. and Graebner, M. E.,(2007). "Theory Building from Cases: Opportunities and Challenges," *Academy of Management Journal*, vol. 50(1), p. 25-32

Hermann, C. F. (1969). "Some Consequences of Crisis Which Limit the Viability of Organizations," *Administrative Science Quarterly*, vol.8, p. 61-82

Lai, A. Panfilo, S. And Stacchezzini, R. (2019). "The Governmentality of Corporate Sustainability: The Case of the ILVA Steel Plant in Taranto (Italy)," *Journal of Management and Governance*, vol. 23 (1), p. 67-109.

Lee. S-N. and T-C. Weng (2020) "Choice of Hospital Risk Management Strategy-Comparison between SARS and COVID-19, Proceedings of Japan International Business and Management Research Conference, Vol. 1(1), p. 91-98

Lerbinger, O. (1997). The Crisis Manager: Facing Risk and Responsibility. Mahwah, NJ: Lawrence Erlbaum Associates, INC.

Mintzberg, H. (1973). The Nature of Managerial Work, New York: Happer & Row.

Pettigrew, M. A., Wooodman, R. W., and Cameron, K. S., (2001). "Studying Organizational Change and Development: Challenges for Future Research," Academy of Management Journal, vol. 44(9), p. 697-713

Robbins, S. P. (1996). Organizational Behavior: Cooncepts, Controversies, and Applications. 7th ed., Englewood Cliffs, N.J.: Prentice Hall.

Van Erp, J. (2017). "New Governance of Corporate Cybersecurity: A Case Study of the Petrochemical Industry in the Port of Rotterdam," *Crime, Law and Social Change*, vol. 68, p. 75-93.

Wang Y, and Xu, J. (2018). "Medical Risk Management and Crisis Management," *Journal of Medicine and Health*, vol. 8 (1), p. 115-125.

Wenda, Q. (2003). Hospital quality management, Hutchison Publishing, Taipei.

Wu, R. (2017). "The Construction of Hotel Risk Management and Evaluation Plan," *East Asia Forum Quarterly* (EAST-ASIA REVIEW) vol. 497, p. 1-16.

Xu, J., Chen, X., Wang, E., Liu, H. and Yang, J. (2020) "Community Epidemic Prevention Measures and Effectiveness of Severe Infectious Pneumonia (COVID-19) in Taiwan," Epidemic report, vol. 36 (15), p. 235-245.

Yang, Y. C. (2011). "Risk Management of Taiwan's Maritime Supply Chain Security," *Journal of Safety Science*, vol. 49(3), p. 382-393.

Yukl, G. A. (1994). Leadership in Organization. 3rd ed., Englewood Cliffs, N.J.: Prentice Hall.

Zhang, S. (2004). Research Methods, Canghai Bookstore, Taichung,

Zhao, G. (1998). "Disaster Accident Crisis Management," *Research Report*, vol. 43, p. 50-66.

Zheng, C. (2016). Risk Management Theory and Practice. Taipei: Wunan Book Publishing Co., Ltd.

Zhu, K. and Zhang, G., (2020). Hospital Novel Coronavirus (COVID-19) Epidemic Prevention and Infection Control and Risk Assessment Measures Industrial Safety and Health, vol. 371, p. 9-28.

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