

Knowledge Sharing and Managing Intellectual Capital in the Times of COVID-19: Evidence from Polish Restaurant Industry

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Abstract: *Purpose:* The aim of this paper is to show how restaurants in Poland managed their intellectual capital (IC) in the COVID-19 crisis and how knowledge sharing (KS) helped them to survive in those dynamically changing conditions. *Methodology:* The study is based on qualitative research – semi-structured interviews with a few restaurant owners and managers responsible for the business operations during the first year of COVID-19 pandemic. *Findings:* Research results show that one of the key factors in the restaurant survival is their IC. Proper management of this capital allowed businesses to adjust to this unprecedented situation. Dynamic and intense KS between restaurants' owners, managers and employees fastened the process of adjustment and provided new kind of services necessary to successfully operate in the new reality. *Research limitations:* The paper takes into consideration only selected restaurants in the Pomeranian region in Poland. Hence, the results cannot be generalized. *Practical implications:* The paper shows how restaurants' managers and owners used KS and IC management in order to adapt their business operations to the COVID-19 reality. That can be inspiring for entrepreneurs and help them fully utilize IC of their employees and coworkers, as well as discover the benefits of KS practices. The study also shows the idea of supportive restaurant community and its important role in KS. It also shows arising cooperation between businesses in order to survive violent changes in the socio-economic environment. *Originality/value:* The paper focuses on dealing with the COVID-19 problems in the restaurant industry from the KS and IC perspective. So far, there are few studies of this kind that take the catering sector as the main subject of the research. Findings can be helpful and valuable not only for academics, but also for entrepreneurs and managers that seek knowledge and solutions they can use in order to grow and develop their organizations in the turbulent environment.

Keywords: COVID-19, intellectual capital, knowledge sharing, SME's, hospitality industry, restaurants

1. Introduction

The COVID-19 pandemic affected the whole economy since the very beginning. Lockdowns were provided suddenly which forced many businesses to stop their activity overnight. One of the most affected sectors is the hospitality industry which bases its operations mostly on tourism and people's daily needs for entertainment (Dube *et al.*, 2020). Suddenly restaurants and hotels were considered as dangerous, threatening with contagion. Their basic operations (sit-down services and accommodation) were forbidden by governments, and customers were scared of the new disease. That combination resulted in a rapid and huge decrease in demand and in consequence a drastic drop of revenues for the hospitality industry globally (Buffington *et al.*, 2020; Gursoy and Chi, 2020; Kim *et al.*, 2020; Yang *et al.*, 2020; Madeira *et al.*, 2021).

Restaurants were forced to rearrange their operations, find new ways of providing food services and manage to deal with disappearing demand for particular jobs (bartenders and waiters). Additionally, restaurant businesses are usually micro/small enterprises without any specifically formulated strategy and they operate on day-to-day basis. Restaurant owners and managers had to learn quickly and find innovative solutions not only to keep their employees' jobs but also to simply survive in the market.

Problems and challenges that emerged globally created the environment full of unknowns. Entrepreneurs sought for answers how to deal with occurring problems and what tools or solutions may be used to overcome them. Intellectual capital (IC) started to be seen as an important and helpful asset (Hamilton, 2020). It was shown that the survival of the manufacturing business during the crises strongly depends on the IC (Al-Omouh *et al.*, 2022). Another factor considered to be crucial is knowledge sharing (KS). Its impact on organizational performance (Ahmed *et al.*, 2020) and on innovation (Montani and Staglianò, 2021; Pellegrini *et al.* 2022) during COVID-19 crisis was investigated. The obtained results show the positive relation between KS and both organizational performance and innovation. Hence, KS and IC seem to be crucial in the survival of businesses during the COVID-19 crisis. Therefore, this paper is focused on what was the role of KS and managing IC in the survival of Polish restaurants during the pandemic. Using a small sample of Polish restaurants and taking the perspective of restaurants' owners and managers, we present how IC and its potential was used to deal with new, unpredictable problems and how KS helped in adjusting business activities to new conditions.

2. Literature Review

2.1 Knowledge sharing

KS is already well-known phenomenon in the field of Knowledge Management (Boer, 2005; Zheng, 2017). It may be defined as “the exchange of knowledge between and among individuals, and within and among teams, organizational units, and organization” (Schwartz, 2006).

KS requires a willingness to share experiences and know-how with other people to empower the knowledge of the whole team and organization. It is linked with trust among people who take a part in this process (Bolisani and Bratianu, 2018). That indicates the need of comfortable environment in which people seek to gain knowledge and develop themselves, improve their skills and achieve personal and organizational goals. Propensity to trust may be even considered as the precursor for KS behavior among employees. (Ogunmokun *et al.*, 2020). Considering the whole hospitality industry, KS positively affects service innovation performance and new service development (Monica Hu *et al.*, 2009).

Taking into account the COVID-19 pandemic, we can find indications of the positive impact of KS on the organization performance (Ahmed *et al.*, 2020) and that employees engaged in KS are more innovative, even facing the stress caused by the pandemic (Montani and Staglianò, 2021). However, those recent studies refer to the public and private universities and to technology-based firms. Hence, it remains unknown to what extent the positive relation between KS and organizational performance or innovation can be found in the hospitality sector.

2.2 Intellectual capital

The term of IC was coined to explain the difference between market value and accounting value of the firm. Not all assets are tangible, visible and easy to represent in the financial statement so the market value is often higher than accounting value of the company. IC can be considered as a concept, system, collection of assets, process or strategy (Molthar and Indarti, 2021). Thinking of IC as the collection of assets, it can be defined as knowledge that can be converted into value (Edvinsson and Sullivan, 1996).

There are two major approaches to IC. It can consist of two components: human resources and intellectual assets (Edvinsson and Sullivan, 1996), or three components: human capital (HC), structural capital (SC) and relational capital (RC) (Andreeva and Garanina, 2016). Human resources in the first approach reflect human capital in the second one. Structural and relational capital in the second approach can be considered as the components of intellectual assets from the first one. For the purpose of this study, we focus on the IC as perceived by Andreeva and Garanina. It allows us to compare our results and conclusions to those obtained by Leon, who focused on the strategies of restaurants during COVID-19 pandemic with regard to IC (2021).

HC is the knowledge, experience, skills, relationships and capabilities of employees. Usually, the knowledge possessed by employees is tacit, especially considering the restaurant sector. That means it is uncoded, difficult to copy, visible in the way employees do things. Tacit knowledge, according to its definition, is rather impossible to measure. Employee’s knowledge can be also explicit – in the form of certifications, codified in instructions of how to do things. That kind of employees’ knowledge is more common in corporations, law, financial, technology firms (Andreeva and Garanina, 2016).

SC refers to company’s intellectual property. An example of SC may be: patents, copyrights, procedures, databases, routines. It is the knowledge possessed by the company that is somehow codified. In the restaurant it can be the recipe, dress code, logotype, the website, learned schemes (Andreeva and Garanina, 2016).

RC represents relationships that company has with its customers, suppliers, competitors and other stakeholders. It can be the trust, loyalty built between the firm and its clients. It is very important especially in the catering sector where competitiveness is very high (Andreeva and Garanina, 2016).

More and more firms realize the significant role of IC as the source of value and profitability (Edvinsson and Sullivan, 1996; Harrison and Sullivan, 2000). Studies also investigate the actual impact of each component of IC on organization performance (Andreeva and Garanina, 2016). There are indications of usefulness of evaluating IC (Engström *et al.*, 2003) and evidence of positive relation between IC and return on assets in the hospitality and tourism sector (Costa, *et al.*, 2020). Additionally, IC positively affects innovation capability (Molthar and

Indarti, 2021). However, we have found only one paper about the influence of IC on restaurants' reaction to the COVID-19 crisis (Leon, 2021). It is based on secondary data from Tripadvisor and suggests that while trying to adapt to new market conditions, management concentrated on RC and SC, whereas HC was rather neglected.

2.3 Knowledge sharing and managing intellectual capital – joining concepts

Both KS and IC are strictly related to the knowledge that the company possesses. However, possession is not enough to benefit from it. The knowledge should be properly used to increase profits and improve performance. One way of using the possessed knowledge is sharing it – among employees (internally) or with other stakeholders (externally). A lot of studies investigating what affects company's performance take both KS and IC into account (Wang *et al.*, 2016; Allameh, 2018). There are indications that these two concepts are strictly related (Attar, *et al.*, 2019; Oliveira *et al.*, 2020). KS is an example of managing IC. In the construction industry IC is positively related to innovation performance and promotes it through KS (Li *et al.*, 2019). There is also the evidence that KS is strictly related to firm performance and strengthens IC. The relationship between these two concepts is positive (Wang *et al.*, 2014). However, little is known about how COVID-19 pandemic influenced the above-mentioned relations in hospitality sector.

3. Methodology

Most of the above-mentioned literature regarding IC and KS in COVID-19 pandemic bases its results on quantitative data. Only Pellegrini *et al.* (2022) decided for qualitative research, more specifically case studies. However, this study concerns telemedicine company. Hence, we decided that qualitative method of research may bring new and valuable insight into restaurant businesses during the pandemic. IC is intangible asset and measuring it is extremely difficult and may bring contrasting or not adequate results, depending on the chosen method of measurement of each IC component. Qualitative research enabled us to find intellectual capital possessed by restaurants directly and in which forms it appears in this kind of business and how it is valued by those who are responsible for managing it. Following the guidelines of Creswell (2009) we have decided to use semi-structured interviews with convenience sampling. The interviewees were managers and owners of restaurants in Tricity (Pomeranian region in Poland). Such method enabled gaining information about how each restaurant individually got affected by the COVID-19 pandemic and how it tried to cope with emerging problems and challenges. Through the interviews it was possible to get perspectives and experiences of managers and owners (Hammarberg *et al.*, 2016) on how restaurants manage their IC and use KS trying to survive the COVID-19 crisis.

Table 1: Research sample.

Restaurants	Type	Interviewee
A, B	Fine-dining	Manager
C, D	Fine-dining	Owner
E, F	With specific cuisine	Owner
G	With specific cuisine	Manager
H	"Home kitchen"	Owner
I	"Home kitchen"	Manager
J	Based on regional products	Manager
K	Canteen	Co-owner
L	Canteen	Brand manager

Interviews were conducted with 12 owners and managers. The sample consists of 5 types of restaurants:

- Fine-dining
- With specific cuisine (e.g. vegan, Thai)
- "Home kitchen" – restaurants serving typical Polish dishes with informal service
- Based on regional products (mainly fish)
- Canteen – entertainment venues (organizing vernissages, DJ sets etc.) serving popular dishes like pizza or burgers but in the idea of slow-food.

In the sample there is no typical fast-food restaurant because they are usually familiar with food delivery as their products are adjusted to takeaway. The aim of this study was to investigate the situation of businesses for which the pandemic meant major change in activity.

Our aim was to find the answer to the research question: *What was the role of IC and KS in the survival of Polish restaurants in the COVID-19 pandemic?*

The interview included the following questions:

What were the key problems during the pandemic?

What were the most valuable resources they had and how they were used?

How employees participated in the process of adjusting to new reality?

How did they learn to operate in dynamically changing environment?

Inspired by some studies (Kim *et al.*, 2021; Leon, 2021; Bratianu, Bejinaru, 2021) and the research gap presented in the literature review and following the suggestions of Gursoy and Chi (2020) to generate new insight and knowledge regarding the hospitality industry, we decided to formulate 4 interview questions as presented above. Questions Q1 and Q4 are inspired by the publication by Kim, Kim and Wang (2021), as it also refers to strategies used by restaurant businesses during pandemic. Some indications in this respect can be found in the study by Bratianu and Bejinaru, in which the COVID-19 pandemic is said to induce a switch from deliberate to emergent knowledge strategies with restaurants as an example (Bratianu, Bejinaru, 2021). However, it was a comparative analysis of these two types of strategies and the paper did not provide any specific examples of how restaurants in fact operated and managed their business during the pandemic. Furthermore, apart from the study by Leon (2021) focused on IC, there are no papers addressing problems mentioned in Q2 and Q3 with regard to hospitality sector.

4. Results and Findings

To gather the most relevant information all interviews were transcribed. The most relevant results and findings are presented in relation to the main questions of the interviews.

4.1 Key problems faced during the pandemic

The majority of interviewees mentioned uncertainty about the future and financial instability as the main problem during the pandemic. Restrictions and regulations concerning hospitality sector were changing dynamically forcing businesses to adjust the way of operating overnight. With decreased income came increased expenses for delivery boxes, cleansing products, gloves and masks (which were difficult to get from suppliers at that time). What is more, all managers and owners mentioned that their main goal was to keep the staff unchanged. The owner of restaurant D said: *“The biggest stress I had concerned my people. I really suffered from it, walking and thinking about it constantly. I prepared piles of papers for different scenarios: one with dismissals, one with reduction of working hours, one with unpaid leaves. I didn’t know if I would be able to pay them and keep them with me.”*

To reduce costs all restaurants decided to negotiate both with the owners of the premises to reduce the fees or postpone the payments and with suppliers to arrange new agreements for alcohol or other products. It is the direct use of RC – relations built with stakeholders during the time of providing the business. The owner of restaurant E said with emotion: *“We are surrounded by so wonderful and supporting people. The owner of the premises [we cooperated for many, many years] agreed to decrease our renting cost to the lowest possible level. She decided to resign from their own benefit from renting. She was sure that we will survive and will not let her down [deceive her]. [...] It was worth to cooperate with all people honestly and fair for all these years”*. Only in case of restaurant D and H it was not possible to settle more convenient conditions of renting so both restaurants decided to find a new place. In these cases, the new location was found thanks to the relations with other entrepreneurs that used their own contacts. Not only the use of RC is visible here, but also KS between entrepreneurs with regard to real estate market, which can be even interpreted as the evidence for the competition in times of pandemic.

4.2 The most valuable resources and the way they were used

As the most valuable resources restaurants perceived staff and brand, only restaurant L did not mention employees. Skills and experience of employees, being a part of HC, proved to be important and useful during the crisis. The owner of restaurant E claimed: *“Mostly thanks to our team this restaurant survived, we worked together for so many years... [...] They trusted us and wanted to help us to survive as they could”*. Brand (SC), built by the quality and the type of served food was reported as an extremely powerful tool that prevented restaurants from disappearing from customers’ minds.



The majority of restaurants focused much more on the social media through improving the quality of photos of the food and increased frequency of posting. The owner of restaurant H declared: *"We took care of it as never before! Well, before we even didn't have to take care of it. But since we were closed, we needed to reach our customers somehow. And that was the only way"*. The goal was to maintain contact with clients and to remind them that restaurant still existed and appreciated every order. *"We added personal note with the graphics from our employees in the packages with food for every customer with our thanks to them and showing them how grateful we are for their help"* – said the owner of restaurant K. Nearly all restaurants (apart from D and F) used their HC for being in constant and fruitful contact with customers, using own employees' skills, instead of outsourcing marketing activities.

Restaurant G and E relied very much on its brand, hoping that the specificity of their cuisine would allow them to survive. One of the respondents (G) claimed: *"We have very strong brand for which we worked for a long time. We simply thought that our cuisine will defend itself. We based on this brand and did what we used to do as good as always"*. Thanks to the strength of their SC, customers ordered food very often, in case of restaurant G it was even necessary to invest in extra phone numbers to pick up orders and to develop agreements with delivery services.

Restaurant I during the time of lockdown focused on developing skills of their employees by providing many courses and trainings. Restaurants K and J mentioned giving non-interest loans or donations for employees whose income decreased significantly during the lockdown because of decreased number of working hours and lack of tip. Elasticity and versatility of employees enabled restaurants D, H, J and I to renovate the local – painting the walls, renovating furniture. All restaurants needed to rearrange their space because after the lockdown there was a need to maintain the proper distance between customers. That also was the task for employees.

HC in the form of skills and experience of workers was used to find and introduce innovative products and services. The restaurant K organized special meeting with the whole staff and asked them: *"What can you do best? How can we use it here from now on [in order to survive]?"*. Some examples of new solutions are: pastries in restaurant K, jars with dishes in restaurant J, boxes with food to share with the necessary promotion (graphics, brochures, website) to reach customers in restaurant B, marinated meat for barbecue in restaurant C. In restaurant F "surprise package" (box with half-ready products for one week) was provided and in restaurant H the whole staff was involved in creating new menu for the new location. In Restaurant E high skills of one of the waiters allowed him to take care of their social media promotion.

4.3 Employees' participation in the adjustment process

Employees, representing HC, were considered as the most valuable resource for the restaurants during pandemic. In nearly all of the interviewed restaurants they were deeply engaged in decision making during the pandemic. The only exception was the restaurant L (which is a part of big restaurant chain). In this case all decisions were made by top management. This top-down approach which neglected the value of employees resulted in quitting the job by most of the staff. After reopening this restaurant suffered many problems connected with the deficit of well-trained staff. According to the interviewee, restaurant L is in operation only due to big financial reserves and the fact that during the second lockdown the owners decided to cooperate with delivery services.

In other restaurants employees were extremely engaged in efforts to enable the business survival during the pandemic. Employees showed high flexibility regarding their positions. Most of restaurants mentioned switching the duties between the staff, e.g. waiter or bartender became a driver or cook. The owner of restaurant F said: *"They [employees] were so elastic and understanding [regarding their duties]... They wanted to stay here, with us. They worked when it was very cold and worked longer and harder [when it was necessary]"*.

It also happened that the whole staff was engaged in the process of renovation (D, H, J, I). *The owner of restaurant D said: "Everyone came back to work with us [after the time of closing the restaurant during hard lockdown] and helped us with everything! They painted walls, helped with moving things [furnitures, cattlery]. They didn't complain, they didn't try to avoid this hard physical work"*. Waiters and bartenders took the responsibility of marketing on social media (B, E, H, J). In order to find out the needs of customers, employees of restaurant J provided the research among their families and friends that brought guidelines for cooks on what menu can attract more customers. Such employees' engagement proves the importance and power of HC for the restaurant business during the pandemic.



4.4 Operating in dynamically changing environment

Most of restaurants described the process of learning to operate in dynamically changing environments as “learning by doing”. After making decision restaurants observed and evaluated the effects of it. Restaurant K mentioned making many mistakes and experiencing dissatisfaction of customers until their dishes in jars achieved proper quality. Restaurant J tried to provide many different dishes that were supposed to suit the taste of customers and only few of them turned out to be good choices. All restaurants after reopening had to rearrange their space and it took them some time to coordinate the service with new layout of tables and new duties that occurred – disinfecting tables regularly, making service with gloves and masks, controlling whether guests are respecting the rules, etc. Manager of restaurant J described this period as: *“It was like you have to suddenly use the language which you haven’t spoken for many years. You know that you can speak this language but it takes some time until you are once again fluent in it.”*

However, the trial-and-error method was not the only way of learning. KS behaviors between the staff and managers/owners was another one. The majority of respondents stated that all employees were invited to share their ideas and knowledge to find new solutions in order to cope with emerging changes caused by the pandemic. There is also a case of KS with external stakeholders as a part of learning process resulting in shortened time needed for adjustment to new conditions: the owner of restaurant D participated in international conferences for women in gastronomy on which each entrepreneur shared their experiences and conclusions. Moreover, she exchanged knowledge with owners of restaurants in various cities of Poland. She admitted that this KS experience was very motivating, inspirational and gave her a lot of power to cope with the crisis. The owners of restaurant K claim they depended on KS between restaurant owners from the same area. They exchanged the information about what system of delivery is the most sufficient, which government restrictions are obligatory and which are optional, what can be done to assure more working hours for employees. The owner of restaurant F mentioned the special competition for entrepreneurs organized by Pomeranian Development Agency Co. During this competition entrepreneurs presented their own ideas on how to cope with the pandemic and exchanged these ideas between each other. A very interesting case regarding the process of KS was presented by the owner of restaurant H. There is a big Polish community of restaurant owners and managers in the form of private Facebook group. The owner of H admitted that thanks to this group she was able to fasten the process of applying for financial aid from the government, she got a lot of advices regarding food delivery and she received recommendations for visual presentation of dishes for the restaurant website. Entrepreneurs from the same area even helped each other in promotion – they shared links of each other’s restaurants and invited people to support all local restaurants during the crisis. This is the example of KS on a really big scale and actions taken by the members of this community are clearly an example of cooperation (Gnyawali and Ryan Charleton, 2018).

5. Discussion

Implications from the obtained results are quite universal. It turned out that the type of restaurant does not matter with regard to managing IC or KS during COVID-19 pandemic. Our data shows that all the components of IC were useful during the time pandemic crisis. HC in the form of skills and experience of employees played the crucial role from the perspective of managers and owners. Thanks to HC restaurants were able to quickly find and provide innovative solutions and products which were necessary to operate in dynamically changing environment. Moreover, the process of adjusting the operations to new conditions was easier. Such findings contrast with the conclusion of Leon whose research suggested that managers and owners were mostly focused on RC and SC while HC was neglected (2021). Our findings not only show the usefulness, potential and relevance of HC, but also prove that managers and owners appreciate HC as the most important resource during the crisis.

Using relations with stakeholders (RC) and basing on the restaurants’ brand (SC) proved to be helpful in the aspect of financial problems and demand for services. Long-term collaboration with suppliers or premises’ owners resulted in successful negotiations on reducing costs. Managing RC by focusing on marketing and communication with customers resulted in sustaining demand on the necessary level. However, these actions were only possible thanks to the engagement of employees and their readiness to take new responsibilities. The success of maintaining the relations with customers was the result of building and maintaining strong brand before the pandemic. The only disparity in findings regarding types of restaurants concerns fine-dining restaurants and restaurants with specific cuisine with regard to the SC. These restaurants depended on SC to the higher extent than other types of restaurants, mainly in order to attract customers. The reason for that may

be the fact that such restaurants serve dishes that are somehow unique, not so easily available on the market and rather difficult to prepare at home.

However, it is evident that all components of IC are interdependent and each component had a crucial role in the survival of restaurants. Similar conclusions concerning the importance of all IC components are found in the paper by Alnassafi on the role of IC in crisis management in private universities (Alnassafi, 2022). Additional support comes from the research by Al-Omouh *et al.* (2022).

A lot of innovative solutions provided by restaurants during the crisis came from employees. Therefore, we claim that contrary to Molthar and Indarti (2021) not that only RC and SC, but also HC plays pivotal role in innovation capability. According to our results, the idea of innovation occurred thanks to HC, while RC and SC were the helpful tools to adapt it. Many restaurants encouraged employees to participate in finding solutions to deal with pandemic, to share their knowledge and skills in front of the whole staff. We can see the creation of open and supportive environment with a lot of trust towards employees, enabling KS behaviors. These restaurants in fact provided innovations proposed by employees. That may indicate KS behaviors induce employee innovation as suggested by Montani and Stagilanò (2021) and Hu *et al.* (2009).

In our research KS appeared also on higher level – between restaurants' owners and managers. Thanks to this, restaurants were able to learn on each other's mistakes, find answers from people facing the same challenges, inspire and motivate each other, as well as fasten the process of adjustment to new conditions. Interviewees that participated in KS process between competitors did not mention any negative outcomes of it as suggested by Crick and Crick (2020), but rather described it as a very helpful and powerful tool.

6. Conclusions

In this paper we presented the pivotal role of IC in the survival of restaurants during COVID-19 pandemic. In contrast to other studies, our results show the importance and potential not only of IC in general, but also of its component – HC – in the time of crisis. It can be useful insight for restaurants' managers owners that may rethink the value and potential of their HC and how relevant it is for the business success. Findings also indicate that employees (HC), given the trust and support and encouraged to KS behavior, turn out to provide many innovative solutions which are especially needed during crisis. In this study we showed that as the result of the COVID-19 pandemic KS evolved to another level and associated competitors that relied on each other's knowledge and experiences during crisis. It is food for thought for all entrepreneurs and it may encourage openness for competition when environment and market is changing dynamically.

This study has several limitations. The sample consists only of 12 restaurants located in the small region of Poland and they are not representative for the whole industry. The obtained results cannot be generalized and may not be relevant as interviewed restaurants operate in the limited environment and according to local regulations. Moreover, the study was based on qualitative research and answers of interviewees are very subjective, so the results should be treated with caution, especially because of limited triangulation.

This paper offers many implications for further research. Studies concerning the role and impact of IC on business performance during such extraordinary crises like COVID-19 pandemic are scarce. Many studies on IC use quantitative methods and we believe using qualitative research may offer a deeper understanding of IC phenomenon and its role. Finally, the area of KS between competitors in the hospitality sector creates space for further investigation. This sector is a very competitive market so creating KS community is quite unique in this case. Making research in the context of KS among restaurants could offer very surprising and inspiring results.

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