JOURNAL OF CORPORATE GOVERNANCE, INSURANCE AND RISK MANAGEMENT

ISSN 2757-0983 (Online)
2020, Volume 7, Number 1

JCGIRM JOURNAL OF CORPORATE GOVERNANCE, INSURANCE AND RISK MANAGEMENT

ISSN: 2056-7375 (Online)
www.jcgirm.com

Published by:
Centar za istraživanje i razvoj upravljanja d.o.o.
CIRU - Governance Research and Development Centre
Kraljevićeva 6, 10000 Zagreb, Croatia
&
University of Malta, Faculty of Economics, Management and Accountancy Department of Insurance, Room 218 Msida MSD2080, Malta

THE JOURNAL OF CORPORATE GOVERNANCE, INSURANCE AND RISK MANAGEMENT

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2020, Volume 7, Series 1

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The Relevance of absorptive capacity in firms' innovation strategies measured via bibliometric analysis

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ABSTRACT

Absorptive capacity (ACAP) as a function of systematic knowledge management is widely recognized as the catalyst for successful innovation performance in firms, particularly when it comes to identifying business opportunity information from the outside world and assimilating it into a firm's innovation process. The concept of absorptive capacity became a widely researched topic in the area of organization and management, consequently, the definition of the ACAP components, its operationalization and outcomes, is extremely heterogeneous and has greatly affected the research production on ACAP. Therefore, the question arising is: Which approach to absorptive capacity will enable its being truly recognized as a concept at a global level, and in which areas of economy and business is ACAP most frequently encountered, particularly when it is connected to innovation processes? Based on a sample of 1288 papers within Web of Science Core Collection, this paper presents a bibliometric analysis of relevant publications on ACAP with the specific aim of gaining a deeper insight into the relevance of the impact of absorptive capacity on a firm's innovation strategy. The results were systematized in a form of quantitative bibliographic review. The purpose of the analysis was to determine the existing level of the empirical and theoretical efforts in the research on ACAP, with a particular focus on firms and their innovation processes as well as knowledge management processes.

ARTICLE INFO

Keywords:
absorptive capacity, innovation process, bibliometric meta-analysis, strategic management

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Article history:
Received 10 01 2017
Revised 14 02 2017
Accepted 22 03 2017

This article was presented at the 5th International OFEL Conference on Governance, Management and Entrepreneurship. The Paradoxes of Leadership and Governance in the Postmodern Society. (April 7th - 8th, 2017, Dubrovnik, Croatia, Governance Research and Development Centre CIRU), Zagreb, pp. 438-450

1. INTRODUCTION

In their quest to find the appropriate term to describe organizational capacity to recognize the value of new external information (knowledge), its assimilation and commercial implementation, Cohen and Levinthal (1989, 1990) suggested the term absorptive capacity (ACAP). The definition of ACAP was formulated as the ability of a firm to identify the value of new, external information, assimilate it, and apply it to commercial ends, where authors largely perceived it as a function of prior related knowledge.

In the evolution of the discipline, a significant contribution was given by Zahra and George (2002), who recognized absorptive capacity as a key dynamic capacity that strongly influences the nature and sustainability of competitive advantage. The concept of ACAP has been used to explain various organizational phenomena (Zahra and George, 2002) in strategy (Nahapiet and Ghoshal, 1998) and technology management (Schilling, 1998; Rush, Bessant and Hobday, 2007; Rodriguez, Wise and Martinez 2013).

This paper is primarily focused on the in-depth analysis and review of the ACAP related research bibliography and registered publishing databases, with a particular emphasis on the relationship of ACAP and innovation strategies. Therefore, the principal objective of this paper is to determine the relevance of ACAP and provide a literature overview in the field of ACAP via a comprehensive bibliometric analysis. Notably, the specific objective is to assess the relevance of the ACAP research in firms, with a particular focus on innovation and innovation related strategies.

As the instrument to achieve our defined research objectives we have selected a commonly used methodological systematic review of the available bibliography in a form of a simplified meta-analysis (Dabić et al. 2014, 2015). Methodologically, the first step was to perform a thorough exploratory secondary analysis on the research literature related to the existing knowledge of the selected ACAP field. We only retained articles from journals indexed in the Web of Science database, as it can be considered most rigour and qualified. Articles in the database were retrieved using the search function and the lexemes (TS=(absorptive capacity) AND TS=(innovation) AND TS=(company OR firm OR SME) AND TS=(performance)) AND DOCUMENT TYPES: (Article).The search is conducted on February 20th, 2016 resulted 1 288 articles which have been cited 25 958 times.

The relevance of the topic can be corroborated by several earlier studies where meta-analysis or systematic reviews have been used (Maldonado, Vera and Keller 2015, Lewandowska, 2015).

2. ROLE OF ACAP IN INNOVATION STRATEGIES

In the context of innovation, a firm's absorptive capacity refers to its ability to assimilate and manage acquired knowledge, aiming at improving innovation outputs and achieving a competitive advantage (Abreu et al., 2008). In the world of globalization and fierce competition, where competitive advantage increasingly relies on knowledge, firms are trying to learn and develop skills faster than their rivals (Teece and Pisano, 1994). These skills need to be more dynamic in order to achieve an advantage over one's competitors. Dynamic capabilities enable firms to adjust to changing conditions that govern the market (Teece, Pisano and Shuen, 1997).

According to Dosi, innovation, which is closely and inextricably linked to the concept of knowledge, is a complex process at the level of knowledge research and its exploitation (Dosi, 1988). Innovation, as a direct result of knowledge or combinations of knowledge, is considered a fundamental component

of entrepreneurship and a key element of business success (Dabic et al., 2009). Innovation and innovation potential are widely considered and recognized as some of the most important factors of firms' competitiveness. Today, innovation is a major factor in improving firms' productivity and efficiency, as well as product quality, and reducing production costs and production time.

According to Radosevic (2004), competitiveness and innovation activities are linked to national innovation capacity, which includes the implementation of R&D activities, dissemination of knowledge, market demand and, ultimately, absorptive capacity. Radosevic (2004) states that there is a general consensus among economists that innovation in enterprises play a key role in the process of sustainable long-term economic growth.

Research links between ACAP and innovation processes in firms are the main subject of this paper, and there is a large amount of scientific literature exploring their correlation. Some of the authors discussing the topic are Lin 2016, Liao 2009, Forés and Camison 2016 Grandinetti 2016, Bahli et al 2013.

However, ACAP should not be explored only as an important function in firms' implementation of innovation and related performances, but also in the context of its competitive advantage. From the resource-based view (RBV), a firm's existing knowledge or its ability to acquire new knowledge is the highest ranking strategic resource that a firm can own. Many authors (Barney 1986, Grant 1996, Argote and Ingram 2000) use a resource-based approach as a basis for a sustainable competitive advantage, which essentially presupposes the existence and proper management of resources and capacities within the firm. These resources then participate in achieving a sustainable competitive advantage (SCA).

Absorptive capacity is a basic function of the fundamental processes of learning in firms and can be a source of competitive advantage. Thus developed, ACAP enables the identification, adaptation and embodiment of external knowledge within firms' own routines (Cohen and Levinthal, 1990; Lane, Koka and Pathak, 2006). Knowledge-based competitive advantage is innovative per se in the way it develops in the process of creating new products, services, processes or structures. Firms based on knowledge can not only respond quickly to customer needs, but also actively shape their expectations and goals for future products and/or services (Gurteen, 1998).

Firms achieve their competitive advantage not only by using their own key resources, but also by using their own internal ability to reconfigure their knowledge base and adapt to the conditions of market fluctuations (Kleinschmidt, De Brentani and Salome, 2007). Therefore, the ability to produce, share and use knowledge, which represents essentially the core of a firms' ACAP, can be considered crucial for gaining and maintaining a competitive advantage (Barney, 1986; Cohen, Levinthal, 1990).

In his work Chauvet (2002) claims that the transfer of knowledge is one of the key prerequisites to achieve a sustainable competitive advantage, thus reaffirming the direct link of the SCA based on

knowledge and absorptive capacity. In this way, knowledge is a natural moderator connecting absorptive capacity and sustainable competitive advantage. Chauvet goes on to say that, in fact, ACAP and knowledge transfer are forming a closed circuit, and puts knowledge in the first place, its analysis in the second and the transfer of knowledge in the third place, all in order to achieve and maintain a sustainable competitive advantage.

When it comes to the size of firms, research in the field of strategic management suggests that one of the most important distinctions in the functioning of large companies vs. SMEs is their ability to overcome barriers and constraints that come from their capacity or size. Thus, the prevailing opinion is that small and medium enterprises are very limited in terms of business relationship development, particularly in terms of the outside world and therefore possess limited ability to acquire new knowledge from the outside world. (Grandinetti, 2016). Grandinetti further says that the above statement becomes clearer when one considers that the resource theory views sustainable competitive advantage as a priority for learning resource/capacity. Das and Teng (2000) argue that external resources available to a firm (external knowledge, materials or other resources) are not in its immediate direct ownership, but are still within reach through developed partnerships and networks with other organizations that the firm can develop in the environment.

Grandinetti (2016) also states that some authors even suggest that the "interorganizational relationship should be seen as a specific modality of organic growth of businesses" (which especially applies to SMEs), while at the same time it can be seen as a lever supporting their individual growth (McKelvie and Wiklund, 2010 Furlan, Grandinetti and Paggiaro, 2014).

Research on ACAP in Croatia

When it comes to scientific research on absorptive capacity in Croatia, according to available information, it has not been the focus of the Croatian scientific community so far. We may assume that the reason lies in the fact that producing thorough and relevant ACAP related studies requires a multidisciplinary scientific approach that would encompass and cover its complex scope. Therefore, in the relevant available and published literature in Croatia there is a noticeable lack of conceptual and empirical scientific knowledge about absorptive capacity of firms; in particular, there are no documented procedures of the operationalization of ACAP at any level.

Some documents, such as 'Strategy for Fostering Innovation' (MINGO, 2014), state that the limited and low level absorptive capacity of domestic firms, especially in the segment of small and medium-sized companies, limits the acquisition and application of available domestic or foreign knowledge and its transfer into technology development. In addition, the overall ability and capacities of firms' research and development in the private sector has been influenced by some historical factors. In particular, by the restructuring and privatization of state-owned enterprises in the 1990s, which

resulted in the closing down of a large number of R&D departments, which had once been well-integrated in the production of state-owned enterprises. Today, the national institutional framework is becoming increasingly aware of the role of ACAP in firms, thus in the recently published 'Strategy for Smart Specialization in Croatia for Period 2016 – 2020' (MINGO, 2016) ACAP is considered one of the most important aspects of Smart specialization strategy.

3. META-ANALYSIS OF ACAP BIBLIOGRAPHY

Since ACAP is a hybrid between social/humanistic and technology learning sciences, we have decided to search through Web of Science (WoS) Core Collection as the primary source of information. In order to determine the relevance of ACAP, as suggested in Dabic, González-Loureiro and Furrer (2015), the first step was to systematize filtered bibliographic records contained in WoS. Our search included works that had been published until the end of 2016, and the key words used were *absorptive capacity*, *innovation, firm or company, performance*. As a result, 1288 papers were identified to contain composites of researched keywords.

Firstly, we observed the chronological profile of ACAP-related published papers, where the growth curve of published papers has been exponentially increasing since the first records in the early 1990s (Figure 1). A noticeable increase in publishing can be observed from the mid 2000s onwards, where the discipline has been strongly advancing in its visibility and scientific relevance.

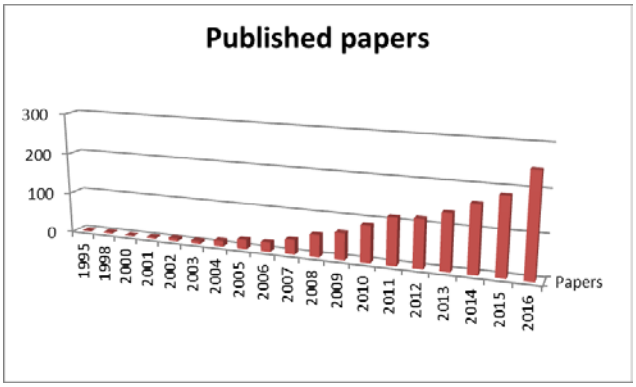

Figure 1. Chronological records of ACAP publishing,

Source: WoS

When it comes to the analysis of published articles in relevant publications, a relative balance may be noticed. Nevertheless, *Research Policy, Strategic Management Journal, Journal of Business Research and Technovation* are preferentially selected in the observed field of ACAP. Table 1 shows the top twenty ACAP publishing journals that cumulatively cover more than 45% of total publishing.

Table 1. Top 20 ACAP publishing journals

No.	JOURNAL NAME	No. of publicat.	% of total 1288	% cum.
1	RESEARCH POLICY	67	5,20%	5,20%
2	JOURNAL OF BUSINESS RESEARCH	52	4,04%	9,24%
3	STRATEGIC MANAGEMENT JOURNAL	47	3,65%	12,89%
4	TECHNOVATION	38	2,95%	15,84%
5	JOURNAL OF KNOWLEDGE MANAGEMENT	35	2,72%	18,56%
H K 6	TECHNOLOGY ANALYSIS STRATEGIC MANAGEMENT	33	2,56%	21,12%
7	JOURNAL OF PRODUCT INNOVATION MANAGEMENT	33	2,56%	23,68%
8	R&D MANAGEMENT	32	2,48%	26,16%
9	INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT	32	2,48%	28,65%
10	JOURNAL OF ENGINEERING AND TECHNOLOGY MANAGEMENT	25	1,94%	30,59%
11	TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE	24	1,86%	32,45%
12	MANAGEMENT DECISION	21	1,63%	34,08%
13	INDUSTRIAL MARKETING MANAGEMENT	21	1,63%	35,71%
14	JOURNAL OF TECHNOLOGY TRANSFER	20	1,55%	37,27%
15	IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT	20	1,55%	38,82%
16	JOURNAL OF BUSINESS VENTURING	19	1,48%	40,30%
17	INDUSTRY AND INNOVATION	18	1,40%	41,69%
18	KNOWLEDGE MANAGEMENT RESEARCH PRACTICE	17	1,32%	43,01%
19	ORGANIZATION SCIENCE	16	1,24%	44,25%
20	JOURNAL OF MANAGEMENT STUDIES	16	1,24%	45,50%

Source : WOS

The applicability of ACAP in specific areas covers a wide range. Our research has identified 30 areas that are covered by at least one publication. These papers are often classified through a multicategory selecting principle, which means that ACAP is presented as a multidisciplinary field. A large number

of published papers is related to technological innovation in engineering, public administration and operation in research and development. However, most of them are published in the area of business and economics, which means that the majority of researchers and research interest derive from the business sector. Table 2 shows the first fifteen areas of research in the classification are shown in Table 2.

Table 2. Most ACAP related researched areas

	Research area	No. of papers	% of 1288
1.	BUSINESS ECONOMICS	1167	90,61%
2.	ENGINEERING	218	16,93%
3.	PUBLIC ADMINISTRATION	121	9,39%
4.	OPERATIONS RESEARCH MANAGEMENT SCIENCE	98	7,61%
5.	INFORMATION SCIENCE LIBRARY SCIENCE	86	6,68%
6.	SCIENCE TECHNOLOGY OTHER TOPICS	51	3,96%
7.	ENVIRONMENTAL SCIENCES ECOLOGY	43	3,34%
8.	COMPUTER SCIENCE	42	3,26%
9.	GEOGRAPHY	28	2,17%
10.	PSYCHOLOGY	15	1,16%
11.	SOCIAL SCIENCES OTHER TOPICS	14	1,09%
12.	URBAN STUDIES	8	0,62%
13.	AGRICULTURE	6	0,47%
14.	INTERNATIONAL RELATIONS	5	0,39%
15.	FOOD SCIENCE TECHNOLOGY	4	0,31%

Source: WoS

When it comes to geographical distribution, the most productive authors of the ACAP related publications in the defined research scope derive from the USA, Spain, England and P.R. China (Figure 2). More precisely, the analysis shows that out of 1288 processed papers, 313 are published by

authors from the United States, 199 are the work of Spanish authors, 166 by the UK based researchers, while 139 of them derive from P.R. China. Within the first 20 countries related ACAP publishing, except for the works from the United States, all the rest come from Europe or Asia.

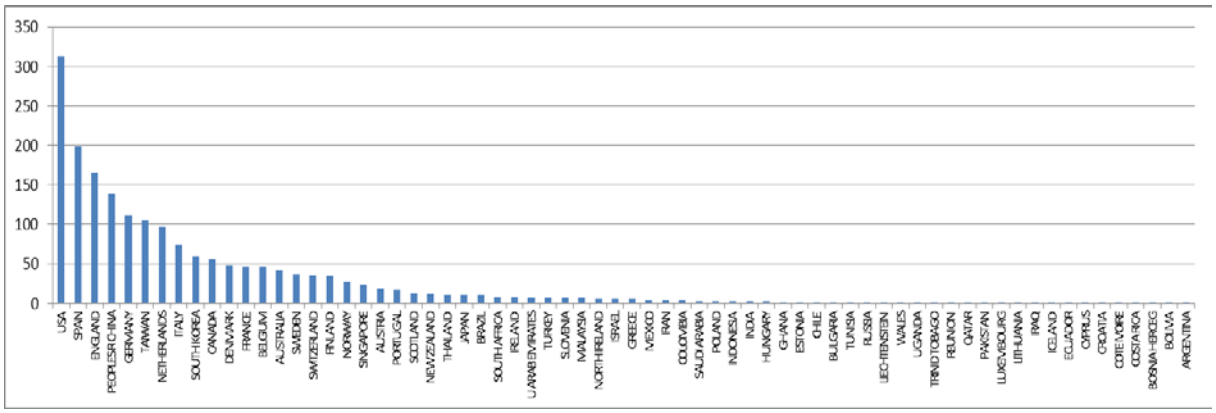

Figure 2. Geographical/country related ACAP publishing

Source: WoS

Statistically processed results covering Croatia's regional neighborhood show 6 papers from Slovenia, 68 from Italy, 18 from Austria and 2 of them from Hungary. Only one paper belonging to the Croatian scientific milieu has been recorded in WoS, which in its scope does not directly research absorptive capacity of firms, but is more focused on other aspects of innovation. The extension of this research, outside of WoS boundaries (using Google Scholar) has revealed that there are some other sporadic attempts to deal with ACAP in Croatian publications, but these are of a more descriptive and informative nature. From the national policy perspective, ACAP in companies is mentioned at a limited and only conceptual context in few other documents (national strategies) published by the Croatian Government.

The most productive authors are Lichtenthaler U. with 22 publications, Molina-Morales F.X. with 15 and Roper S. with 12 papers. The complete list of top fifteen authors in ACAP related publications is presented in Table 3.

Table 3. ACAP topics leading authors,

Author	No. of citations
LICHTENTHALER U	22
MOLINA-MORALES FX	15
ROPER S	12
WANG YD	11
ZAHRA SA	10

VANHAVERBEKE W	10
NAVAS-LOPEZ JE	9
DUYSTERS G	9
VOLBERDA HW	8
PETRUZZELLI AM	8
BRETTEL M	8
VAN DEN BOSCH FAJ	7
TSAI KH	7
LI Y	7
HURMELINNA-LAUKKANEN P	7

Source: WoS

Finally, by conducting a meta-analysis based on 1288 filtered works, we have identified a total of 22366 citations registered in WoS. A list of fifteen most cited papers is shown in Table 4. The table shows that Lane and Lubatkin's paper '*Relative Absorptive Capacity and Interorganizational Learning*' from 1998 has been cited more than 1400 times. The second place is held by W.P. Tsai with the paper entitled '*Knowledge transfer and intraorganizational networks: Effects of network position and absorptive capacity on innovation and business unit performance'* published in 2001 with over 1050 citations. Tsai is followed by Ahuja and Katila's *'Technological acquisitions and the innovation performance of acquiring firms: A longitudinal study'* presented in 2001 with a total of 562 citations. The first fifteen papers indicated in the table cumulatively exceed the 25% of all citations in the research scope, which somehow sheds a particular light on the importance of these 15 presented works that influenced past ACAP research.

Table 4. ACAP leading citing papers/authors,

	Authors	**year.**	**Title**	**No. cit.**	**% of total**	**cum.**
1	Lane, PJ; Lubatkin, M	1998	Relative absorptive capacity and interorganizational learning	1425	5,49 %	5,49%
2	Tsai, WP	2001	Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance	1059	4,08 %	9,57%
3	Ahuja, G; Katila, R	2001	Technological acquisitions and the innovation performance of acquiring firms: A longitudinal study	562	2,17 %	11,73 %

4	Cockburn, IM; Henderson, RM	1998	Absorptive capacity, coauthoring behavior, and the organization of research in drug discovery	391	1,51 %	13,24 %
5	Zaheer, A; Bell, GG	2005	Benefiting from network position: Firm capabilities, structural holes, and performance	384	1,48 %	14,72 %
6	Andersson, U; Forsgren, M; Holm, U	2002	The strategic impact of external networks: Subsidiary performance and competence development in the multinational corporation	362	1,39 %	16,11 %
7	Raisch, S; Birkinshaw, J; Probst, G; Tushman, ML	2009	Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance	355	1,37 %	17,48 %
8	Giuliani, E; Bell, M	2005	The micro-determinants of meso-level learning and innovation: evidence from a Chilean wine cluster	314	1,21 %	18,69 %
9	Kim, L	1998	Crisis construction and organizational learning: Capability building in catching-up at Hyundai Motor	307	1,18 %	19,87 %
10	Nooteboom, B; Van Haverbeke, W; Duysters, G; Gilsing, V; van den Oord, A	2007	Optimal cognitive distance and absorptive capacity	301	1,16 %	21,03 %
11	Hoang, H; Rothaermel, FT	2005	The effect of general and partner-specific alliance experience on joint R&D project performance	260	1,00 %	22,04 %
12	Huizingh, EKRE	2011	Open innovation: State of the art and future perspectives	234	0,90 %	22,94 %
13	Stam, W; Elfring, T	2008	Entrepreneurial orientation and new venture performance: The moderating role of intra-	218	0,84 %	23,78 %

			and extraindustry social capital			
14	Caloghirou, Y; Kastelli, I; Tsakanikas, A	2004	Internal capabilities and external knowledge sources: complements or substitutes for innovative performance?	218	0,84 %	24,62 %
15	Lichtenthaler, U	2009	Absorptive Capacity, Environmental Turbulence, And The Complementarity Of Organizational Learning Processes (Retracted article. See vol. 56, pg. 1830, 2013)	217	0,84 %	25,45 %

5. CONCLUSIONS

The results of the meta-analysis showed a noticeable multidisciplinary and interdisciplinary character of the selected topic – absorptive capacity of firms. The analysis showed that the area of ACAP is increasingly attractive, very actual and scientifically relevant, particularly in areas where innovation and high added value products/services are identified as key factors in achieving and maintaining a long-term sustainable competitive advantage. As confirmed by the overview of researched areas, ACAP often explores interactions related to innovation in firms, usually particularly focusing on technological innovation and R&D, regardless of being realized internally or externally, or both.

Due to its multidisciplinary and interdisciplinary character, which requires a thorough understanding of a large number of operating variables in firms, ACAP is often too complex to be operationalized. This complexity leads to a variety of contextual approaches in its measurement and operationalization and so far none of the existing models or methodological approaches have shown themselves to be ideal or highly prescriptive for determining a firm's ACAP.

The importance of ACAP is primarily recognized in developed countries (USA, Spain, UK, Denmark), but also in the leading emerging world economy, P.R. China. It may be concluded that countries and economies with somewhat stronger industrial backgrounds, past or future, are more inclined to explore and understand the ACAP interactions and influence aiming at firms' competitiveness.

Unfortunately, ACAP has been rather neglected and unembraced in the authors' own country, Croatia, where almost none or very little research activity has been recorded in relation to the ACAP field. This is particularly visible in terms of ACAP related publishing, which is almost nonexistent.

Among other objectives, this paper aims at raising awareness of the importance of ACAP and possibly encouraging interest in ACAP publishing within the Croatian research milieu. This would be a step forward in assisting national firms and the institutional framework in understanding and creating a

better environment for boosting innovation, which will consequently stimulate the increase of the firms' international competitiveness.

Finally, the presented trends show a continuous increase in the publishing volume, which leads us to conclude that ACAP will continue to be a very attractive and interesting area for further research not only for researchers in Croatia, but at the global level as well.

Funding: This research received no external funding

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JCGIRM Journal of Corporate Governance, Insurance, and Risk Management (JCGIRM)
20XX, Volume 7, Series 1

pp 15-24

Institutional distance: construct of isomorphism relevant to multinational companies

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ABSTRACT

The institutional environment in which multinational companies act is unique and complex. It is unique in the sense that the subsidiaries of multinational companies are facing dual pressures from both the host country and the country of the parent company. Further, the complexity of the environment presumes the need for global integration and the need for the local adaptation. Although some countries are characterized by a more favorable institutional environment for establishing and expanding business, in other countries the institutional environment is a challenge for multinational companies. In this paper, the author will present the current theoretical knowledge and references in already conducted research regarding the institutional distance in the context of multinational companies and its subsidiaries.

ARTICLE INFO

Keywords:
institutional distance, institutional environment, isomorphism, multinational companies

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Article history:
Received 15 01 2020
Revised 10 02 2020
Accepted 22 03 2020

This article was presented at the 8th International OFEL Conference on Governance, Management and Entrepreneurship. From Corporations to Social Entrepreneurs: Exploring the Different Faces of Social Innovation (April 17th - 18th, 2020, Dubrovnik, Croatia, Governance Research and Development Centre CIRU), Zagreb, pp. 163-170

1. INTRODUCTION

The institutional environment in which multinational companies act is unique and complex. It is unique in the sense that the subsidiaries of multinational companies are facing dual pressures from both the host country and the country of the parent company. The institutional environment from the perspective of multinational companies is complex because of the need for global integration and consistency, also because of the need for the local adaptation (Rosenzweig & Singh, 1991). Adaptation to the local environment of the host country is a necessary prerequisite for achieving legitimacy (Kostova, 1999). Often, these needs for adopting and adapting to the local environment and conditions are contradictory, which is further burdened by the imperative to use best practices in all

subsidiary countries in order to easily manage and utilize competencies to achieve efficiency (Taylor, Beechler & Napier, 1996).

Although some countries are characterized by a more favorable institutional environment for establishing and expanding business practices, in other countries the institutional environment is a challenge. Institutional theory theorists suggest that challenges and difficulties from the institutional setting are related to institutional pressures to make companies isomorphic to local conditions and practices to make foreign businesses legitimate (Kostova & Roth, 2002) and on the other hand, the more institutional the distance, the more the transfer of the parent company's business practices to its subsidiaries is difficult.

This review paper will provide insight into the theoretical perspective of institutional distance as a construct inseparable from the operations of multinational enterprises in today's business environment. Additionally, the empirical findings of the conducted research so far in the relevant literature will be presented

2. INSTITUTIONAL DISTANCE: THEORETICAL BACKGROUND

Institutional distance is defined as the relative difference in the quality of institutions of the country of origin and the host country (Gaur & Lu, 2007), and in the conceptualisation of this matter the differences in market, political and social conditions that represent institutional quality are analyzed. The inefficiency or poorly established key institutions in the host country will adversely affect the operations of the subsidiaries operating under such local conditions. The lack of appropriate market mechanisms for information distribution and the lack of transparency increases the cost of identifying and evaluating a multinational subsidiary as a credible business partner for other players in that market. Furthermore, poorly regulated political and legal institutions limits establishing quality business contracts, potentially leading to an inability to build stable and long-term relationships with local suppliers, which will impede the exchange and distribution of goods and services (Pattnaik, Choe & Singh, 2015).

Institutional distance can also be seen as the extent of institutional differences between the country of origin and the host country. Institutional distance is based on the institutional profile of the state, which consists of three dimensions: regulatory, cognitive and normative (Kostova, 1999). Institutional distance provides an explanation for the organizational behavior of multinational sunsidiaries and monitors the operations of subsidiaries in two key aspects: (1) establishing legitimacy in the host country and (2) transferring strategic orientations and organizational practices from the parent company to foreign subsidiary (Kostova & Zaheer, 1999). Edwards and Kuruvilla (2005) imply that the institutional environment of the host country is complex and idiosyncratic and may be an obstacle to the successful transfer of business practices. Hall and Soskice (2001) focused on identifying specific attributes of the institutional setting at the country level, and used the results to explain variations in inter-institutional organizational behaviors and the degree of differences between

institutional environments across countries. Kostova (1999) finally systematized the institutional differences that multinational companies face as institutional distance; the greater the difference between the institutional environment of the host country and the country of origin, the more severe are the difficulties in transferring and establishing organizational business.

Institutional infrastructure is often subject to layering processes (Mahoney & Thelen, 2010), that is, new institutions are added to existing previous institutions and can be potentially revived or used for new purposes. This conclusion offered a perspective on how institutional environments are characterized by a multitude of different institutional logics and interpretations of the environment (Thornton & Ocasio, 2008). When these logics coincide or are ambiguous they can create multinational enterprises a strategic opportunity and a solution for overcoming distances, creating patterns of behavior that have hitherto deviated from the host country's standard business practices (Jackson, 2010).

The resources offered by the institutional context of the host country provide MNCs with the opportunity to use, reinterpret, or adapt behavior to overcome institutional distance and to shape behavior acceptable in the host country. However, over-availability of resources can adversely affect the overcoming of institutional distance precisely because of institutional complexity and the “pluralistic institutional environment” of which Micelotta and associates (2017) wrote, concluding that institutional plurality makes it difficult to assimilate and engage in institutional change.

The formal regulatory component of institutional distance influences the increase in the cost of learning the "rules of the game" in international business and the new environment. Multinational subsidiaries face a liability of foreigness that is likely to act as a source of competitive disadvantage for a multinational enterprise (Eden & Miller, 2006). Although the tendency in some industries is to standardize business practices to reduce the effect of institutional differences across countries (Larsen & Manning, 2015), institutional distance influences important strategic decisions such as business expansion locations (Schwens et al., 2011), ownership issues (Eden and Miller, 2004), and the analysis of business performance of foreign affiliates (Gaur & Lu, 2007).

Gaur and Lu (2007) argue that while there are potentially negative effects on a subsidiary operating in a country with different regulatory institutions, remote regulatory environments provide opportunities for institutional arbitrage. For example, in the United States, many multinational companies with originally weak regulatory contexts in the country of origin set up R&D centers to benefit from well-placed intellectual property protection contracts. However, in cases of perceived high levels of institutional distance, Gaur and Lu (2007) argue that the scope of such arbitrage becomes narrower, resulting in a decrease in competitive advantage. As regulatory institutional distance increases, subsidiaries face an institutional distance where they cannot find an adequate solution and where relational dangers are too high and ultimately adversely affect the performance of the subsidiary.

Differences in formal institutions, such as laws and regulations, and the implementatin, as well as differences in informal institutions such as norms and cognitions that result from cultural differences (Peng et al., 2009) affect the organizational behavior of multinational subsidiaries. Institutional theory assumes that "regulatory" differences between countries will increase the "foreigner" characteristics of subsidiary and increase the cost of learning the "rules of the game" (North, 1991). Differences also arise from the different types and characteristics of business systems between countries that affect the way capital and labor are organized and controlled, managed by economic exchanges and competing interests, and state policies affect economic activities, the financial system and education systems..

3. OVERVIEW OF THE MOST SIGNIFICANT RESEARCH

Recent empirical research has conceptualized institutional distance as a multidimensional construct given the complexity of the institutional environment (Fortwenge, 2016). Researchers have shifted their interest towards defining the dimensions and attributes of the institutional environment that are critical to international business and the behavior of MNCs. Countries differ in the way companies coordinate business activities, and institutions vary in strength, so institutional pressures also appear at different intensities. Furthermore, institutions are different globally and internationally; even geographically close countries often have significantly different institutional environments. The latter is increasingly approached to understand the institutional environment as one that offers a particular source of resources for strategic opportunities and is no longer seen solely as a limiting factor (Dörrenbācher & Geppert, 2017).

The degree of institutional distance is usually calculated by summing the specific values of the cognitive, normative and regulatory dimensions that represent a particular institutional environment (Kostova, 1999): the greater the distance between the two countries, the greater and negative is the effect of the distance (Kostova & Roth, 2002). This perspective of institutional distance has proved significant as it explains the burning problems of international business such as why MNCs have difficulty transferring business practices to subsidiaries (Kostova & Roth, 2002), but does not provide explanation for how and why institutional distance between the two countries is so significant for transfer of practices.

Jackson and Deeg (2008) conclude that institutional distance also affects the difference in terms of coordinating business activities in a particular institutional setting. Ahmadjian (2016) points out that the specifics of countries are characterized by a certain societal logic. Institutional distance is often shown only as the difference between the institutional infrastructures of the two countries. What this perspective lacks is a reflection on how institutions can weaken or more severely restrict organizational behavior, and that institutionalization must necessarily be scaled; the varying degrees of

power of institutions differently affect the behavior of international subsidiary, so context is very important to observe (Faulconbridge & Muzio, 2015).

The Shirodkar and Konara (2017) study comprehensively analyzes the impact of formal institutional distance on the performance of multinational subsidiaries, and is driven by the increasing development and increasing influence that primarily formal institutions have on the institutional distance and multinational affiliate performance. The subsidiary's performance, as the dependent variable, was measured by the return on equity (ROE). The latent variable, formal institutional distance between the host country of the subsidiary and the parent company, was measured by the Dow index, the Kaufmann index, the Hoth index and the indices proposed by the International Country Risk Guide. Ownership was measured using dummy variables that take a value of 1 in case of wholly-owned subsidiary (i.e. 100% ownership) and 0 if the company is partially foreign-owned with at least a 10% interest. Experience in the host country was measured in years that subsidiary was present in the countries observed.

In the first hypothesis, they propose that greater formal institutional distance will negatively affect the performance of subsidiaries of MNCs in emerging markets. The hypothesis was accepted by results from 17 different countries showing that formal institutional distance was significantly negatively correlated with the performance of subsidiaries operating in Central and Eastern Europe. They conclude that new markets create an environment where differences between the regulatory framework of the host country and the country of origin sublimate the characteristics of the foreigner. The results also confirm that new markets represent a unique context in which potential opportunities are arising from differences in institutions, as some authors have argued, are not directly linked to achieving competitive advantage.

The second hypothesis assumes that the negative effect of the formal institutional distance on subsidiary performance may be partially mitigated by a partial subsidiary ownership. They conclude that the negative effect of formal institutional distance on subsidiary performance is stronger for wholly-owned subsidiaries, whereas for partially domestic-owned subsidiaries, this effect is not statistically significant, leading to diametrically opposite conclusions from those studies that use a (too) general context (exploring only one country of origin: Japan) and argued that the full ownership option improved the survival rate of subsidiaries in an institutionally distant context (Gaur & Lu, 2007).

Third hypothesis assumes that the negative effect of formal institutional distance can be mitigated with greater experience of the subsidiary in the host country, and the results supported the hypothesis. Institutional distance has a strong negative impact on the activity of new subsidiaries in the market, and this negative effect diminishes over time and with the longer presence of the subsidiary in the new environment. Although previous studies have theorized that experience decreases with liability of foreigness, these authors were the first to empirically prove it. This is confirmed and

elaborated that with greater experience and knowledge acquired by the subsidiaries they would be perceived as legitimate and would incorporate into the social and political contexts of the host countries, which will ultimately have a positive impact on the affiliates' business performance.

Salomon and Wu (2012) argue that foreign companies from institutionally distant countries use experience to learn more about the institutional environment of the host country and, as a result, do not need to rely on imitation of the firm's domestic strategies in order to reduce foreigner characteristics; specifically they are interested in how two forms of experience, domestic competition and parent company experience, shape the impact of institutional distance on local isomorphism, and select U.S. bank branches from 1978 to 2006 as a sample.

The US banking industry is highly regulated and banks are facing strong pressures to adapt to the institutional environment (Miller & Eden, 2006). Banks are not only influenced by regulatory component of the environment, but they must also be keenly aware of the fact that legitimacy has been attained, so authors Salomon and Wu conclude that this industry offers an appropriate environment for studying isomorphic foreign enterprise strategies. In particular, they argue that foreign firms from institutionally distant countries are more likely to adopt a local isomorphism strategy in order to gain legitimacy and mitigate the liability of foreigness, and the authors apply a multidimensional approach since previous research has focused on looking at only one dimension and its impact on organizational behavior.

They use an isomorphic local strategy as a dependent variable which they measure as similarity between the asset portfolios of a foreign bank and a domestic US bank on an annual basis. Measurements of banks' asset portfolios are categorized by Miller and Eden (2006) based on their distribution into eight categories: commercial loans, real estate loans, consumer credit, other loans and leases, cash, overnight loans, securities and fixed assets. They set the institutional distance as an independent variable and apply a multidimensional measurement approach. Institutional distance is measured through: cultural distance using Hofstede's dimensions of culture; they measured the economic distance by financial market orientation using the ratio of market capitalization to GDP divided by the ratio of bank loans to the private sector and GDP; regulatory distance is measured through bank regulations, banking regulations, competition rules and capital rules, and the authors set their own measure of regulatory distance; they measured political distance as the absolute value of the CHECKS index, which captures the total level of political volatility within the country and measures the number of veto participants, assuming that more veto players will mean more rigorous verifications and controls, which will also affect predictability political environment between the country of origin of the foreign bank and the United States. To measure the ability of foreign bank subsidiaries to gain experience by learning from their home country competitors, the authors create a measure that captures the experience of banks from the same homeland based on the time of competitors' presence in the observed statistical area; they defined competition experience as "the cumulative years of experience that banks from the same homeland have in the same statistical area at

time t". Since a bank may open banking institutes before establishing a branch, it is possible that experience prior to establishing a branch may help in opening the first branch. In addition, as the measure of the firm's own business experience varies over time, it covers additional banking institutions established by the bank after opening a branch, since a bank with more institutes can use its understanding of the local market to change its business strategy.

The authors hypothesize that the difficulties of doing business in the host country are likely to increase with the institutional distance between the host and the country of origin, and as a result, are more likely to opt for local isomorphism as a mitigating strategy to gain legitimacy. In line with this hypothesis, they conclude that the foreign bank strategy adopted is similar to that of local US banks, as cultural, economic and regulatory distances between the country of origin and specifically the United States of America increase. But they cannot conclude the same for a measure of political distance, citing as a possible reason that foreign firms do not use local isomorphism to mitigate the influence of political distance. Nevertheless, the results generally support the assumption that institutional distance influences the chosen business strategy of foreign firms. They further hypothesize that applying the experience of foreign firms from institutionally distant countries (domestic competitors and their own enterprise operations) will benefit more than those firms of institutionally similar countries that enjoy the privilege of less reliance on isomorphic local strategies. Empirical results neither systematically supported these hypotheses, nor that the experience of institutionally distant countries would direct or influence local isomorphism.

This suggests that the strategies used by foreign companies are relatively sustainable and resilient; in the long run, institutional distance influences strategic commitment given that companies are faced with initial strategic commitments that must be fulfilled. However, it has been empirically confirmed that the experience of owning a business has an impact on cultural distance, implying that companies can blend in with the local cultural environment, as accumulating experience and increasing understanding of the local environment provides some breadth in strategy selection.

The research of Solomon and Wu (2012) is a multiple contributor to the institutional literature: the research proves that there is significant heterogeneity in isomorphic strategies, and the results suggest that local isomorphism strategies do not suit all firms equally; foreign companies from more remote institutional environments will find it useful to imitate local competitors. Furthermore, this research examines the impact of institutional distance on the specific operational decisions that companies make in the host country; research to date has examined the impact of institutional distance on site selection or market entry strategy, however, this is the first study to directly contrast institutional distance and local institutional isomorphism. Finally, with this research, institutional distance was analyzed as a multidimensional construct, while the research to date has largely examined one dimension: the cultural, economic or political dimension separately.

Finally, the results of this research suggest that institutional distance influences the final

choice of a foreign firms' strategy and that in the future, institutional distance should be viewed as a multidimensional construct. More precisely, research indicates that while a local isomorphism strategy may help firms (especially managers) from institutionally distant countries to quickly establish legitimacy, managers must be aware that such a commitment potentially imposes a specific strategic direction on future business, since adopting a local isomorphism strategy in the short term may limit the ability enterprises in further progress.

4. CONCLUSION

Looking at multinational companies from an organizational structure perspective, management is a complex task. Geographic distribution contributes to difficult coordination. Since multinational companies operate in at least two markets, they must comply with each of the regulatory requirements, legal frameworks, and each country's legal system is unique and specific. Geographical distribution implies a significant difference in legal systems and non-market institutions. The structures and practices of corporate governance can therefore vary considerably. The complexity of the international environment is also compounded by the fact that the international legal relationship is not clearly defined especially in the segments of jurisdiction, extraterritoriality, protection of intellectual property and in the segment of bribery and corruption.

Institutional distance is a key concept in international business and research since it can be argued that international management is indeed distance management. The interest in institutional distance does not diminish despite sensitization and a stronger interest in managing sociocultural differences, which undoubtedly means that distance will continue to be an important construct when managing and studying multinational affiliates.

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JCGIRM Journal of Corporate Governance, Insurance, and Risk Management (JCGIRM)
20XX, Volume 7, Series 1

pp 25-38

Increasing tourism through social entrepreneurship – the case of Croatia

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ABSTRACT

Social entrepreneurship is a relatively new topic of interest within the academic and the literature on it is limited. With the increase of interest in recent years from various interest groups the concept of social enterprise has become more widespread. The purpose of this paper is to explore the link between social entrepreneurship and voluntourism, as one of the types of special interest tourism. Voluntourism, according to the concept of sustainable community development, relate all the stakeholders of such development. Moreover, social entrepreneurship could become an important vehicle for sustainable development of destinations. This paper proposes that niche tourism products and more specifically, voluntourism projects, under the prism of social entrepreneurship, can become the means towards Croatian product diversification and long-term environmental, social and economic sustainability. Quantitative research was conducted and the methodology entails a case study approach. Results indicate that there are limited number of projects concerning social entrepreneurship in voluntourism in Croatia and also that discussed projects are not recognized. This study assessed the situation in Croatia and although it was comprehensive under conditions of limited data availability, it cannot speak to social entrepreneurship in voluntourism globally, but it can offer foundation for future research in this area.

ARTICLE INFO

Keywords: social entrepreneurship, voluntourism, sustainability, case of Croatia

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Article history:
Received 15 01 2020
Revised 10 02 2020
Accepted 22 03 2020

This article was presented at the 8th International OFEL Conference on Governance, Management and Entrepreneurship. From Corporations to Social Entrepreneurs: Exploring the Different Faces of Social Innovation (April 17th - 18th, 2020, Dubrovnik, Croatia, Governance Research and Development Centre CIRU), Zagreb, pp. 79-90

1. INTRODUCTION

Social entrepreneurship incorporates innovative thinking and creative conceptualization to spread improvements in a social context, in contrast to individual entrepreneurship. Still, it is a relatively new topic of interest within the academic and the literature on it is limited. This paper tries to explain the relationship between social entrepreneurship and voluntourism, as one of the types of special interest tourism, and their mutual impact on sustainable community development. This is accomplished through a critical analysis of the literature on social entrepreneurship in order to understand the possible link with voluntourism and community development and also to examine the Croatian context in this matter.

In other words, this paper proposes that niche tourism products and more specifically, voluntourism projects, under the prism of social entrepreneurship, can become the means towards Croatian product diversification and long-term environmental, social and economic sustainability. Quantitative research was conducted and the methodology entails a case study approach that includes a thorough review of the related literature and of any existing Croatian sources of social entrepreneurship in voluntourism projects to determine the state of the Croatian industry in this regard. To illustrate how social entrepreneurship along with voluntourism practice can encourage sustainable development of local community, a conceptual framework integrating the mentioned concepts is proposed.

2. SOCIAL ENTREPRENEURSHIP AND SOCIAL ENTREPRENEUR

During the last fifteen years, there is a growing acknowledgement of social entrepreneurship, and social enterprises in particular, on a local, national and international level, in comparison to previous decades where the concepts were less discussed (Defourny and Nyssens, 2010). According to research presented by Weerawardena and Mort (2006) there is a plethora of definitions and interpretations around the term social entrepreneurship. Some authors speculate that social entrepreneurship is only an idea of solving social problems using business methods (Peredo and McLean, 2006; Austin et al., 2006), while others believe that social entrepreneurship is just a nonprofit activity (Williams and K'nife, 2012). Dacin et al. (2010) counted 37 definitions of social entrepreneurship or social entrepreneurs, while Bacq and Janssen (2011) noted 17 different definitions of "social entrepreneurs", 12 definitions of "social entrepreneurship" and 18 definitions of "social enterprise", "social entrepreneurial venture" or "social entrepreneurship organization".

According to Mort et al. (2003), social entrepreneurship is a multidimensional construct involving the expression of entrepreneurially virtuous behavior to achieve the social mission, a coherent unity of purpose and action in the face of moral complexity, the ability to recognize social value-creating opportunities and key decision-making characteristics of innovativeness, proactiveness and risk-taking. Mair and Marti (2006) define social entrepreneurship as a process consisting of the innovative use and combination of resources to explore and exploit opportunities, that aims at catalyzing social change by catering to basic human needs in a sustainable manner. Austin et al. (2006) view social entrepreneurship as an innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors. Zahra et al. (2009) suggest that social entrepreneurship encompasses activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner. Dees (1998) proposed three dimensions of social entrepreneurship: (1) sociability: solving a social problem and creating social value; (2) innovation: being innovative, breaking patterns and changing systems; (3) market orientation: being entrepreneurial, taking advantage of opportunities, accepting risks, being resourceful, and practicing leveraging.

Finally, for the purpose of our research we will use the definition by the Organization for Economic Cooperation and Development (OECD). OECD describe the term social entrepreneurship as the entrepreneurship that has as main goal to address pressing social challenges and meet social needs in an innovative way while serving the general interest and common good for the benefit of the community. In a nutshell, social entrepreneurship targets to social impact primarily rather than profit maximization in their effort to reach the most vulnerable groups and to contribute to inclusive and sustainable growth.

Authors including Dees (1998), Light (2006), Mair and Martí (2006), and Martin and Osberg (2007) concluded in their papers that all definitions of social entrepreneurship focus on four key factors: first one is the characteristics of individual social entrepreneurs, second one is their operating sector, third one is the resources used by social entrepreneurs, and the last fourth one is the primary mission and outcomes associated with the social entrepreneur.

One of the most commonly used definitions about social entrepreneur was provided by Dees (1998). Dess (1998) define social entrepreneurs as change agents in the social sector. Social entrepreneur by Dess (1998) is someone who plays the role of change agents in the social sector by: (1) adopting a mission to create and sustain social value (not just private value); (2) recognizing and relentlessly pursuing new opportunities to serve that mission; (3) engaging in a process of continuous innovation, adaptation, and learning; (4) acting boldly without being limited by resources currently in hand, and (5) exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created. Brinckerhoff (2000) defines social entrepreneurs as those, who: (1) are willing to take reasonable risk on behalf of the people that their organization serves; (2) are constantly looking for new ways to serve their constituencies and add value to existing services; (3) understand that all resource allocations are really stewardship investments; (4) always keep mission first, but know that without money, there is no mission output. According to the Dess (2008) and Brinckerhoff (2000) literature review, about social entrepreneur we find out these three components in common: (1) entrepreneurship spirit; (2) personality and (3) social value.

2.1 Social entrepreneurship in Croatia

Social entrepreneurship in Croatia is a rather new phenomenon and is still poorly developed. The term appeared in the public discourse rather late, in 2006, and since then has increased to the point where a strategy for social entrepreneurship has been initiated. In April 2015 Croatia adopted a Strategy for Social Entrepreneurship Development in the Republic of Croatia for the period 2015-2020, which introduced a new definition of social enterprise. In the document social entrepreneurship is defined as: business based on the principles of social, environmental and economic sustainability, in which generated profit is entirely or largely reinvested for the benefit of the community. Today, almost five years after the adoption of the Strategy we can conclude that theory has not been followed by practical implementation. The present state of the development of the social entrepreneurship in

Croatia is reflected in the passive approach towards meeting the Strategy objectives, the lack of institutional infrastructure and legal framework, and the lack of long-term financial support that would ensure stability and planned development of the sector (Šimleša et al., 2019).

Even if social entrepreneurship in Croatia is still in its early stage of development, it is dominantly generated by the associations, particularly since 2014 when new legislation (Law on Associations, Official Gazette 70/2014) opened that sector for commercial activities, with the social aspect being the dominant one. The number of social entrepreneurship actors is shown in the table below, along with their distribution according to their legal status.

It is evident from Table 1. that the number of Social entrepreneurship actors in Croatia is growing, especially among associations and cooperatives (Šimleša, Puđak and Bušljeta Tonković, 2019). Still, scientific institutions in Croatia1have to support more development of education and awareness of social entrepreneurship.

Having taken into consideration the fact that there is small number of empirical research in social entrepreneurship in Croatia, we decided to conduct one to explore the link between social entrepreneurship and voluntourism, as one of the types of special interest tourism, and to examine the Croatian context in this regard.

Table 1. Social entrepreneurship actors (2013, 2014, 2015)

Legal entity	2013.	2014.	2015.
Associations	45	44	57
Cooperatives	36	31	39
Companies	13	13	15
Institutions	1	2	1
Total	95	90	112

Source: Šimleša, D., Puđak, J. and Bušljeta Tonković, A. (2019). Social Entrepreneurship in Croatia: Its Future, the Actors Database, and the Strategy // Social Entrepreneurship in South East Europe - Three Countries Analysis / Šimleša, Dražen (ur.). Zagreb: Institut društvenih znanosti Ivo Pilar, 27-44.

3. SUSTAINABLE TOURISM DEVELOPMENT

Tourism, as one of the most significant phenomena of modern society, is at the same time one of the world's largest industries and hence the main form of global economic expansion (Fletcher et al., 2019). According to UNWTO (2019), the tourism industry is forecasted to continue to grow dramatically in the future based on the development aspirations of many low- and high-income countries alike. However, despite the fact that tourism is recognized as a vital contributor to job and

1 Scientific institutions in Croatia that supported development of social entrepreneurship are: Faculty of Law, University of Zagreb – the Chair of Social Policy; Faculty of Economics, University of Osijek; University of Applied Sciences VERN in Zagreb; Zagreb School of Economics and Management; and Faculty of Economics and Tourism "Dr. Mijo Mirković" in Pula (EMS, 2014).

wealth creation, economic growth, environmental protection and poverty alleviation, its negative effects at a social, environmental and economic level are increasingly emphasized. This is the reason why the tourism industry should be paid attention in order to ensure sustainable development.

The most commonly cited definition of sustainable development, which is often transmitted to the sustainable development of tourism, presupposes development that meets the needs of the present without compromising the ability of future generations to meet their own needs. UNEP & WTO (2005) defined sustainable tourism more precisely as tourism that take full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and the host communities.

The fragmented nature of the tourism industry requires necessity of coordination and collaboration of many different stakeholders that have interests in the process of tourism development. The stakeholder in the tourism industry is implied as anyone who is impacted on by development positively or negatively, and as a result it reduces potential conflict between the tourists and host community by involving the latter in shaping the way in which tourism develops (Aas et al., 2005). According to Heitmann (2010), stakeholders fall into different categories depending on their levels of interest and their potential to influence in the decision-making process of the tourism destination.

It seems that local community is the main stakeholder in the sustainable tourism development process. The full involvement of local communities in the tourism sector, not only benefits them and the environment in general, but also improves the quality of the tourism experience. Local communities benefit from sustainable tourism through economic development, job creation, and infrastructure development. Tourism revenues bring economic growth and prosperity to attractive tourist destinations which can raise the standard of living in destination communities. Increase in tourism revenue to a destination acts as a driver for the development of increased infrastructure. As tourist demands increase in a destination, a more robust infrastructure is needed to support the needs of both the tourism industry and the local community. Projects imposed from outside and motivated by the pursuit of rapid economic growth often override local needs, conditions and resources, and result in unacceptable environmental, social and cultural costs (Kilipiris, 2005).

However, a variety of stakeholders can and should play the role in the development and implementation of sustainable development in the tourism sector. The private sector is responsible for producing and sustaining quality tourism products and services such as accommodation, food and beverages, local tours, transportation facilities, and recreational activities (Turker et al., 2016). It is the bearer of tourism development in general, so it wouldn't be possible to develop sustainable tourism without it.

Governments of the states which determine the rules of conduct by law are the most important in shaping sustainable tourism policy (Nsizwazikhona et al., 2015). It should be noted the influence of government institutions on change encouraging through incentives such as tax breaks or changes in the legal framework. But, a primary challenge for local governance both today and in decades ahead, is to

steer increasingly external, global forces on local development so that development achieves the shared vision of the local population. However, if tourism development by the government of a particular destination is not aligned with the wishes and needs of the local population by legal and other regulations, it is possible to expect the local population's resistance to tourism development.

Also, non-governmental organizations are one of the stakeholders in supporting sustainable tourism development. They can be involved in the provision of consultancy services in designing campaigns, investment projects or gaining public support for a series of particular causes (Iorgulescu et al., 2005).

4. VOLUNTOURISM – A SUSTAINABLE FORM OF TOURISM

On the global scale, voluntourism is one of the fastest growing examples of alternative travel experiences that respects dimensions of sustainable tourism. Voluntourism can be viewed as a development strategy leading to sustainable development through balance between natural resource qualities, local community and the visitor that all benefit from tourism activity (Butcher et al., 2010).

Voluntourism can be considered as an integrated organized combination of volunteer service at tourist destination and specific tourism activities, which are performed in one’s spare time, out of a place of residence, in home country or abroad and that is beneficial not only for voluntourists, but also for local communities and the environment (Pompurová et al., 2018). The volunteer tourist pays for the costs of his travel and stay in the destination and moreover the fee for the opportunity to be involved in project. Unlike volunteers who participate in volunteer projects in their local communities, volunteer tourists leave a mark in communities that are often far from their homes, they work in an unfamiliar environment that involves new people, unknown or lesser-known cultures, a different tradition and different living conditions. Volunteer tourists through well-organized volunteer programs help to provide basic services that are lacking or not sufficiently available in the local community, mobilize people and influence changes and attitudes in areas such as environmental protection or sustainable consumption, and strengthen capacities by transferring knowledge and experience.

The direct benefits of the local community are reflected in the increased manpower engaged on programs that aims the needs of the community itself, as well as direct financial support through placements, while the indirect benefits include increased local employment and improved quality of public facilities and infrastructure (Morgan, 2012). Volunteering helps to activate local communities by involving people in the planning and implementation of sustainable development goals, but also contributes to the local economy as volunteers spend part of their time getting to know the area they are in.

Volunteering also provides new opportunities for tourism companies. The development of voluntourism creates the need for partnerships beyond the traditional tourist supply chain participants (i.e. accommodation providers, airline companies etc). We need to emphasize the important role of tour operators and travel agencies that offer travelers an opportunity to participate in an optional

excursion that has a volunteer component, as well as cultural exchange with locals (Wearing, et al., 2013). On the other side they should actively participate, in partnership with local NGOs, not only in promotion and distribution, but also in creating volunteer products. It allows them to stay in touch with large segment of voluntourist consumers while also enable them that both the local community and their customers recognize them as a company that is active in the area of corporate social responsibility. However, because of commercial component of volunteer programs, the critiques of voluntourism often arise, aimed not only at exploiting the local population for the purpose of achieving personal goals through short-term tourism-motivated engagement, but also at targeting profit rather than community well-being (Verardi, 2013).

Conducted research in the field of voluntourism mostly investigate environmental, humanitarian and development projects in less developed countries, whose cultures are significantly different from voluntourists' cultures. However, the perception of voluntourism as a combination of travel and volunteering only in developing countries is short-sighted and too simplistic owing to the diverse array of opportunities available in today's market (Pompurová et al., 2018). Voluntourism projects in developed countries are becoming more and more popular. They create opportunities for collaboration of different stakeholders in the local community, and they can include different segments: teaching, conservation, preserving tradition, protection of cultural heritage, research etc.

4.1 Tourism social entrepreneurship – support for the development of voluntourism

For the successful development of any tourism product, it is necessary to understand its complex structure. Kotler (2001) defined a product as any offering that can satisfy a need or want, such as one of the 10 basic offerings of goods, services, experiences, events, persons, places, properties, organizations, information, and ideas. Applying this concept to a tourism product, it can be differentiated as: material products (guides, maps, souvenirs), services (transport, gastronomy, recreational services etc.), local tourism facilities (castles, churches, monuments, museums, recreational centers), events (exhibitions, cultural events, sports championships, even sightseeing with a guide), personalities and groupings (i.e. famous residents or their birthplaces, characteristic ethnic groups, artists), thematic trails (walking, cycling, water trails), places (viewpoints, national parks, landscapes) and finally "ideas" (exploring the cultures of other nations, living and resting closer to nature). All these product categories are destination related and they jointly connect to create the complex final product (Lipianin-Zontek, et al., 2017).

The biggest challenge in developing a tourism product stems from the fact that some different enterprises are responsible for each component of a complex tourism product, giving tourism enterprises a critical role in delivering desired community development outcomes. Since the implementation of the traditional profit-oriented approach to entrepreneurship in tourism has shown numerous negative effects on the local community and the environment, the pursue of new social values and inducing societal transformation at large, leads to the development of the concept of social

entrepreneurship and its application in tourism. Since social entrepreneurship is designed to facilitate social value creation, social innovation and sustainability, the tourism industry is a rich ground for social entrepreneurs (Aquino et al., 2018). This is especially true for niches such as voluntourism, social tourism or cultural heritage tourism, that are the result of the vision to foster innovative and, more importantly, sustainable tourism practices that balance the economic, social, cultural and environmental outcomes for local communities.

Social tourism entrepreneurs are defined as those who conduct tourism business activities that inspire and encourage local communities to participate in carrying out business activities travel. Here there is a strong effort from one to change himself and others by doing tourism business activities (Reindrawati, 2018). It is represented by the establishment of the innovative environment, which ensures tourism entrepreneurial projects that do not present value added only for the tourist, but also for all the local stakeholders (Alkier et al., 2017).

Due to the complex structure of the tourist product and the specific way of selling it on the market, implementation of social entrepreneurship in tourism requires social enterprises that offer a variety of products and services while also implementing social innovation strategies. Day and Mody (2017) categorize tourism social enterprises into three types based on enterprises' functions, roles, contributions and product offerings within the tourism value chain. The first type relates to a "suppliers to the tourism experience" and it includes tourism social enterprises that offer tangible products (e.g. food, souvenirs) to tourists. Often, this type adopts a social innovation where technical expertise is transferred to community beneficiaries in order to develop the local skills and knowledge to produce such goods.

The second type includes a "providers of the tourism experience", respectively social entrepreneurs which organize and involve the wider community, identify community needs, and develop local capacity to address these needs through human resource development and tourism training. And the last type refers to an "intermediaries of the tourism experience". They involve travel-market intermediaries (e.g. travel agencies) which sell sustainable tourism products and thus promote and educate travelers in more responsible tourism practices, emphasize the need to change travel behavior, and support social causes at the respective destinations they 'sell'. These social enterprises exist to influence public views on social issues through their commercial activities (Aquino et al., 2018).

From the above, it is evident that the opportunities for the implementation of social entrepreneurship in tourism are huge, so different local communities can cherish different examples of social entrepreneurs who contribute to the development of tourism products each in their own way, but also different forms of collaboration with other stakeholders in the community. In that regard, the conceptual framework proposed in this paper is developed from the described concepts of sustainable community development, social entrepreneurship and voluntourism, as shown in Figure 1.

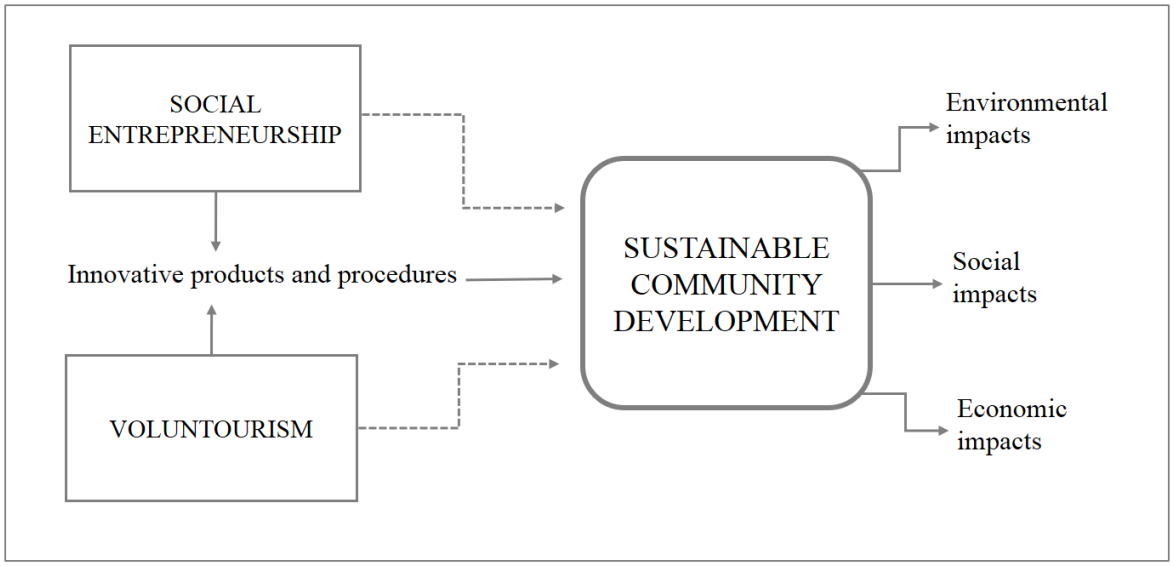

Figure 1. Social entrepreneurship and voluntourism impact on sustainable community development: A conceptual framework proposition

4.2 The role of social entrepreneurs in the development of volunteerism: The case of Croatia

Croatia has been an unavoidable tourist destination for many travelers from all over the world in recent years. This is evidenced by data from the Croatian Bureau of Statistics (2019), which registered nearly 90 million overnight stays in 2018. However, the data also show that more than 85% of the total overnight stays were realized in the four months of the peak season. This indicates that the dominant model of tourism development is still summer bathing tourism with marked mass characteristics. Considering all the negative effects arising from the development of this tourism model, it is evident that there is a need to develop an alternative tourism model that will support sustainable development. One of the alternative models of tourism development are focused on selective forms of tourism, and this paper analyzes the contribution of social entrepreneurship to the development of voluntourism in the Republic of Croatia.

Although there is great potential for the development of voluntourism products, since, on the one hand, there is a need for local communities to involve more people with volunteer preferences, and on the other, there is a growing interest of tourists for this type of holiday, the development of volunteer products in Croatia is relatively modest.

The pioneering project of raising public awareness about the possibilities of development voluntourism products in Croatia, with an emphasis on finding and connecting stakeholders who could support its development, was carried out by the MI-Split Association in cooperation with partners. The project „Open up borders for adventure and new travel opportunities" was designed for organizations operating in the field of tourism, non-profit civil society organizations and representatives of local administrative units, and implemented under the EU program on cross-border IPA component II, the Program on Cross-Border Cooperation Croatia – Montenegro 2007 – 2013, and the anticipated

duration of the project was 18 months (from April 2016 to October 2017). The overall objective of the project was to contribute to the promotion of Croatian and Montenegrin tourist potentials as an integral tourist destination, improving the environment for the establishment of new tourism products based on sustainable development of the program area and improvement of social connections in the cross-border area. On the other hand, the specific objective of the project was to strengthen the cooperation between the public, profit and non-profit sector by developing voluntourism as an innovative and distinctive tourism product on joint tourism territory of Croatian-Montenegrin border areas.

Within the project activities, two workshops were held on volunteering management and social entrepreneurship, as well as development of voluntourism products. Also, the first Croatian Conference on Voluntourism was held on June 2nd 2017 in Dubrovnik, where the voluntourism innovations, best practices, as well as examples and ideas that resulted from the project's activities, were presented. Since one of the objectives of the project was to develop at least two pilot voluntourism products/activities in the cross-border area, three such examples were presented at the conference: Frano Vlašić (Luški puti j.d.o.o.) and Leo Žanetić (Otočki sabor) presented their idea of including tourists in volunteering efforts on the island of Korčula during the summer season, while Julija Milanović from the Animal Welfare Association in Cetinje and Željko Starčević from the Orjen Protection Agency in Herceg Novi presented ideas for voluntourism projects in Montenegro (Matošević Radić, Buljan Barbača, 2018).

Also, in recent years, projects, that have great potential to grow into voluntourism programs, are invented and implemented. For the last few years, the City of Nin has been working with volunteers (biologists and ornithologists) in the fields of 'Solana Nin', where volunteers work as educators on the European Bird Counting event, which aims to inform citizens and tourists and promote the exceptional biodiversity of the salt pans and lagoons. This area is listed in the Natura 2000 habitat, ecological network of nature protection areas for preserving endangered species and habitats. The volunteer role in bird watching involves tourists and all interested (mostly amateur) photographers who come to the lagoon to photograph the birds and then donate the created photos for the purpose of promoting the destination, which are then posted on the destination's Instagram profile (Lekić, 2017). In this way, the satisfaction of tourists and the local community is achieved, and free materials for promotional purposes are obtained, which again has the effect of increasing tourist demand.

An interesting idea for a volontourism product was developed on the island of Korčula, that has an exceptional natural and cultural-historical heritage. One of the interesting features of the island is the drywall, which, in addition to being the boundary between the land plots, is today also nominated as a cultural property of the Republic of Croatia, protected by the Ministry of Culture (Vlašić, 2017). The idea of a volunteer program was triggered by the desire to include tourism activities in the restoration of the Korčula drywall. The itinerary includes a seven-day stay, during which the volunteer tourists will have the opportunity to learn about the history and culture of the island of Korčula

through four days of hiking trips, and then actively participate in a volunteer project of construction and restoration of drywall, mosaic and various sculptures creation related to the island tradition. The project also includes cooperation with the European Ramblers Assocciation (ERA), which promotes and supports all European pedestrian paths, pedestrian walking programs, etc.

For the further development of voluntourism in Croatia, it is necessary to encourage the development of social entrepreneurship, in order to develop products that respect all dimensions of sustainable tourism development. The presented examples show that there are interested stakeholders on both the suppliers and the providers travel experience, but at least one serious intermediary of the tourism experience is still missing. Its role is crucial, since voluntourism development needs the incorporation of volunteer projects into high quality tourism products that tell the stories about the locals, cultural heritage and rich traditions of the host destination while encouraging both the sustainable development of the local community and the personal development of the voluntoutists.

5. CONCLUSION

This paper proposes that niche tourism products and more specifically, voluntourism projects, under the prism of social entrepreneurship, can become the means towards Croatian product diversification and long-term environmental, social and economic sustainability. Moreover, this paper demonstrated the connection between social entrepreneurship and volutourism and proposed a relatively coarse framework that integrates the effects of voluntourism and social entrepreneurship, through innovative products and procedures, thus affecting the sustainable development of local community through its environmental, social and economic dimension.

This research, in regard to theoretical contribution, has connected the literatures on social entrepreneurship, voluntourism and sustainable development of the local community, thus explaining the conceptual linkage between them. On the other hand, this paper offers practical implications that make contributions to the voluntourism literature, since the lack of implementation of this concept.

The focus was on the Croatian context and results indicate that there are limited number of projects concerning social entrepreneurship in voluntourism in Croatia and also that discussed projects are not recognized or there is a lack of awareness of them. The empirical work was exploratory because of the novelty of the subject and limitations related to data availability. Research assessed the situation in Croatia and although it was comprehensive under mentioned conditions, it cannot speak to social entrepreneurship in voluntourism globally, but it can offer foundation for future research in this area.

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JCGIRM Journal of Corporate Governance, Insurance, and Risk Management (JCGIRM)
2020, Volume 7, Series 1

pp 39-52

Good and transparent management of state-owned companies – reality or utopia?

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ABSTRACT

Certain tasks in the Republic of Slovenia are in the domain of the state or local community. In order to carry out these tasks, state-owned or public companies have been established.
The management of such companies is not always good and transparent, and as a result it often leads to considerable damage to public property. Such situations are mostly caused by poor management by the management boards, and rarely by poor and inadequate control by the supervisory boards. They are also the result of poor and inadequate communication between the management and supervisory boards. Unfortunately, poor governance does not occur in isolated cases and the mismanagement of such companies is often only introduced to the public through affairs that are presented in the media.
There are, however, also some positive exceptions with good and transparent corporate governance that bring profits to the shareholders and, consequently, lower the prices of individual services for citizens.

ARTICLE INFO

Keywords: corporate governance, public companies, good practice

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Article history:
Received 15 01 2020
Revised 10 02 2020
Accepted 22 03 2020

This article was presented at the 8th International OFEL Conference on Governance, Management and Entrepreneurship. From Corporations to Social Entrepreneurs: Exploring the Different Faces of Social Innovation (April 17th - 18th, 2020, Dubrovnik, Croatia, Governance Research and Development Centre CIRU), Zagreb, pp. 79-90

1. INTRODUCTION

Based on the Act on Physical Assets of the State, Regions and Municipalities (Official Gazette of the Republic of Slovenia, No. 14/2007, ZSPDPO) different legal entities governed by public law are recognized in the Republic of Slovenia, i.e., the state, self-governing local communities, public-law institutions, economic public-law institutions, public agencies, public funds and public enterprises. In the following we will focus on the last of these, i.e., public enterprises, hereinafter referred to as JPs.

A JP is a public enterprise that performs one or more different public services on a larger scale and has a monopolistic character (Ivanjko, Š., Kocbek M., Ljubljana, 2003), which can be considered as profitable. It provides public goods, for example, energy and water supply, transport, environmental

protection. It is financed either by the payment of public goods or from the state and municipal budgets, and differently from the interpreters of the Association of Accountants, Financiers and Auditors of Slovenia (2009). JPs primarily run (local) public services for environmental protection. A JP is established as a status form in one of the legally organizational forms of companies in accordance with the Companies Act (ZGD-1) (Official Gazette of the RS, No. 42/2006 (60/2006), 26/2007-ZSDUB , 33/2007-ZSReg-B, 67/2007-ZTFI (100/2007), 10/2008, 68/2008, 23/2009 Odl.US: U-I268 / 06-35, 42/2009 and the Services of General Economic Interest Act (ZGJS) (Official Gazette of the RS, No. 32/1993, 30/1998-ZZLPPO, 127/2006-ZJZP) on the basis of an ordinance adopted by the municipal council of individual municipalities.

There is also the possibility of the privatized performance of economic public services on the basis of concessions, which are not possible for public enterprises.

From this it can be concluded that JPs are generally not stimulated to achieve good business results due to their status form and the fact that the free disposal of profits is no longer in the domain of the JP, but of the owner. In the case of a loss there are more options: the JP usually receives funds from the budget, is recapitalized, the price of the service is subsidized or the owners simply raise the price for the service provided by the JP.

All JPs are considered to be:

- public purchaser
- supervised by the Court of Auditors.

New legislation, which will regulate the position of public enterprises, has been in preparation for several years, but it has not yet come into force, despite the unambiguous findings by the state of the RS itself (State-Owned Corporate Governance Policy, No. 47600-13/2009/5, Ljubljana, 23rd of July 2009). Most JPs, therefore, operate without a desire for good business results, and it is often the case that individual JPs are a source of the non-transparent spending of money and sometimes even criminal acts of management structures. The public tends to be informed when public money has already been spent. In most cases the responsible authorities do not have to bear any consequences for their actions, the complaints on the courts are poorly prepared, it takes too long, and there are mostly no clear convictions of the accused. But nevertheless, there are also examples of good practices where JPs generate good business results, which I will try to show below.

2. PRESENTATION OF THE JP CČN DOMŽALE – KAMNIK D.O.O.

The public enterprise Central Wastewater Treatment Plant Domžale–Kamnik (hereinafter JP CČN DK) is the fourth-largest wastewater treatment plant in Slovenia and has been operating since 1980.

It was established as a part of the Domžale water-supply enterprise and it received its wastewater from the municipalities of Domžale and Kamnik. JP CČN DK was established as an independent business entity in 1990 and covered several municipalities with their own water-supply enterprises. The former municipalities of Domžale and Kamnik were later divided into several municipalities, so

that the CČN DK covered the following municipalities: Domžale, Kamnik, Mengeš, Komenda, Trzin. The municipality of Cerklje na Gorenjskem joined the ownership of JP CČN in 2015. Since November 2015, the following municipalities are the owner of the enterprise: Domžale (39 %), Kamnik (33 %), Mengeš (14 %), Komenda (6 %), Trzin (4 %) and Cerklje na Gorenjskem (2 %). These municipalities are also the owner of the infrastructure facilities of the CČN (Stražar, M.,, 2019b).

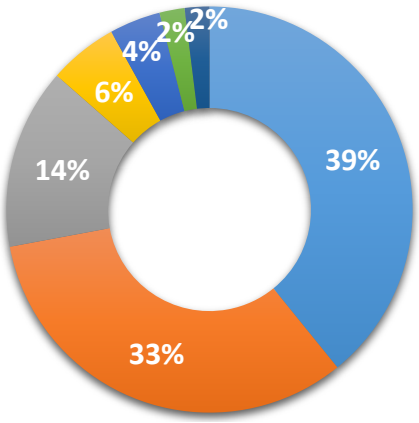

Figure 1: Equity shares of the JP CČN DK

3. Description of the company's activities

The key activity and a priority task of the enterprise JP CČN is "sewerage" (classification number 37,000). The enterprise performs a wastewater-treatment service for the above mentioned six municipalities, which are the owners of the enterprise.

The enterprise was established to support the CČN infrastructure and thus provide a quality wastewater-treatment service in the region. Until today, JP CČN maintains the notion of its basic mission, which is to ensure the quality of urban wastewater treatments at an affordable price. The priority task of the enterprise is economic and efficient urban wastewater and storm-water treatment within the mandatory public utility service (OGJS), which is the responsibility of the municipalities. CČN DK provides services on the basis of the Cleaning Ordinance, the Company Agreement and the Contract for the Lease of Infrastructure Facilities.

In addition to OGJS, JP CČN also performs industrial wastewater treatments, liquid waste treatments as well as intellectual services in these fields in accordance with the business strategy. These additional activities are carried out within the framework of special and market services with the aim of reducing the price of wastewater treatment for citizens as well as increasing the added value of the enterprise based on the surplus revenues achieved by marketing activities in accordance with the MEDO Regulation.

JP CČN performs wastewater treatment at the infrastructure installation (facilities), owned by municipalities. The role of the infrastructural facilities is to enable basic urban wastewater and stormwater treatments within the OGJS. In order to achieve the objectives, it is very important to provide a high-quality infrastructure, which must be fit for purpose and has to be properly maintained and modernized. For the next few decades, this goal was achieved by a successful upgrade in 2017. The reconciliation and dependence of the enterprise and the infrastructure enables an efficient and high-quality cleaning service, which is reflected in the satisfaction of users and owners and, most importantly, in responsible environmental management. In addition, the scope and function of the existing infrastructure also enables the performance of special services on a commercial basis for the external clients, in accordance with the owners' instructions.

A well-maintained infrastructure means the performance of basic and additional activities. The high level of knowledge, experienced employees, and the use of all available methods, analyses and process parameters calculations enable optimal management of the cleaning processes at all levels. Pursuant to the terms of the lease agreement, which regulates business and operational relations between the owners and the tenant, JP CČN performs additional business activities for managing the infrastructure records and prepares reports for the owners. JP CČN pays the owners rent in the amount of infrastructure depreciation and at the same time represents a key process support to the CČN infrastructure and provides an efficient wastewater-treatment service through professional process management.

In addition to OGJS services and special services performed on public infrastructure, the JP CČN experts group also provides marketing services, which are considered as intellectual services and provide additional revenue to the enterprise. These services include, in particular, expert consultancy in the field of wastewater treatment, pilot experiments on the operation of special technological processes, experiments on the decomposition of different substrates, more complex analyses and expert opinions on the efficiency of the processes. The education of wastewater treatment personnel from the whole of Slovenia is one of the activities that brings a high professional reputation with the public as well as financial revenues for the enterprise. The training is provided by the professionally trained staff of JP CČN and partly by foreign lecturers.

4. SUSTAINABLE DEVELOPMENT STRATEGY

In order to achieve the set goals in terms of sustainable development, a working environment has been created where the employees with their engagements and competences are the driving force for the success, growth and development of the enterprise. With diligent work and the personal commitment of the each individual, the group overcomes a narrow mindset and follows a clearly defined path of responsibility towards nature and people at every step. They are committed to high ethical, environmental and work standards, and therefore build partnerships and mutual trust through open peer relationships. In its sustainability program, JP CČN has defined responsible behaviour

towards employees, owners, users and the social and natural environment by integrating ecological, economic and social aspects, which are valued as performance indicators. From the sustainable-development point of view, JP systematically undertakes activities for recognized and socially important factors. Through the sustainable development guidelines, activities are undertaken to raise the enterprise recognition and evaluate investments in ecological and economic indicators. Due to the sensitivity of the CČN system in terms of coexistence with the local environment, its activities are carefully monitored and communicated with the interested public following the principle of a correct relationship with the environment.

The most important goal of the enterprise's activities is to follow sustainable development in all aspects and to act on the principle of social responsibility at all levels of operation. The enterprise is socially responsible to the natural and social environment with the priority goal of maintaining clean water, which is one of the most important basic assets. JP CČN manages the treatment plant, which became, after a successful upgrade, again the leading plant in Slovenia. It follows the important goal of continuous development, complemented by the implementation of basic research tasks for gaining a broad knowledge of the field of wastewater treatment. In addition, they trained operators at all professional levels for wastewater-treatment plants and provide expertises in the field of wastewater treatment. Crucial for maintaining the business success is the risk management, which is achieved by considering and addressing all the critical factors and high-quality process management. The best-possible success in the given circumstances is achieved by a high level of knowledge. Upgrading the CČN infrastructure created conditions for quality process control and ensuring the mission, vision and high goals at the process and business levels. The sustainably oriented and reliable performance of high-quality effluent treatment and the implementation of support processes contributes significantly to ensuring the conditions for healthy living in the natural environment. Thus, they supply users with high-quality services at an affordable price and develop professional solutions to reduce environmental impacts.

The sustainable development guideline incorporates important goals that are pursued on a daily basis. Firstly, the activities are aimed to reducing the environmental impact. The emphasis is on ensuring the quality of the treated water for reducing the impact on the Kamniška Bistrica river and the groundwater. This is achieved through continuous education and increased interdisciplinary skills. Therefore, efforts and resources are being invested in research and development as well as the introduction of modern technologies for the removal of various pollutants from the wastewater. This objective is also pursued through activities that include education, counselling and raising awareness of the local population and legal entities about the importance of reducing water use, treating wastewater and preserving our environment.

The goal of sustainable development is foremost followed by responsibility to employees. In this way we build trust and encourage them to acquire knowledge, which is very important for managing a demanding system, such as a wastewater-treatment plant. Through a transparent and reciprocal

collaboration with the owners a common path is built. The performance of special services means an exception among Slovenian public enterprises, therefore conscientious work in this area also shows responsibility to the users. Due to the high depreciation and higher-quality cleaning services, our residents still pay an acceptable price for the service, which is partially covered by specific activities.

5. UPGRADE IN THE YEAR 2017

In 2017, the upgrade of the infrastructure for tertiary treatment, necessary for the effective implementation of wastewater treatment to the applicable standards, was completed. The treatment plant provided the required level of cleaning over the years and as a part of the upgrade also implemented stricter environmental standards.

The investment in the upgrade amounted to about €15.5 million, where 80 % of the eligible funds came from the EU through the Cohesion Fund. An increased value of fixed assets and depreciation, which represent the rent paid by the enterprise to the infrastructure owners (in this case the six municipalities), is significantly greater than it was before the upgrade. The rental cost is distributed by water gauges to all users and represents the network charge, paid monthly by the users. The network charge is also included in the calculation of the treatment costs for industrial taxpayers. Such a treatment is carried out according to a special methodology where the cost depends on the load and degradability of the individual waste water. Equally, the cost of the network charge is taken into account when calculating the price for receiving liquid waste. The treatment of industrial wastewater and liquid waste does not fall under the category of OGJS, but represents special services, whose revenues reduce the price for their users.

The cost of the service includes the materials and services necessary to achieve the proper quality of the treated water that the CČN discharges into the Kamniška Bistrica river. The cost of wastewater treatment is charged separately and represents the equal amount (in m^3) of drinking water consumed in each household. After the upgrade, the cost of the service increased due to receiving more wastewater for cleaning and providing a greater cleaning effect, the increased consumption of chemicals and energy, increased maintenance and spare parts, and more dehydrated sludge.

Through the implementation of special services and a market approach, CČN DK managed to keep the network charges and the OGJS services below the average of comparable cleaning facilities in Slovenia, despite the upgrading of the infrastructure, which requires higher rent and costs in order to provide an improved cleaning effect. The total cost of the wastewater treatment for the average household thus increased from about €4 per month to about €7 per month, which is below the Slovenian average.

6. MARKET ANALYSIS WITH RISK MANAGEMENT

The company pursues the goal of providing a high-quality service at an affordable price, which is achieved through the additional performance of special and market services that are outside the scope

of the OGJS. Due to the fact that JP CČN does not exclusively carry out activities within the framework of the OGJS, it is exposed to potential business risks that must be taken into account when planning its operations. Revenue and expense risks affecting business stability are managed through an advanced, process and business professional approach, supported by experience and professional knowledge. Effective risk management can crucially contribute to better results and safer performance of the enterprise's primary and supportive activities to ensure a sustainable, business-oriented management with a positive business result at the end of the financial year. Risks are assessed in the management as well as in the operational performance of our activities. High-quality is ensured by the implementation of the ISO 14001 standard, which is constantly upgraded to achieve the desired goals, in accordance with the nature of the enterprise's activities.

In the area of risk, the enterprise has been paying a lot of attention to following new technological approaches and, in recent times, to tightening the legal conditions, which are based on a tendency of increasing environmental protection from all possible aspects. The CČN system operates in accordance with the Environmental Protection Authorization (OVD), which incorporates the Industrial Emission Directive (IED) guidelines and defines the entire JP CČN activity, requiring the system to have an integrated approach and quality management of all environmental risks. In particular, more and more requirements and conditions for investing are emerging from the legislation, which is connected with the introduction of new technologies, more and mandatory monitoring with an increased set of analyses and measurements and upcoming obligations for the extraction of raw materials from individual fractions of the wastewater treatment processes. More importantly, in terms of risks to society, it is worrying that legislation or state authorities are placing more and more restrictions and tightening conditions for the reception of liquid waste by treatment plants. This fact may have a significant impact on the cleaning cost for citizens in the future, which at this time is still low and acceptable only because the company is treating liquid waste.

All identified aspects of the risk are interrelated. Quality assurance is thus crucial, as reflected by the adequacy of the prescribed parameters across all emission sources. Only in the case of quality assurance at all sources and levels we will be able to create the conditions for the intended range of services, which in turn is also linked to market demand. It is only at this stage that any demand can be considered as a business opportunity, which, if successful, is reflected financially. In case of a reduction of the volume of special services, which is the most risky in terms of process and financial planning, it will be necessary to start a timely approach to the price of the wastewater-treatment service for the category of OGJS. Regular monitoring of all aspects related to the operation of processes, business fluctuations and changes in the legislation enables the timely identification of threats to the stability of the enterprise's operations.

The enterprise will continue to manage its resources economically with a sustainable and holistic approach to performing its activities and successful operations. An important concern is cost management and economical use, which is done through regular and careful procurement procedures

and a thorough review of each contract. On the cost side, there is the risk of potential unforeseen events and technological problems in processes that are usually difficult to influence. These risks have been adequately managed in the past and will be expected in the future due to years of experience and good expertise.

In the area of risk, two of the most critical indicators are identified that could have a significant impact on the scope of the operations of the enterprise in the future, i.e., the achievement of environmental requirements and the scope of special services.

Environmental requirements

The successfully completed upgrade of the system has significantly reduced the risk of financial and misdemeanour liability due to the potential non-achievability of legal requirements. In the event of exceeding the parameters at the outflow or outflow of the sub processes, significant risk would arise because the CČN would have a restriction on the acceptance of liquid waste, which would consequently significantly reduce the JP CČN revenues. According to the MEDO Regulation, revenues from special services are taken into account in such a way as to reduce the cost of a particular public service. Due to the interconnectedness and impact of special services revenues on the price of OGJS, there is a risk of uncertainty in the volume of market revenues, which poses a potential risk to the enterprise's operations.

The CČN system operates in accordance with the prescribed values or within the requirements of the environmental permit, which is expected in the future. All process assemblies within the system function properly and the basic wastewater treatment activity is carried out to the intended extent and quality. Due to the complexity and variability of external process conditions, the existing process sets are subject to certain risks, so in the future our main objective will be operationally aimed at managing risks by effectively managing the processes in all conditions and reaching the statutory limit values on all the emission sources.

The wastewater-treatment service, as the main activity and the liquid-waste-treatment service as the support activity, must be provided in a quality and demonstrable manner at all times, which is achieved through regular monitoring and appropriate measuring devices and analyses. Risks in this segment are usually of a technological or technical nature and are managed by a team of experts through a critical appraisal approach and an immediately effective response. Only in this way can the risks of quality assurance, which could seriously jeopardize the business future and consequently have an impact on environmental pollution through increased emissions, be reduced.

Extent of specific services

JP CČN has been engaged in the disposal of liquid waste as a special activity for many years, which is a rarity in wastewater-treatment plants in Slovenia. This advantage has been gained and maintained by being classified as an IED member and obtaining an IED environmental permit. The enterprise has recognized the business potential related to the ecological aspect, which is reflected in the professional approach to solving the problem. This activity, related to the revenues and the cost of

cleaning for the OGJS category, is permitted on the basis of a professional skilled research team and years of experience in managing the processes of wastewater treatment and the disposal of liquid waste. Analytical and experimental procedures have been developed to verify substrates for suitability of reception. Thus, the reception of liquid waste is limited to only certain waste classification numbers that the CČN can accept in accordance with the OVD, with the amount depending on the capacity of the disposal facilities and the possibility of treating these substrates in a process sense. Risks associated with the reception of liquid waste require a timely and effective response to changes in the process conditions and the adaptation of market activities. For this reason, they have developed a base of acceptable substrates and a plan for the scope of services for the future. The specific services segment assesses the scope and type of services, taking into account the potential risks posed by intense competition, the consequent need for price reductions and, in particular, procedural constraints.

The treatment of industrial wastewater and liquid waste falls under the scope of special services, and at individual emission sources, in accordance with the OVD, we are obliged to ensure that the processes ensure adequate quality on the discharge from the installations. Since the limit values for discharges from individual processes (EK and BRO) are very low, there is a certain risk of exceeding the values and, consequently, the prohibition of the acceptance of this wastewater into the CČN system.

Therefore, special attention will be paid to the management of these processes and, with the professional knowledge and the necessary resources, we will ensure that, in the light of new environmental and technological requirements, this waste is enabled. The quantity of services is also very important in the industrial wastewater segment as any failure of an industrial plant means a significant reduction in wastewater volume or the cost of a service would have a significant impact on the price of public services, so there are also some risks in this part. The trend in the scope of industrial wastewater treatment services is difficult to plan with greater certainty, as industrial pollutants cannot be estimated in the long term due to fluctuations in production processes. However, it is important that the upgraded CČN offers the reception of greater volumes and greater loads of wastewater from industrial sources, which is an important fact for industrial users. The planning of the volume of industrial wastewater poses a certain risk in terms of forecasting the quantities and also the cost of the service, which depends on the load of each source of pollution. All major industrial users are contracted and the cost covers the cost of cleaning this category at a profit.

7. REVENUE ANALYSIS

Considering the fact that the company does not work as a classic sewage treatment plant with limited activity solely within the framework of OGJS, but derives a significant part of its revenues from special services, the realization of revenues is more unpredictable and depends on the processing capacity and success of acquiring business in the market.

According to the MEDO Regulation, revenues from users of the cleaning service are divided on the network charge and the cost of running the cleaning service. The network charge is charged to the amount of infrastructure depreciation and the revenue from the treatment service represents the cost of running the wastewater treatment. The amount of revenue from the basic wastewater treatment depends on the volume of quantities accepted for treatment. Revenue is generated only on the basis of a charged amount that is much lower than the amount actually received.

In 2018, revenues from the OGJS category involving households and the municipal wastewater were € 2,137,319, which is an 88 % of increase compared to the previous year. Increased revenues are primarily the result of an increase in the price of the network charge and also of the service, and partly also a consequence of additional connections to the sewer network. Revenues from the category of sewage sludge and sludge cleaning, accounted by the amount of consumed drinking water, were € 121,243, meaning 135 % higher than last year, due to the increase of network charges and services from 1.1.2018.

Revenues from the treatment of industrial wastewater received by the CČN through the sewer network, which represents the category of special activities, were € 1,285,808, which is 4 % less than in the previous year. Revenues of this category under the invoiced price fully cover their own price, including the network charge. Revenues from special driveway activities totalled € 695,005 in 2018, an increase of 29 % over the previous year. The increased revenues are mainly due to the increased cost for the provision of these services by JP CČN. The volume of quantities accepted that do not represent the activities of the OGJS is crucial to ensuring sufficient revenue to fully cover the cleaning service. According to the MEDO Regulation, revenues from special activities, if carried out on infrastructure, must cover the loss of revenue due to the failure to reach its own price at the OGJS. This means that in the case of reduced volumes and revenues from specific activities, the cleaning price of the OGJS category will have to be increased to the level of its own price.

Total revenue from all the above categories and from marketing services amounted to € 4,379,555, which is 32 % more than in the previous year. The increase in revenues can be seen primarily in the category of OGJS, where, despite the increase in the beginning of 2018, the sales price of the service and network charges is still much lower than its own price, since the loss of revenue is covered by revenues from special services.

The following is a graphically presented share of wastewater by source in 2018, which shows a clear difference between the percentages of received wastewater and the revenue from these quantities, which is significantly higher for special services compared to the category of OGJS. The following is a table of financial output by category and municipality for 2018, compared to 2017. Further, a table of revenue from the network charge by municipality for 2018 is presented.

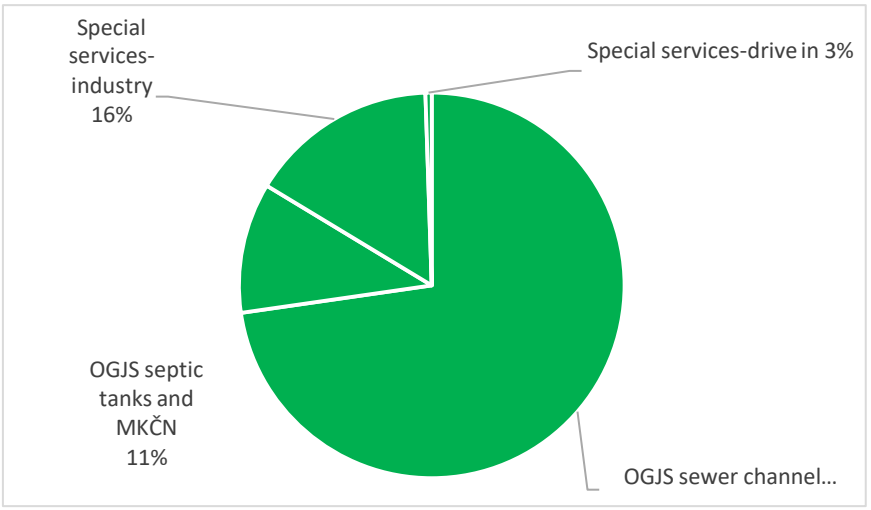

Figure 2: Percentage of calculated wastewater quantity by sources in m^3

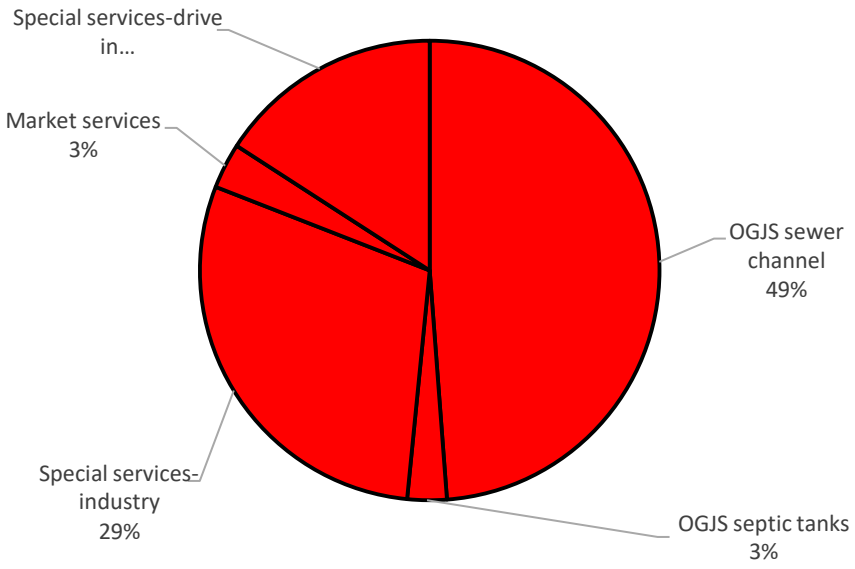

Figure 3: Share of operating income by source in EUR

8. PERFORMANCE APPRAISAL AND PERFORMANCE INDICATORS OF THE COMPANY

Table 1 (Stražar, M. 2019a) presents a comparison of business results for 2017 and 2018. The increase of operating income and net profit is clearly evident. The latter represents almost 9.5 % of the value of revenue for 2018, which is an extraordinary result for a public enterprise.

(EUR)	Achieved 2018	Share (%)	Planned 2018	Comparison achieved/ planned 18	Achieved2017	Share (%)	Comparison 18/17
Overall operating income	4.387.817	99,69	4.126.171	106,34	3.329.662	98,89	131,78
Overall Turnover	4.401.673	100,00	4.127.171	106,65	3.366.874	100,00	130,73
Total expenses	3.889.549	100,00	3.996.873	97,31	3.036.276	100,00	128,10
Net profit	417.601	100,00	105.541	395,68	271.979	100,00	153,54

Table 1: Comparison of business results

Business and financial performance indicators of the company

Below is a comparison of JP CČN's business results and the average of the industry sector using indicators of accelerated coverage of short-term liabilities, operating efficiency and average monthly salary per employee, published by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (2020). Industry sector E 37 - sewage treatment is considered for the comparison.

Comparison of JP CČN's operations with industry average E 37 - sewage treatment

INDICATOR	2018	2017	2017
	JP CČN	JP CČN	E 37 average
Quick ratio	5.31	8.49	1.60
Overall efficiency	1.13	1.11	1.00
Monthly wage per employee (EUR)	2.204	2.307	1.521
Labour cost per employee (EUR)	36.101	36.732	25.971
Value added per employee (EUR)	76.026	64.709	33.814
Labour cost in added value (%)	47.48	56.76	76.80

Table 1: Comparison of JP CČN's operations with industry average E 37 - sewage treatment

A comparison of the JP CČN business with the industry average E 37 - sewage treatment has certain limitations, as industry data include the operations of all wastewater-treatment and wastewater-service providers, both public and purely commercial, without including service providers that are dominantly engaged in another activity. The methodological appropriateness of the selected indicators for assessing business performance is also limited. The ratio of accelerated coverage of short-term liabilities should be analysed together with other liquidity indicators as a static indicator. The company has no financial debt leased and fully finances capital operations, so the maturity of financing sources

is much better than in the industry. The indicators are higher than the industry and comparable to previous years, while being significantly better than the average of the utility sector, E 37 - sewage treatment. The amount of the average monthly salary depends very much on the educational structure of the employees, which is generally high in companies that perform wastewater treatment only, because this is dictated by the requirements of technological processes.

9. SATISFACTION OF SERVICE USERS AND THE ROLE OF THE SUPERVISORY BOARD

Satisfaction of service users

In December 2018, the enterprise received a Survey of Customer Satisfaction with JP CČN Domžale—Kamnik d.o.o. Services, ordered earlier that year. The survey raised some key questions for service users about their knowledge of the company, their reputation, their satisfaction with the services, the relevance of the price/quality ratio, and any complaints about the work of the company.
In the research source (Cerkvenik, S., 2018) the two most important issues are found: satisfaction with the services provided and the relevance of the price/quality ratio by the respondents are given a very high rating. Satisfaction with the services provided was rated on a scale of 1–5 with a rating of 3.9, and 70 % of the respondents rated the price/quality ratio as adequate.

Role of the Supervisory Board

The Supervisory Board was constituted only in 2012. At present, the SB has three representatives of shareholders who have certain supervisory tasks in accordance with the applicable social contract. The impact and the work of the Supervisory Board on the management of the enterprise are not measurable so far, but they are also reflected in the enterprise's exceptional business results and the impeccably executed €15 million investment in upgrades, which did not result in any affair, complaint or damage to the enterprise's reputation. In 2018, the Supervisory Board also carried out a self-assessment of its work in accordance with the source (Kovač, B., et al. 2011) and informed the Management Board about its findings.

10. CONCLUSION

In the modern world, the success of the enterprise is mostly highlighted by economic indicators. The responsibility for protecting the nature and the environment is often forgotten.

An example of the organization and activity of a public service enterprise CČN shows that much more can be achieved on a treatment plant than required by the public service provider and the owners. Successful performance of specific and market-based services will reduce the cost of wastewater treatment for the user by providing acceptable household costs, contributing a permitted share of profits to municipal budgets, and facilitating the enterprise's advanced and development-oriented business strategy. This makes the enterprise more than just a public service enterprise.

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JCGIRM Journal of Corporate Governance, Insurance, and Risk Management (JCGIRM)
2020, Volume 7, Series 1

pp 53-73

The Impact of COVID-19 on Malta and its Economy and Sustainable Strategies**

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ABSTRACT

The preparedness for outbreaks of pandemics such as the COVID-19 is a major concern for health authorities and leaders as extensive studies in the past have been reported and well documented. However, engaging with the response to an outbreak demands many decisions with enormous implications on a population and its regions. A review of past response mechanisms sheds light on different scenarios to provide an understanding of the challenges that will emerge, depicting trends, changes to GDP and the impact on the economy and employment. With this article we aim to identify and bring to light the challenges faced by Malta during the pandemic we are currently facing - COVID. This will help risk managers and leaders understand the devastating social and economic impact of such disruptions and act proactively to avoid repetition and embarrassments of being unprepared. Moreover we aim to provide an understanding of the expected cascading economic domino effects, which may result from the workforce unavailability, during a pandemic and the mistakes in estimation, if any, that could have been avoided. A desk research study technique was adopted whereby data was collected from existing sources, including government websites, online statistics, published reports, trends and internal data to the local Maltese markets. The COVID-19 phenomena led to new measures being taken worldwide as professionals, leaders, academics and businesses took unpredecented steps to change their business as usual strategies. This in turn brought about various questions and discussions on how islands like Malta controlled their situation.

ARTICLE INFO

Keywords:
Risk Management; Economy; Malta; Sustainable Strategies; Pandemic; COVID-19.

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Article history:

Received 3 07 2020

Revised 10 07 2020

Accepted 11 07 2020

**This article is also available on the SSRN Library posted on the 7th July, 2020.

INTRODUCTION

Sands (2019) compares the preparedness for outbreaks of pandemics such as the COVID-19, to the fable of a boiling frog, wherein the frog placed in cold water will remain in the cold water even when the temperature starts to rise gradually to boiling, dooming itself to a catastrophic end. He explains that in paying attention to "stark contrasts and sudden changes", leaders overlook "slow moving changes in the environments that may herald disastrous consequences". He continues to note that in many of the infectious disease outbreaks; it is only once crisis unfolds that leaders, politicians, and influencers race to secure operations and support customers and populations. Decisions were being taken on the fly, without any information and proactive structured procedures of interventions used to identify, monitor, mitigate and respond to these new risks. Kruf (2020), shares some personal thoughts on the outbreak of the COVID-19, and suggests that the action taken by leaders started too late, even though we were aware of an outbreak. He compares this continuity/mitigation action to have started "in the middle of a movie" and explains that leaders seem to have forgotten about it coming. In accordance with the

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articles by Chua Chow et al. (2002) and Higgins et al. (2018) a virus that evolves into a new unexpected form and that the extent and full implications remain unclear (i.e. the time of the occurrence, location and magnitude are difficult to determine) can be classified as "Unknown Risks /Known Unknowns". Therefore, these scenarios can be simulated on computers to produce unexpected emergent properties and data that make explicit what is now implicit in the rules and the background constrains imposed by the scenario. Furthermore Kruf (2020) highlights that although some believe that we are living in a time of uncertainty, volatility, complexity, and unpredictability, it is not much different from a decade ago. He suggests that the dynamics follow the same patterns, maybe with a different wrapper.

There have been various extensive studies on epidemics, and all these have been reported and well documented. Academics and practitioners have provided scenarios and scenario testing, which are an essential part of every ecosystem and resilience thinking. This suggests that there should be enough scientific knowledge to justify the conclusions on the complexity and predictability of this risk. However, if we fail to act in time or forget to act, this leads to a crisis (Kruf, 2020). Therefore, the Risk Management processes for viruses, which we classify as "Unknown Risks/Known Unknowns", should be catered for in the business continuity plans of all organizations. Pre-set key indicators should trigger a proactive plan to mitigate all uncertainties that should matter to the objective of the said organization. A pre-set facilities team should trigger the plan for mitigation and/or management. However, not all organizations and world leaders are obliged by regulatory requirements to maintain and test this plan or believe that such proactivity is required. Most are reactive and have political agendas or are disbelievers. This and the day to day agendas may alienate them and populations away from reality. Even where continuity plans are in place, especially in financial services where regulations require that business continuity plans are exhaustive and tested regularly, these sometimes are not complete and miss out the measurement parts, which are not dependent on them but might be influenced by the interrelations with, for example other organizations' decisions or political agendas (Healy et al., 2009).

Literature Review

According to Santos et al. (2009) disease control experts predicted that "an infection that spreads widely and affects a significant proportion of the population is inevitable". They note that a pandemic endangers the general population, even those who have not been infected. It creates large-scale disruptions in the normal way of life and working sector, leading to further stress with the consequence of fear, illnesses, and mortalities cause by the cascading effects**.** There are several pandemic viruses, such as the Anthax, the Ebola hemorrhagic fever, but the influenza viruses are the worst fears, since they can mutate and overcome vaccines and migrate quickly, spreading through populations and regions (Santos et al., 2009). Santos et al. (2009) explained that experts predicted that the next pandemic would be widespread and infect between 15 to 35% of the global population lasting at least four weeks to a maximum of 18 months. They said that this would have multiple waves lasting at least eight weeks with repetitions in the same and different geographic regions, infecting several persons. Health experts project average illness length at two days, with a minimum of one day and maximum of 10 days. Consequently, they anticipated that between 10 to 25% of the workforce would be absent due to being infected, caring for infected family members or on precautionary quarantine. Moreover, their estimates showed that at least 35% of "utility (electricity, gas, and water), waste management, mortuary, transport, and healthcare workers would either be infected or develop some other form of medical condition.

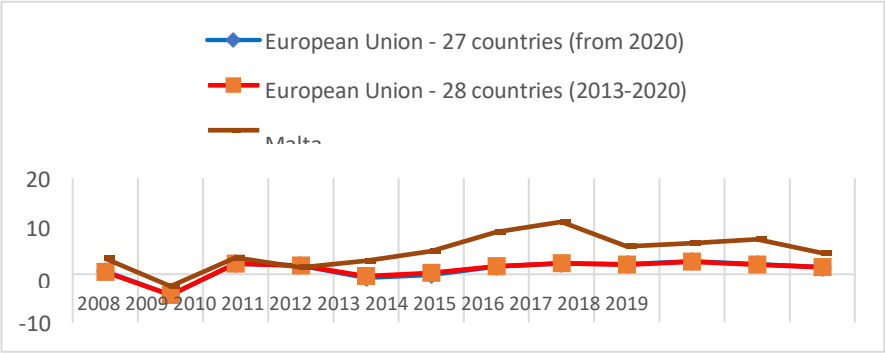
The Covid-19 is affecting 209 countries and territories around the world and two international conveyances. As at the time of writing (8th May, 2020), it has already infected over 3.9 million persons worldwide, with more than 271 thousand deaths and countries such as the United States (US), Spain, Italy, Germany, France, China, Iran and the UK being the most hit (Wal- dometer, 2020). Understanding, the challenges faced during this pandemic and highlighting the cascading economic domino effects, which results from workforce unavailability, during a pandemic and the mistakes in estimation, if any, will help risk managers and policy makers in their decisions, who in turn ensure a stronger economy and better wellbeing (Grima, 2018). The choice of Malta for our study follows the ideology that like studies carried out in the past by King (1993), Briguglio (1995), Bezzina et al.

(2012), Bezzina et al. (2014) and Magri et al. (2019) to use islands as small- scale laboratories for more complex politics, regulations, and policies of larger countries. Malta is a small southern European island state consisting of an archipelago in the Mediterranean Sea. It has a population of circa 475,000 inhabitants with native Maltese comprising most of its inhabitants. Malta covers just over 316 km2, is a full member of the European Union (EU) and forms part of the Eurozone. Malta is the world's tenth smallest country in area and fifth most densely populated sovereign country. The financial and tourism services sector are a major pillar of Malta's economy and this may be attributed to an advantageous warm climate, numerous recreational areas, architectural and historical monuments, including three UNESCO World Heritage sites, the tax regime, a low cost environment, a well-trained and motivated labour force and a EU-compliant, yet flexible, domicile (Chapman et al., 2004; Malta National Statistics Office, 2019; Finance Malta, 2013; Bezzina et al., 2012; Bezzina et al., 2014).

Gross Domestic Product and Employment

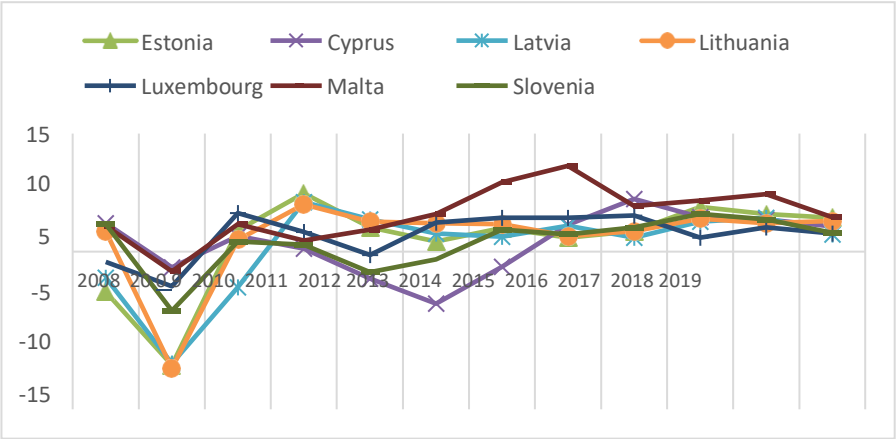
As noted in the article by Fabri, et al. (2020), a crisis as defined by the Greek work 'krisis' marks a transitional period for a 'decisive turning point'. It is a period where countries and states need to work together to ensure sustainability and embrace opportunities while mitigating catastrophes proactively. Malta, like all other countries has been and will continue to be adversely impacted by this pandemic (COVID-19). Especially for some sectors of the economy the impact is devastating. Although in some sectors of the economy there is no alternative route or limited alternatives some have managed to continue operations using alternative methods and at the same time using protective measure to avoid the spreading of the pandemic. Also, the recent favorable performance of the Maltese economy has allowed room for government intervention. A snapshot of Malta's economic performance of the last 12 years (between 2008 and 2019) in terms of percentage year on year change in Gross Domestic Product (GDP) as compared to the European Un- ion -27 countries (from 2020), the European Union – 28 countries (2013- 2020) and similar EU small states (i.e. with a population of less than 3 mil- lion), specifically Estonia, Latvia, Lithuania, Slovenia, Cyprus and Luxembourg, can be seen in Figure 1 and Figure 2 below (Eurostat, 2020).

Figure 1. *Real GDP: Year on year percentage change*



Source: *Adapted from Eurostat, 2020.*

Figure 2. *Real GDP: Year on year percentage change*



Source: *Adapted from Eurostat (2020).*

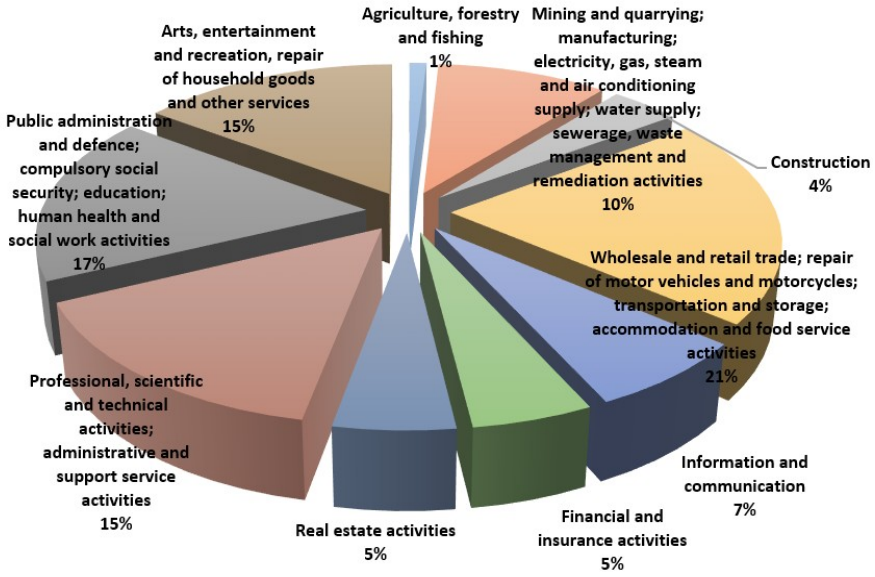
We can note that propelled by a strong service sector, Malta's real growth between 2008 and 2019, even during the financial crisis was above that of the EU 27 and 28 countries, growing at a sustained pace with an increased rate after 2011. Similarly, when compared to other states considered as small, Malta's real GDP growth exceeds all others. This and the fast employment growth impacted the public finances, reversing debt into fiscal surplus with declining debt ratios (Fabri et al., 2020).

According to official data from the World Bank and projections from Trading Economics, the (GDP) in Malta, in 2019, was worth US$15.10 billion, representing a GDP value of 0.01 percent of the world economy. The expectations are that this will reach US$15.90 billion by the end of 2020. In the long-term, the Malta GDP is projected to trend around US$17.50 billion in 2021 and US$20.00 billion in 2022 (Trading Economics, 2020; Baldacchino et al., 2020a). The headlines of an article in the Times of Malta of the 14th April, 2020, quotes the International Monetary Fund (IMF) as stating that Malta's economy is likely to shrink by 2.8% due to the COVID-19 pan- demic, with an expected rebound in 2021 of a strong 7%. Moreover, in a subheading it also quotes the World Economic Outlook to have projected a 7.5% decline across the Eurozone (Times of Malta, 2020d; World Economic Outlook, 2020). The article in the times continues to quote the IMF as highlighting the expectation of a rise in 5% unemployment in 2020 from last figures in 2019 which hovered around the 3.4 percentage mark, which will decrease slightly to 4.4% in 2021 (Times of Malta, 2020d; World Economic Outlook, 2020). Bassetti (2020), in an article in Focus Economics, corroborates this and notes that Malta together with Netherlands and Germany are the Eurozone countries with the lowest March 2020 unemployment rates of 3.5%, 2.9% and 3.5% respectively. These projections indicate that Malta is expected to suffer a smaller economic impact than those in other countries and regions.

Composition of the Maltese Economy (2019) in Gross Value Added (GVA)

The total % GVA as at the end of December last year was of €11,715,404,000 and split up as shown in rounded up % of GVA in Figure 3 below. The highest percentage contributors to the GVA of Malta are the wholesale and retail trade, repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities (20.87%), followed closely by the Public administration and defense, compulsory social security, education, human health and social work activities (16.8%), the professional, scientific and technical activities, administrative and support service activities (15.48%) and arts, entertainment and recreation, repair of household goods and other services (15.26%). All other sectors contribution was less than 7% (NSO, 2020a).

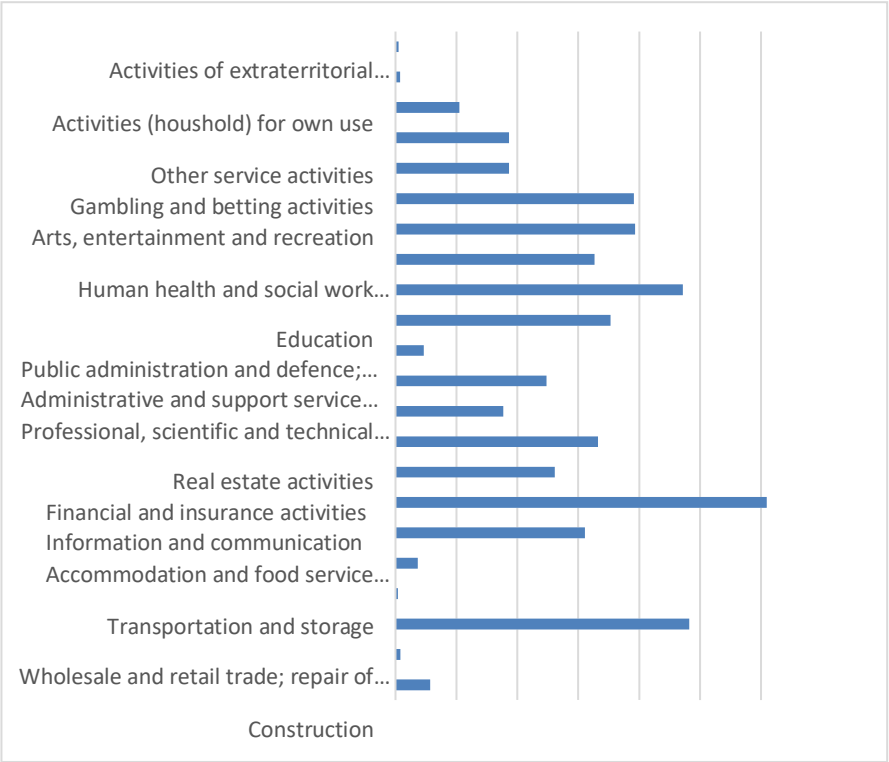
Figure 3. *Percentage Gross Value Adding per Sector of the Economy as at December 2019.*



Source: *Adapted from National Statistics Office (NSO), 2020a.*

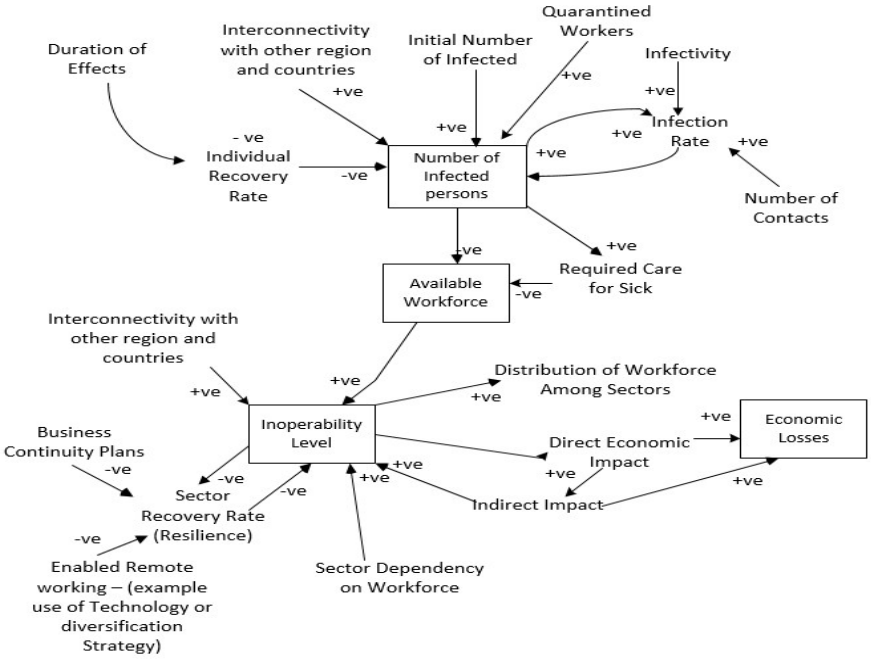
The total gainfully employed as at October 2019 stood at 223,078 and is split up as shown in Figure 4, with the largest employers being wholesale and retail trade, repair of motor vehicles and motorcycles (12.19%), mainly the retail and wholesale trade, excluding motor vehicles and motorcycles (90%) (NSO, 2020b). However, as noted above one needs also to consider the cascading ef- fects of certain industries due to an infectious pandemic onto other sectors as noted by Santos et al. (2009), who noted that a pandemic endangers the general population, even those who have not been infected. It creates large- scale disruptions in the normal way of life and working sector, leading to further stress with the consequence of fear, illnesses, and mortalities cause by the cascading effects (Figure 5).

Figure 4. *Full-time employment classified as at October 2019 and by economic activity*



Source: *Adapted from National Statistics Office (NSO), 2020b.*

Figure 5. *The Overall Problem*



Source: *Adopted from Santos et al., (2009)*

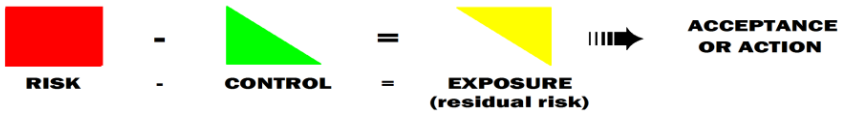
Figure 5 shows a simplified outline of the overarching problem. That is scenarios of the direct and indirect consequences on the workforce and economic productivity of a virus such as COVID-19 spreading throughout the general populations. Most, if not all economic sectors are dependent in some way (directly or indirectly) on the workforce. Therefore, interdependency is a key component in determining the cascading effects of disruptions on economic productivity. Models can be used to

model interdependencies across various sectors of a specific regional economy and measure the cascading impact of interdependency amongst sectors of an economy pursuant to a disruption, therefore determining the exposure and enabling an informed decision.
Once a key indicator is flagged, the associated risks are analyzed, and mitigation/ management measures are put in place. Firstly, one needs to de- termine the possible impact of the disruption and the likelihood of it, the preparedness and controls in place to manage/mitigate and ensure continuity with an acceptable remaining residual risk (Kaplan et al., 1981; Baldacchino et al., 2020b).
The efficacy and accuracy of the Risk Management continuity plan will depend highly on the integrity of the data gathering process which depends on the vision and expertise of experts, the integrity of the simulations and tests carried out and historical events (Figure 6).

About the Virus – The Problem Context

On the 31st December 2019, in Wuhan, Hubei, Province, China there were reports of several pneumonia cases of unknown aetiologia. On the 9th January 2020, the Chinese Centre for disease control reported a new mutated form of coronavirus in the "Severe Acute Respiratory Syndrome-Corona- virus (SARS-CoV) phylogenetic clade, as the causative agent of this out- break. This associated infective disease is referred to as a new coronavirus disease 2019 (COVID-19)" (European Centre for Disease Prevention and Control (ECDC), 2020b).

Figure 6. *Risk Identification and Management Process*



Source: *Adopted from Kaplan et al. (1981)*

Analyses of cases show that the COVID-19 infection can cause mild symptoms of the disease (i.e. non-pneumonia or mild pneumonia) in about 80% of cases. Most cases will recover, 14% of the cases are however more severe, with 6% being critical ill and will require specialist medical care, which may include mechanical ventilation (Ministero della Salute, 2020). Most of the severe illnesses and deaths occurred among those with other chronic underlying medical conditions, the elderly (European Centre for Disease Prevention and Control (ECDC), 2020a) and those being in long- term care facilities (LTCF) (Tran et al., 2012). Since the COVID-19 is a newly identified virus, no therapeutics or vaccines are yet available, and it is assumed that no form of immunity pre-exists in the communities (European Centre for Disease Prevention and Control (ECDC, 2020a). It is believed that COVID-19 is transmitted from person to person through large respiratory droplets, through inhalation or deposition on mucosal surfaces and through contact with "contaminated fomites and inhalation of aerosols produced during aerosol-generating procedures" (World Health Organization (WHO), 2020).

How it spread in Malta

Following the worldwide impact of Covid-19 in Malta, on the 24th of January 2020, the Superintendent for Public Health predicted that there was low exposure to the virus due to no direct flights between Malta and China (Calleja and Carabott, 2020). A month later, health authorities announced that all passengers arriving in Malta had to be screened by thermal cameras (Caruana, 2020a). Two thermal scanning devices were installed at Malta International Airport and passengers disembarking from vessels at the Grand Harbour and catamaran terminal were also being scanned. At Mater Dei hospital patients with respiratory problems were being checked for Covid-19 at the same time (ibid). The Ministry for Health, on the 25th of February in- formed any travelers coming from Italy to self-quarantine for 14 days. Furthermore, information was distributed to all citizens that they were not to travel to regions of Italy affected by the outbreak (Ananasso et al., 2020). In the meantime,

people were being advised to take the necessary precautions for the prevention of respiratory infections (Azzopardi, 2020). The pandemic at the time in Italy, proceeded south with the first case in Palermo. As a result of the outbreak, some firms in Malta requested their staff who had recently returned from Italy to telework and cancelled any non- essential travelling to Italy (Watson, 2020).

Malta reported its first three cases on March 7th, consisting of an Italian family, a 12-year old girl and her parents, who arrived in Malta on the 3rd of March from Rome. They had been self-quarantined since their arrival (Times of Malta, 2020a). As of the 8th March, five hundred and forty tests had been carried and included all those who were in contact with the family (Conneeley, 2020). On the 9th of March, one positive result brought the overall cases to four (Times of Malta, 2020b). Fourth and fifth cases were reported as being Norwegians. On March 11th, the sixth and seventh case was confirmed (Caruana, 2020b) and on March 12th, the eighth and ninth case emerged (Caruana and Carabott, 2020) By March 13th, eight hundred and eighty-nine tests had been carried out and a further three cases were announced (Borg and Cacciattolo, 2020). All cases up until this point were imported from abroad.

By the 14th of March there were eighteen cases in total (Times of Malta, 2020c) and by March 15th a total of twenty-one cases were identified (Arena and Caruana, 2020a; 2020b; 2020c). However, also by this date, the first and second cases had recovered (Cilia, 2020; Bonnici, 2020a). On the 16th of March, the superintendent of public health announced that nine new cases had been recorded bringing the total up to thirty (Azzopardi, 2020b). On March 17th, Maltese authorities confirmed a further eight cases bringing the total up to thirty-eight (Borg, 2020). On March 18th ten new cases were re- ported, including, for the first time, two patients aged over 70. On March 19th, five new cases were reported (Arena and Caruana, 2020b). By the 20th of March, 11 new cases of patients had been reported and included the first Maltese case who developed complications of the infection (TVM Televi- sion Malta, 2020; Arena and Caruana, 2020c). On the 21st of March, nine new cases were reported, and on the 22nd seventeen new cases were re- ported. Ten of the seventeen cases were believed to be related to travel, while the other seven were believed to be locally transmitted. On March 23rd, an- other seventeen new cases were reported (Bonnici, 2020b), and on the 24th, 25th and 26th a total of twenty-seven new cases were reported.

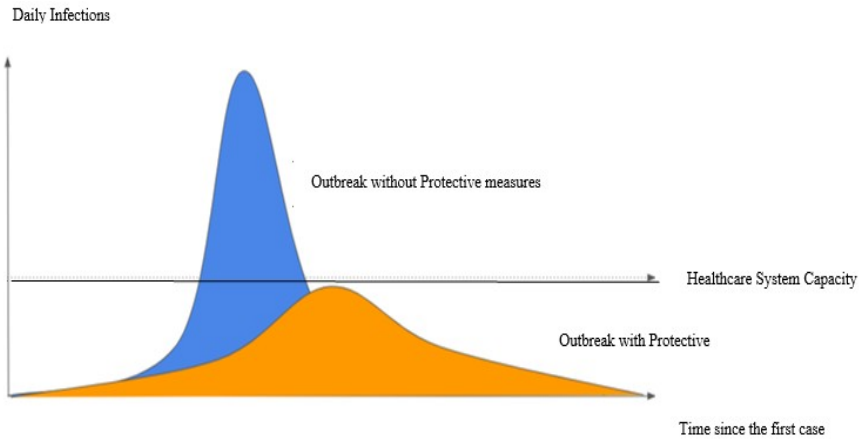
The peak of new cases has been reached as at April 11th with 22 new cases and is now hovering between no cases and less than 10 cases per day. The total Coronavirus Cases of infected persons as at the 6th May 2020 stood at 484 with 407 who have since recovered and 5 deaths. This out of 38,337 swab tests carried out on a population approximately 493,559 persons (12.87%) (Worldometer, 2020). The aim of the health department is to flatten the curve of infected cases to a point where the health department is able to handle the situation (refer to Figure 7) and at the same time put in measures to increase the capacity of health services and protect mainly the vulnerable and older persons, especially those in old persons homes.

In fact, the health authorities have taken measures to segregate and quarantine infected or possible carriers of the viruses at their homes or at different hospitals. Health care personnel have voluntary opted to segregate themselves from their families, by staying in different lodging or remaining quarantined at the respective hospitals or old peoples' homes. Other various measures such as protective equipment etc. have also been provided to health care workers and cleaners who are cleaning and disinfected public places.

The world is generally not prepared for a severe pandemic with naturally devastating effects on health (Studzinski, 2015). Once a key indicator of a virus outbreak is flagged this should trigger a systematic plan to prevent the outbreak from mushrooming nationally and across the globe. Although progress has been made since the response to Ebola in West Africa between 2014 and 2016, experts suggest that the world is still not prepared enough to respond and detect outbreak (World Economic Forum, 2019). Over the past 30 years the frequency and diversity of disease outbreaks has grown steadily (ibid). Increase in deforestation have resulted in new outbreaks as the loss of tree coverage, which has been rising over the past 17 years, and has been linked to 31% of outbreaks of new and emerging diseases,

including the Nipah virus, Ebola and Zika (Kessler, 2017). Pandemic experts estimate that pandemics will infect 15-35% of the world population and last 4 to 18 months with multiple waves (Department of Homeland Security DHS, 2006). Each wave lasts about eight weeks and then repeats itself in the same geographical location.

Figure 7. *Figure shows the Flattening the Curve of an outbreak without protective measures versus an outbreak with protective measures.*



Source: *Adopted from information is beautiful (2020) – (Image credit -Johannes Kal- liauer/CC BY-SA 4.0, 2020)*

As at the 9th of April a registered total of twelve thousand, six hundred and sixty-two tests had been carried out. Total cases now amount to one hundred and forty-nine (Worldometer, 2020).

Lessons learnt from past pandemics and disruptions

The 1889, pandemic which was the earliest pandemic that had been quantitatively studied, researchers found that clinical attack rates were as high as 60% in age groups ranging from 1 to 60 years, while most influenza deaths were found in older adults. The lack of detailed age- and cause-specific mortality time series data at this time hindered further understanding of the age patterns of deaths associated with this pandemic (Simonsen et al., 2011). In 1918 the world experienced the most severe influenza pandemic in history, with an estimated global death toll of 1–2% of the global population during 1918–1920 (Murray et al., 2006). Young adults aged 20 to 40 were at extreme risk, while the sparing of seniors did not occur everywhere. The 1918 pandemic signature age pattern slowly reverted to seasonal pattern. During this time, mathematical models played an increasing role in public health decision-making for pandemic influenza and other emerging infectious diseases. The models provided a quantitative framework to evaluate the transmission potential of novel pathogens, consider a variety of epidemic scenarios, and select appropriate public health interventions (Simonsen et al., 2011).

In the moderately severe 1957 A/H2N2 and the milder 1968 A/H3N2 pandemics there was a moderate age shift in mortality towards younger ages, so that younger adults were at far greater risk of death than in a typical sea- son. On the other hand, the mortality risk to the elderly was not that different from a severe seasonal epidemic (Simonsen et al., 1998; Miller et al., 2005). The 2009 pandemic impact was found to be in the range of the 1968 pandemic and more severe than seasonal influenza, using Years of Life Lost (YLL) as a metric, and age standardization (Viboud et al., 2010). The WHO was criticized for having overreacted by recommending vaccination with a monovalent vaccine and other vigorous public health measures. However, considering the information available at hand, a rigorous response to the 2009 pandemic was justified (Viboud et al., 2010; Butler, 2010). Uncertainty surrounds all emerging infectious disease events, and in such conditions, public health officials must make difficult policy decisions (Simonsen et al., 2011). The lessons learned from this pandemic was that it was vital to maintain surveillance efforts and international data sharing in the post-pandemic period so that prevention and control programs could be tailored to the changing epidemiology of post-pandemic

influenza. A 'Historical Influenza Pandemics: Lessons Learned' Meeting and Workshop was held in May 3–7, 2010 in Copenhagen, Denmark (Simonsen et al., 2011) Plenary sessions highlighted new strategies for spatial and temporal analysis, virus surveillance, and control efforts for the 1889, 1918, 1957, 1968, and 2009) Table 1, influenza pandemics. The implications and results collated from such events means that the global scientific, medical, legal, and political communities are equipped to face future pandemics.

Table 1. *Characteristics of the past four influenza pandemics*

Pandemic year of emergence and common name	**Area of origin**	**Estimated case fatality**	**Age groups most affected *(36)***
1918 "Spanish flu"	Unclear	2–3% (37)	Young adults
1957–1958 "Asian flu"	Southern China	<0.2%	All age groups
1968–1969 "Hong Kong flu"	Southern China	<0.2%	All age groups
2009 -2010 "influenza A(H1N1) 2009"	North America	0.02% (39)	Children and young adults

Source: *Adapted from Pandemic Influenza Risk Management, (2017) A WHO guide to inform and harmonize national and international pandemic preparedness and response. Geneva: World Health Organization.*

A lack of effective planning means that the effects of a pandemic will lead to social and economic disruption as is the case with the COVID-19. As is currently happening in Italy (as an example), there is a threat to the continuity of essential services, lower or reduced productivity, distribution difficulties and shortages of supplies and human resources. It is imperative that private and public organizations plan for potential disruption as it is expected to occur (as seen above in historical pandemics) so that business continuity is ensured for all essential services. Also, alternative plans for energy sup- plies, in case of major disruptions, should be evaluated (Pandemic Influenza Risk Management, 2017, Table 1).

Strategies to stop the spread and safeguard businesses

The risk management challenge to respond to pandemics and control a cascading effect on the workforce is central to maintaining continuity in business operations. Pandemic planning and preparedness in general practice is ultimately a crucial risk management exercise. In the current circum- stances, general good planning at the workplace means employees feel safe to attend their place of work (Nori et al., 2009). Safety is furthermore supported by the recognition of models or steps used to support business survival. A key element in controlling a pandemic is early action (McKinnon, 2006) and for continuity in any business, employees need to know that action is being taken in terms of infection control and business continuity to support productivity. The literature supports four strategies to help stop the spread and support business; these include a) infection control, b) preparedness, c) communication and d) decision-making.

Good infection control: It is a well-known cornerstone of disease management (Nori et al., 2009) which refers to all policies, procedures and activities that aim to prevent or minimize the risk of transmission of infectious diseases. Infection control is critical to any successful strategy. 'Employers must provide a safe working environment for their employees, and must pro- vide such information, instruction, training and supervision as are reasona- bly necessary to ensure that each employee is safe from injury and risks to health'(South Australian Occupational Health and Safety legislation, 1986). Maintaining good infection control helps businesses by ensuring that their facilities are safe to be used during a pandemic. Hand hygiene, social distancing and a lockdown on canteen facilities are all processes undertaken to enhance infection control at the workplace.

Preparedness: A recent first-of-its-kind comprehensive assessment of health security and related capabilities across 195 countries found fundamental weaknesses around the world: no country is fully prepared to handle an epidemic or pandemic (Nuclear Threat Initiative (NTI), 2019). In the meantime, the world's collective vulnerability to the societal and economic impacts of infectious disease crises appears to be increasing (World Economic Forum, 2019). The Preparedness Index used in the U.S. combines measures from multiple sources and perspectives to offer a broad view of the health protections in place for the nation as a whole and for each U.S. state. The Index identifies strengths as well as gaps in the protections needed to keep people safe and healthy in the face of large-scale public health threats, and it tracks down how these protections vary across the United States and change over time (National Health Security Preparedness Index (NHSPI), 2020). A recommendation was put forward by the International Working Group on Financing Preparedness for the setting up of preparedness indicators by the World Bank for a comprehensive pandemic risk management approach in country specific systemic country diagnostics (Studzinski, 2017). A preparedness Index would help in promoting healthy competition between regions and states and together with business ready programs, business leaders will make preparedness plans to be ready for such hazards (Department of Homeland Security, 2019).

Preparedness for business is available through models such as the DALI model (Dalli Gonzi, 2019; Dalli Gonzi et al., 2019) and FORTE™ model (Kruf et al., 2019). The DALI Model assists organizations in risk identification and business continuity planning. Through this model, organizations are subjected to eight thematic elements, which as noted in the case for Financial Services firms can be packaged and reduced to four elements, to understand whether management practices can continue to exist and support operational environments, even when unexpected circumstances affect their day-to-day operations and processes. Similarly, the FORTE model helps in developing a governance structure with the objective of determining the preparedness of both the public and private sectors to ensure resilience to risk events and continuity. The latter is a pioneer model emphasizing that for resilience and continuity, there needs to be an integrated effort between the Public and Private sectors and the community at large (i.e. the leaders and regulators of both the public and private sectors and the community at large.

This pandemic (COVID-19), has shown us more than ever, the importance of integration of these three sectors of and economy. The examples of China and now other countries have shown us that with this kind of inte- gration, the number of new cases and deaths are reduced drastically. In fact, the take home lesson from this pandemic will be the need for integration of all members of this world.

Communication: During this current uncertain scenario and sense of confusion and urgency, the special challenges of communication are empha- sized (WHO, 2005; Centers for Disease Control and Prevention, (CDC) 2002). During a pandemic, a survey of the needs of developing countries conducted by the WHO and other UN agencies showed that many developing countries found communicating at the community level a problem and were requesting support for the planning of behavior change communication at the community level. Clear communication on what the public needed to do to reduce transmission and advice on treatment was the initial requirement. However, as the pandemic progressed, this changed to more complex questions such as vaccination, vaccine safety and the need for continued vigiliance (World Health Organisation/ Unione Nazionale Sindacale Imprendi- tori e Coltivatori di Cosenza United Nations Office for the Coordination of Humanitarian Affairs (WHO/UNSIC/OCHA), 2009).

Communication during a health emergency or crisis often gets bogged down in questions of blame. Who is to take the greater burden of decisions and communicate it, as one part of society affects the other in a domino effect? 'Who is at fault?' 'Then, what action, which means, what damages, what compensation, what restitution?' Risk thus 'becomes a stick for beating authority' (Douglas, 1992). In relating to business strategies for maintaining continuity, public health questions do arise. These bring on new challenges of conflicting information, as different narratives are created by different power groups; political, environmental, social, youths, education, financial, risk and so on. Businesses benefit when information is shared in real time with strong supporting authorities to compensate for rapid

changes (such as tax cuts, financial assistance, or changes to regulations). Central to this in- formation exchange is how the entities communicating this information are regarded as trustworthy and those, which were not. Supporting businesses through social media and the internet means that such platforms provide 'al- ternate lines of knowledge circulation,' where websites and blogs also challenged assessments by experts and authorities, presenting a different approach to traditional top-down communication from expert to audience (Briggs, 2009).

The information that business receive during times of crisis will be overwhelming. Therefore, the management of information is critical when fast decisions need to be undertaken. In addition, information management must support the economic case that persuasively reflects on the macro-critical risks and benefits of risk management in a manner that is relevant to the country and private business priorities (Studzinski, 2017).

Decision-making: Public leaders need to recognize they are facing a cri- sis and address it in time (Dalli Gonzi, 2019). If not addressed in time, the scale of the matter or event begins to expand to uncontrollable proportions with resulting impacts on a multitude of sectors. The WHO-China Joint Mission on the Coronavirus Disease shows very clearly that only immediate and decisive public health responses worked to prevent or delay hundreds of thousands of cases in China. For example, decisions over vaccine procurement, travel restrictions, and other public health measures, all have economic and political consequences, and therefore those who communicate about these issues find themselves confronting questions that are not essentially about health but about other aspects of society (Abraham, 2011).

Aside from the impacts on economy and politics, are impacts on busi- nesses. For a business leader to take decisions in the appropriate time one may require situational analysis and risk breakdown based on public man- agement updates, regulations or restrictions that are affecting the country as the crisis grows. Public Risk Management Organization (PRIMO), a think tank organized to host trans-disciplinary debates about how to concretize lo- cal management and governance based on the public risks derived from in depth interviews and analyses by world leaders, experts and scientists (Kruf, 2020) is an example of bridging the gap between public information to ad- dress business queries and needs. This is a platform that manages public sec- tor information management domain to bring it to the forefront of business leaders for better proactive decision taking as required. This organization emphasizes the need for integration in decision taking between the world leaders and society at large. Business rarely emphasize the risk of infectious disease in their considerations, but if large corporations fully appreciate the commercial threat, they will no longer remain on the sidelines of the efforts to strengthen global health security (World Economic Forum, 2019).

Mandatory Mitigation Measures

Schools and educational institutions were the first to close as of 13th March 2020) and will remain closed until the end of June, which is the end of the current scholastic year. All students will continue with their learning and studies through online means. With effect from Tuesday 17th March at 11:59pm, all bars (excluding take-away), restaurants (excluding deliveries), gymnasiums, clubs, cinemas, and tombola halls had to close. Closure of Malta International Airport and all passenger flights inbound to Malta were suspended after 23.59hrs of the 20th March 2020. As from the 23 March 2020 at 8am, all shops whereby their principal business relates to the selling of the following services had to close (whether operating in shopping malls and/or elsewhere):

- Clothing
- Sportswear
- Jewellery
- Handbags and leather goods
- Costume jewellery and accessories
- Footwear

- Non-prescription eyewear
- Perfumeries
- Beauty products
- Haberdasheries
- Soft furnishings
- Household appliances
- Souvenir shops
- Discount stores
- Luggage shops
- Toy shops
- Furniture
- Florists and vaping shops shall be observed

However, these shops could still sell and provide delivery services of their products in the community. Moreover, with effect from this said date and time outlets providing non-essential services, namely hairdressers, barbers, beauticians, spas, nail artists, nail technicians and tattooists, were also to be closed. Also, gatherings of more than four persons is disallowed and subjected to fines if the condition is breached. Fines of €3000 were imposed each time these new measures were breached (covid19malta, 2020).

Fiscal measures

As highlighted in the press release PR200520 dated 18th March, 2020, cited on doi.gov.mt, the Prime Minister of Malta, the Minister for Finance and Financial Services and the Minister for the Economy, Investment and Small Business announced the following measures to soften the impact on some sectors of the economy due to the COVID-19 pandemic and support those members of the population that are unable to continue working due to this pandemic. The collective value of this economic package is of circa €1.81 billion (an amount equal to 12.9% of Malta's GDP in 2019). A summary of the most salient points as highlighted on this press release and in the government website servizz.gov.mt on April 7th, 2020, are as follows:

Person with Disability Benefit – employed in the in the private sector and following the measures taken by government to mitigate the spreading of the COVID-19 virus from the 8th of March 2020 cannot go to work on medical advice and are not able to work from home, may apply for benefit (a), (b) and (c).

Additional Unemployment Benefit – to workers who after the 8th of March 2020, due to this pandemic have lost their job lose their job in the private sector can apply for (a) to (f) below.

Medical Benefit - to workers who after the 27th of March, 2020, due to this pandemic are not going to work due to an order of the Superintendent of Public Health of Malta, are not allowed to leave their home, are not able to work from home and are not being paid by their employer during their absence from work, may benefit from (a) to (f) below the during their absence from work.

Family Friendly Measures, (*Parent Benefit)* – to those employed in the private sector with children under 16 years of age, following the measures taken by government to mitigate the spreading of the COVID-19 virus from the 8th of March 2020 cannot go to work on medical advice, are not able to work from home, and who do not work or provide an essential service in a Government department or entity may apply for (a), (b), (c), (d) and (g):

a) a direct payment of €166.15 per week if you work full-time or €103.85 per week if you work part-time.
b) the payment of their Social Security Contribution and future con-

tributory pension rights safeguarded.

c) the entitlement to any Disability Assistances without deductions.
d) an adjustment to the children's allowance (if one is entitled to it) will have its rate adjusted in line with their new income earned up to a ceiling rate of €24.08 per week per child.
e) any in work benefit will continue to be received without deductions.
f) any supplementary allowances will have the rate adjusted in line with the new income earned up to a ceiling rate of €4.57 per week for single persons and €12.54 per week for couples.
g) any Tapering of Benefits received without deductions.

About 12,000 families with children who have both parents/guardians working in the private sector will benefit from this measure.

Tax Deferrals - of dues in respect of income tax, VAT and social security and maternity fund contributions by employers and the self-employed persons for the months of March and April will be postponed. This measure is expected to cost the Government between €400 million and €700 million.

Bank Guarantees – utilized to support the provision of soft loans or temporary moratoriums on personal and business loans are extended for up to €900 million. These guarantees are expected to result in an additional access to credit of circa €4.5 billion, if fully utilized.

Direct Capital Injection - of around €210 (1.5% GDP) million in the Maltese economy with around €35 million allocated to the Health Authorities to fight the COVID 19.

Financial Aid, Quarantine Leave - A sum of €350 will be granted to employers for each employee under quarantine leave. Further Efforts to Assist Businesses by government:

- to cover 2 days of an employee wages per week (based on a maxi- mum wage of €800 per month) for enterprises suffering from a complete suspension of operations (including providers of accommodation, food and beverage services, language schools and entertainment venues). This is expected to benefit between 20,000 – 44,000 employees
- to cover 2 days of income per week (based on maximum income of €800 per month) for the self-employed suffering a complete suspension of operations (including providers of accommodation, food and beverage services, language schools and entertainment venues). This is expected to benefit circa 5,700 self-employed persons. Government coverage will increase to 3 days in the case of self-employed individuals who employ others
- to cover 1 day of employee wages per week (based on a maximum wage of €800 per month) for enterprises whose operations decreased at least by 25%. This is expected to benefit circa 47,500 employees
- to cover 1 day of income per week (based on maximum income of €800 per month) for the self-employed whose operations decreased by at least 25%. This is expected to benefit circa 9,600 self-employed persons. Government coverage will increase to 2 days in the case of self-employed individuals who employ others. (doi.mt, 2020).

Housing Subsidies – to those families that benefitted from government housing subsidies and have lost their jobs will be eligible for an increased subsidy.

Third Country Nationals – are not allowed to replace employees dis- missed. Applications for work permits for new third-country nationals will no longer be accepted (an exception will be made for highly skilled workers). However, the Government will seek to assist all third-country nationals who are presently in Malta and have their employment terminated to find an alternative employment.

Facilitating Teleworking activities – by helping those employers who have invested in teleworking systems. Malta Enterprise is offering to pick up 45% of the cost of that installation, capped at €500 per employee and €4,000 per undertaking.

VAT and tax refunds - process to be expedited.

Conclusion

World leaders and politicians by nature react only when enticed or triggered by what are considered red flags/key indicators for the Known Un- known only when the issue exists (i.e. when already in a crisis). However, Risk Management is about managing by precaution and proactivity so as not to be in a crisis. Therefore, someone must have got this wrong. Either the measurement or the monitoring was not correctly gauged, or politics and economics prevailed over rationality. Maybe complacency and alienation prevailed due to overreliance on medical advancement, technology, frame- works, and models, which use complicated measurement formulas to deter- mine when and how to trigger reaction.

The COVID-19 opens the world of professionals, leaders and academics to various questions and discussions on for example, how could a country like Malta, which is an Island have stopped rather than controlled the situation? Could leaders have taken the decision to close borders or impose quarantines on imported possible COVID-19 infected persons earlier? How could Italy and Spain allow mass gatherings to watch a football match in the Bergamo area?

COVID-19 is classified as Known unknown and should trigger immediate Red flags and drastic approaches. Approaches, which our ancestors have taken in the past for other virus outbreaks and without the technological knowledge and communication systems, we have today.

Although, Malta so far seem to be controlling the outbreak from hitting too hard at one go, the plans by the World Health Organization (WHO), whom the Maltese Health Authorities rightly follow, seem reactive (Disaster Recovery) based at a first instance on a partially reactive mentality of half measures (if we hit a certain point we react) and one can only hope that the numbers do not spike.

We say partially reactive, since our belief is that the Red flag raised by the WHO, might have been raised late maybe due to incorrect information provided at the start of the outbreak. Should a recalibration of the Red Flag be done?

In fact, in an article by Qui (2020), notes that Wuhan-based virologist Shi Zhengli identified several deadly SARS-like viruses in bat caves, and warned that there are more. She further notes that many scientists suggest that we should be more proactive and not respond only when deadly pathogens arise. We need to take preventive action, by a identifying them and developing better diagnostic tests. The focus should be on "high-risk viral groups in mammals prone to coronavirus infections, such as bats, rodents, badgers, civets, pangolins and nonhuman primates with developing countries in the tropics, where wildlife diversity is greatest, should be the front line of this battle against viruses"

She continues to note that only once, these potential pathogens are mapped out, can regularly check for possible infections be analyzed and an outbreak can be caught before it turns into an epidemic, saving economies from epidemic costs (Qui, 2020)

However, the COVID -19 pandemic will surely serve a purpose to:

1) change the world and connect the world political powers and decision makers to the community– the government's power in decision making on risks will change,
2) to determine a set of new risks, which are now emerging and have been missed in our continuity plans, and
3) to learn from the experience of other countries such as Korea and Taiwan, who responded

proactively and successfully. These highlight the importance of democracies rather than those run by populist or authoritarian leaders (Menon, 2020).

As Menon, (2020) notes, the COVID-19 is proof of our interdependence. However, in all polities, there is already a turning inward, a search for autonomy and control of one's own fate. We are headed for a poorer, meaner, and smaller world. Finally, there are signs of hope and good sense. India took the initiative to convene a video conference of all South Asian leaders to craft a common regional response to the threat. If the pandemic shocks us into recognizing our real interest in cooperating multilaterally on the big global issues facing us, it will have served a useful purpose.

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