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Balancing International Support Work for Sustainable Future

Case Wipak Group

DEGREE PROGRAMME IN BUSINESS MANAGEMENT
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<p data-bbox="312 701 424 730">Abstract</p> <p data-bbox="312 772 1449 1061">The Covid-19 pandemic derailed the business world in the spring 2020. Organizations were used to promote face-to-face meetings and frequent business trips were organized. Suddenly all changed, and the business world noticed that everything is still working in the remote mode. Decreased travelling costs and smaller environmental footprint empowered companies to rethink the sustainable future. Inevitably, the new trend meant also less socializing and face-to-face interaction with colleagues. Hence, management is in a constant balancing battle, whether to prefer human factors and physical presence over performance management and overall efficiency.</p> <p data-bbox="312 1104 1449 1393">The theoretical framework of this thesis was built on a scale that described the key concepts in the balancing of human factors and performance management in the system support work. The research itself was mixed-method research and the strategical choice was a case study with a constructive approach. Surveys and interviews were selected as the primary data collection methods in the case company. Survey results were compared and partly benchmarked with another company to validate the results. The secondary data consisted of Hofstede's cultural dimensions, and the case company's travel expenses and carbon dioxide emission data.</p> <p data-bbox="312 1435 1449 1724">Organizational culture, national culture, individuals with their personalities, behavior, personal needs, targets, and experience are influencing on the support work and related decisions. The interaction is reciprocal from a support team to business users and from business users towards a support team. The foundation of the support work lies in organizational culture. The proposal for the future support model is a hybrid model, where most of the tasks are conducted online, but sensitive items shall be organized onsite. It regards that face-to-face interaction is still important and efficient, but it also considers cost-efficiency, environmental impact, and employee well-being.</p>		
<p data-bbox="312 1785 453 1814"><u>Key words</u></p> <p data-bbox="312 1821 1449 1890">Remote work, onsite presence, Covid-19, interaction, basic needs, national culture, organizational culture, performance management, sustainable development, travelling</p>		

FOREWORD

I have always been interested in psychology and human behavior, how our minds are functioning, and how culture is impacting on it. When I connected the dots between this interest, the pandemic, team management, and the system support in a multinational corporation, the thesis idea began to find its form.

I would like to express my gratitude to my primary thesis supervisor, Anne Pohjus, who guided me throughout this project in a firm, supportive, and professional manner. The collaboration could not have been any better. I would also like to thank my second supervisor, Riitta Blue, for the encouragement and guidance with grammar. Additionally, I would like to extend my special thanks to my supervisor at Wipak Group, Mika Palosuo, who enabled this study and patiently listened to my enthusiastic findings during the research journey. I would like to also thank all my Wipak colleagues for supporting the thesis by participating in the surveys or interviews, by supporting the data collection or by just being there for amazing discussions. My appreciation is also shown to my former UPM Communication Papers' colleagues that they invested time in answering the survey. It was very valuable for the research. Finally, the greatest inspiration and passion for writing and researching comes from the family and friends, whom I show my deep appreciation.

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1 INTRODUCTION

Covid-19 pandemic hit the entire world in the spring of 2020. The new disease forced countries to present extreme measures to prevent the virus from spreading. Suddenly, business trips and face-to-face meetings were stopped, and companies were experiencing a completely new situation. Employees remained at home offices and only ones having physical work tasks were present at the office or factories. Firms were forced to postpone planned operations, such as system rollouts and continuous improvement projects, believing that the old normal circumstances will return. Once infection rates kept climbing, the only possibility was to continue somehow. Today's modern world offers several online collaboration tools with numerous features including cameras, whiteboards, and chats. Soon, it was clear that for example operations, projects and trainings may continue online.

Still in 2022, the pandemic exists although restrictions are gradually lifted. Operations are running without constant face-to-face business meetings. What is the future of face-to-face interaction? Travelling costs and carbon dioxide emissions have declined. Employees have more efficient office time and more time for personal well-being due to less time used in commuting and business trips. Is this the trend to be followed? Is onsite social interaction still important and required? Management is running a constant balancing challenge where human factors are scaled against performance management.

Many of international support requests require travelling to fulfill customers' requirements, social needs and to pursue complete face-to-face interaction. On the other hand, costs must rather decline than climb up. Face-to-face interaction leads to carbon dioxide emissions and environment exploitation. Teams must remain highly efficient, and it is often assumed that all the time used in travelling is the worst example of inefficiency. Companies shall emphasize strong safety measures, but travelling always contains risks such as infections, driving in a foreign country in unusual traffic

conditions, possible terrorist threats and flying overall. Travelling can also cause stress, which is a source of several risks and problems in human body. How should management balance this all without compromising any human or performance factors?

This thesis investigates, how the pandemic impacted on the case company Wipak Group and its solution expert team and key users. The theory will reveal, what balancing of human or performance factors in principle means, and how it influences on the support team and its internal customers. The main emphasis is on researching, how to produce the support service efficiently in remote-oriented collaboration mode. It is also investigated, what is the importance on face-to-face interaction, and what kind of possibilities or challenges there are in remote interaction. The thesis will explain, what is the efficient, sustainable, and safe method to organize support without forgetting the stakeholder perception. The next chapter presents the case company and the background for the research.

2 CASE COMPANY: WIPAK GROUP

This research is conducted for Wipak Group. Wipak Group is a packaging material company in a Finnish, family owned Wihuri Group. Wipak develops and produces advanced and modern flexible packaging material and solutions for food and medical industry. (Wipak, n.d., section “About us”.) The company has 11 producing plants in nine different countries. Additionally, Wipak has sales offices in 10 locations. (Wipak, n.d., section “Contact us”.) Production plants are located in Finland, the United Kingdom, the Netherlands, France, Germany, Poland, Italy, Spain, and China. The working environment is international involving several cultures.

Wipak Group is highly innovative with the ground-breaking mission and future vision. The target is that customers can ship their products to people in safe and sustainable packaging. Wipak aims to reduce carbon footprint to zero in the near future by being the most sustainable flexible packaging company. The company values are trust, together, future and winnovation. Trusting each other is an important matter standing for doing the right thing, keeping the promises, and following the code of conduct. Wipak family is open and transparent in communication. Respecting, helping, challenging but encouraging a colleague is a good example of being together. Well-being and safety of employees are valued. Being together also means laughing together. Wipak is ready to strive for a more sustainable planet for tomorrow in a value assigned for the future. Winnovation consists of Wipak’s innovation. The company is curious and open-minded and ready for long-term partnerships with customers. Wipak is always determined to try something new and the teams learn from their mistakes. (Wipak, n.d., section “About us”.)

Furthermore, this thesis analyses Wipak Group’s solution expert team. The researcher works as a team leader in the team of solution experts. The solution expert team produces business support services for Wipak Group. The team is a remote team working in three different countries, in Finland, Germany, and Poland. Their internal customers are located at the production plants and sales offices. To provide excellent service for Wipak’s business, one must understand human’s basic needs, culture, and company environment, and to balance it against the required performance indicators.

The support service consists only partly of technical support. The other significant part is to understand the internal customers and make them confident with the systems by supporting their own learning.

2.1 Wipak's business support service model

This thesis will be built around a word "support". Here, support stands for business IT support in the enterprise resource planning system (ERP) SAP and in the other tools that are integrated in the system landscape to run the daily business processes at Wipak. Support represents proactive solving of daily problems and questions presented by key users and end users. Support can be solution specific training, user instruction creation and updating, or it can be any internal consultation. Support also includes project work, as the global SAP roll-out project is still unfinished. The last rolled-out plant is Spain, which is scheduled in 2023. Hence, it is excluded in this research. In this thesis, support does not indicate basic computing skills or Windows tools support like Outlook, Word, or Excel issue handling.

Wipak's business support department strongly follows a typical enterprise resource planning (ERP) system support strategy. The functions are management team, solution expert team, master data team, process owners, and robotics team. This thesis mainly concentrates on the solution expert team. In the business side, Wipak has super key users, key users, and end users. A solution corresponds to a process part in order-to-cash process. Wipak's solutions are purchasing, sales and invoicing, pre-press, production planning, production execution, quality management, logistics, finance, controlling, and plant maintenance. Solutions can be run in SAP or in the other tools interfaced with SAP.

Solution expert owns one specific solution area and is responsible for the global support function. Owning a solution includes also other tasks than support. These are system development, system configuration, testing and documenting changes, updating functional and technical specifications. Solution expert works closely with a process owner of that area. While solution expert handles the solution, process owner

owns the relevant process and often works as a group-level business manager of the same function. Super key user is a global key user of the solution.

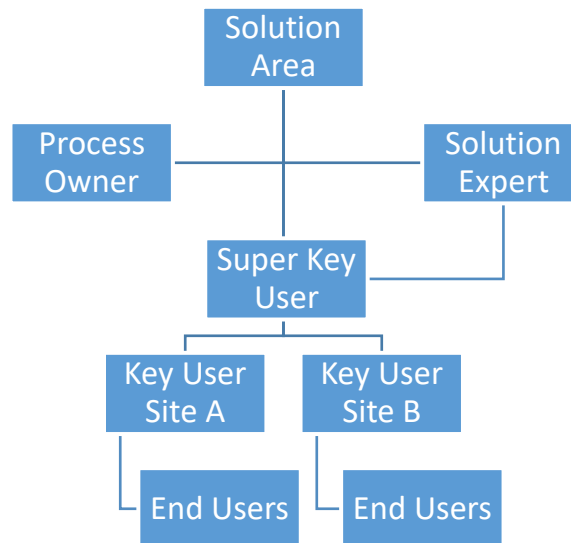


Figure 1. Wipak's business support roles

Super key user acts between local key user and global solution expert. Key user is a local expert of a solution. End user is a business user using order-to-cash tools in his or her daily work without support role. End user should first contact relevant key user and in case key user is not able to support, key user contacts solution expert. These roles and their relationships are described in Figure 1.

2.2 Onsite presence requires exploitation of resources

It has been assumed that to produce excellent key user support, onsite presence is required. Before Covid-19, the travelling load was enormous. For some of the team members, travelling days reached almost one half of the year's working days. Several occasions required onsite presence. They felt it was motivating and even fun to work with the colleagues face-to-face, to support key users and end users in the same physical premises. Building trust in work relationships entails social contacts. The team, including the researcher, perceived that they provided excellent service that reflected to Wipak Group's values trust and together. However, it became visible that this travelling lifestyle harms personal well-being and relationships. Travelling time must also be rated as unused personnel potential.

Onsite presence requires travelling and travelling produces costs. When targeting at a more profitable result, these kinds of costs in supporting functions are often measured as a burden. When there is a strong pressure for cost cutting, IT functions and travelling overall are the natural first ones. This leads to an everlasting balancing race, whether a support request qualifies for travelling or should it be managed remotely. Additionally, Wipak Group targets to be carbon neutral by 2025. This is a new green value element in the balancing. The solution expert team should operate efficiently, but all the time used in travelling is inefficient. It directly decreases the amount of active office days. Wipak Group strongly drives for work safety as one of the performance indicators. Travelling always contains risks such as infections and driving in a foreign country in unusual traffic conditions.

At the moment, only high-level guidelines are available regarding travel justification and decisioning. The basic principle is to travel as less as possible with as less cost as possible. Wihuri Group has a Travel Policy document, which instructs for example what qualifies to occupational travel, which travelling method to select, what is the daily allowance policy, what is the lodging policy, which costs are relevant to travel expense invoice, who authorizes travelling requests and approves invoices (Wihuri Group, 2020). Each travel request is recorded in SAP Concur travel management system and the request must be approved by the line manager before any travel arrangements.

2.3 Examples on Covid-19 effects on the support work

It is obvious that the pandemic has dramatically influenced overall daily working. Pre-pandemic there was an option to evaluate, whether a support request can be handled remotely or onsite. During the pandemic years 2020–2021, everything had to be managed remotely. According to a survey conducted by Finnish Entrepreneurs (Suomenmaa, 2021), a third of Finnish companies will reduce work travelling permanently post-pandemic, and a fifth plans to decrease business trips by over half. Less than half of the companies will continue in the earlier manner. Most of the reductions will happen in manufacturing industry. It can be assumed that less travelling

causes probably cost and time savings, and positive impacts on employee well-being. (Suomenmaa, 2021.) Here are a few examples regarding the change at Wipak.

SAP go-live training was carried out totally onsite in 2018 for the Wipak United Kingdom project. Each solution had a minimum of one week's training onsite in addition to other project tasks, equivalent to travelling from four to six weeks. In 2020 for Wipak Italy, this was managed completely remotely. Several topics were addressed in Teams, but especially observing exercises during the training session was tough. It was challenging and took more time. Users were feeling left alone, and the solution experts were helpless, when finger-pointing on screen behind backs was not available.

SAP go-live was conducted totally onsite for the United Kingdom project. Each solution supported minimum two weeks onsite. In 2021 for Italy, this was again managed completely remotely. Especially in production and logistics, several topics could have been addressed more efficiently by being present. It is difficult to show and interpret pallets, pallet labels, raw materials, raw material labels et cetera via mobile phone screen.

The solution experts visited Wipak's production plants frequently. This enabled to be acquainted with key users, to follow up and shadow their daily tasks, to point out more efficient ways of working and to socialize after office hours. Later, working together remotely is a lot easier, when the other party is more familiar on a personal level. It can be stated that unofficial process and solution audits were conducted while supporting key users. Now of course, transactions can be controlled remotely in the global, integrated SAP system. Physical presence is though lost and not all inefficiencies are tracked.

Sales offices have been supported remotely also before the pandemic. They are using a minor part of Wipak's order-to-cash process. Key users at production plants are supporting sales offices related to their site. It is rare that a support request from a sales office could not be solved by a local key user. Hence, they are excluded when researching, how to balance onsite and remote support. The next chapter will present the objectives and purpose of the research by revealing the theoretical framework and the research questions.

3 OBJECTIVES AND PURPOSE

It is assumed that the onsite presence is still required in the business support work, although seemingly all is working as desired in remote mode. It is also assumed that new ways of working due to the pandemic have changed the support team and several matters can be handled remotely. Based on the research results and conclusions and as a next step, a service offer will be prepared to describe which kind of service the solution expert team provides. The offer will state, which kind of support requires onsite activities and which kind of support can be conducted remotely. This will guarantee that key users and end users will have the required support. They know what to expect and which kinds of services are available. The solution expert team will have clear guidelines, when travelling is required or allowed, and under which circumstances it is justified to stay at home. This is a key part of a well-defined requirement regarding support level. Once the study is concluded, it will be possible to steer the team towards the desired result in balancing onsite and remote support. The support offering should be so clear that there is no need to justify possible decisions to travel or to explain handling a support request completely remotely.

3.1 Balancing solution support's work

One illustrative way to describe this constant balancing act is presented in Figure 2. Business management is in a constant battle, which end of the scale weighs more or are they well in balance. If they cannot be in balance, which one is allowed to weigh more?

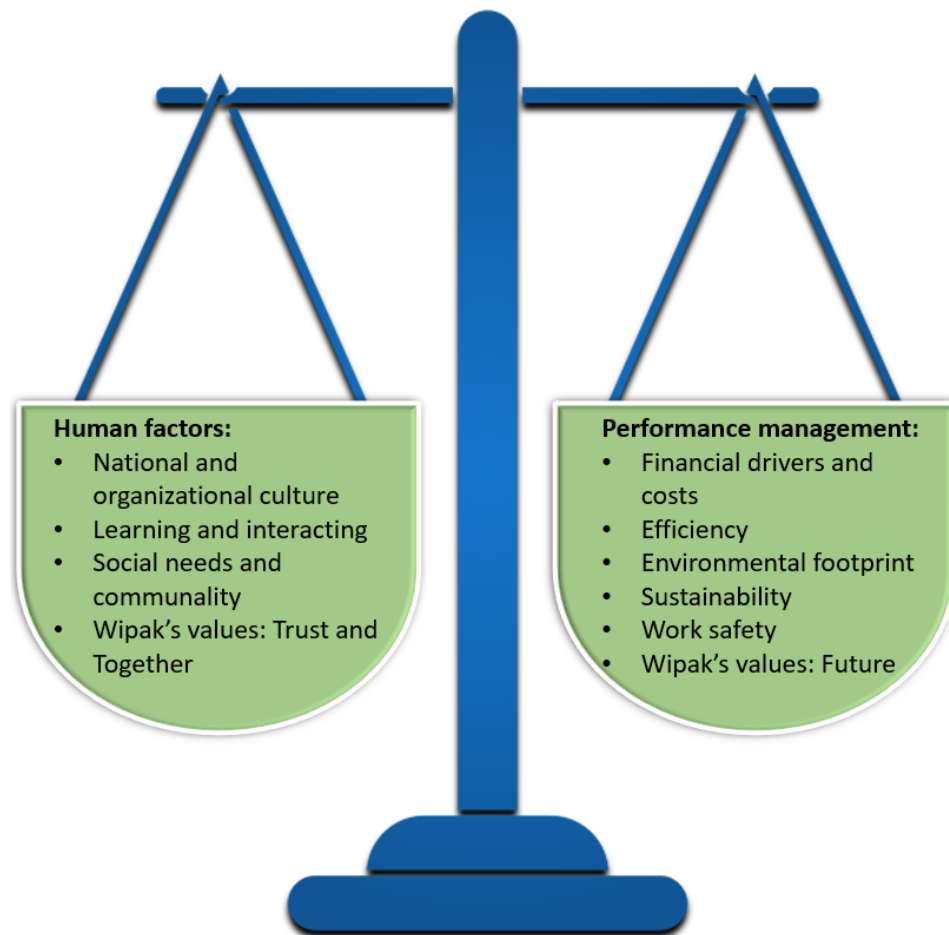


Figure 2. Balancing between human factors and performance management

The left end of the scale lists human factors. When considering the support service, it is a human interaction point, where a support team member is in connection with a key user or an end user. As humans are in question, humanistic factors such as culture, learning, social needs, and communality are in a significant role. Each individual is a personality, whose emotional state affects in the interaction. Wipak Group's values together and trust emphasizes support relationship well. The other end of the scale represents more tangible and quantitative factors under the concept of efficiency. Business management must constantly evaluate business strategy and performance indicators. Business units should remain efficient and economical in their transactions by maintaining low-cost level. All the activities must drive for environmentally friendly and sustainable values without forgetting safety. These efforts are incorporated in Wipak Group's key performance indicators and in the company values for the future. Wipak's remaining value for winnovation is excluded from the research, as this research does not investigate innovation matters.

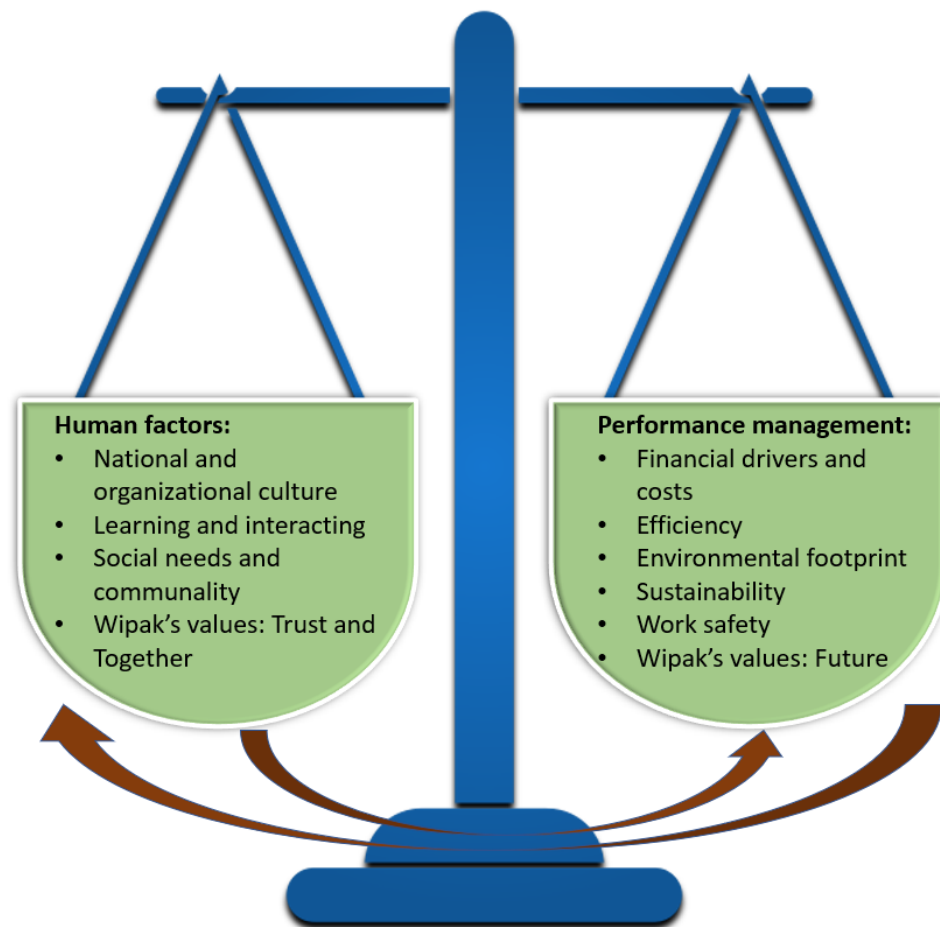


Figure 3. Causal relationship of deduction

Figure 3 explains, how the scales is swinging in balancing business management decisions between human factors and performance indicators. Decision-making often starts from a support request, which is based on face-to-face learning requirement. Next, it will be analyzed, whether the support request can be fulfilled in terms of financial situation and costs. Furthermore, it should be understood, is it possible to fulfill the request remotely or will cultural or social background require onsite present to achieve an efficient outcome. The decision cannot be concluded without considering employee's work safety or the environmental impact of the business trip or overall efficiency. Lastly, the support must be offered based on Wipak's values together and trust, but the decision shall be scaled against the third value of the future.

3.2 Research questions and objectives

This research is conducted as applied research. The purpose is to improve understanding in the presented management dilemma and to propose new ideas and solutions for it. Practical findings with new knowledge will emerge. (Saunders et al., 2019, p. 10.) This primarily impacts on the case company Wipak Group and on the solution expert team. As Covid-19 has permanently affected working methods by pushing offices more towards remote working mode, the research will provide topics worth considering to anybody working in the business world.

The main research question is How to produce Wipak Group's solution support services efficiently and economically by fulfilling support requests without compromising the sustainable future? This objective is supported by the following additional questions.

- How to balance remote and onsite support?
- When is physical presence required?
- What is the importance of physical presence nowadays?
- How does the culture effect on the need?
- What are the prerequisites for professional online support?
- How to run solution support efficiently and sustainably by travelling less but to maintain the same or even better service level?

The aim is to research, what is the good balance between remote and onsite support. The research will find out, in which occasions physical presence is required and when the support may be offered online. The cultural aspects, background and human's basic and social needs will be considered. The research will present the best ways of interaction in common support situations with the manufacturing sites. The results will be scaled against the target to reduce carbon emissions without forgetting the travelling cost impact. The travelling cost impact stands for an economical effect, personnel's well-being, lost working hours, number of travelling days and travel costs per day. It includes comparing hotels, car rentals and flights to find the most cost-efficient option. One important consideration will be safety in travelling.

Geographical location of the plant is one significant variable in the research. Naturally, Wipak China factory has always less visitors than Wipak Finland or Wipak Germany. On the other hand, once travelling to China, people often spend two weeks onsite instead of one. By this way, the distant location inequality is balanced. Although located in Europe, travelling to Wipak Polska or Wipak Italy is not simple either. When a direct flight is not available or there are flights with stopovers, people still are required to drive hundreds of kilometers by car. These restrictions are causing natural justification in favor of remote support.

The research theory is based on the scale presented in Figure 2. The research will study cultural dimensions and human basic and social needs with online and face-to-face environment comparisons. It will focus objectively on both environments dealing their pros and cons equally. The other part of the theory will be performance indicators in strategic management such as financial drivers, costs, efficiency, sustainable environment, and work safety. This will be reflected with the earlier presented softer values. The dual theory will be compared to the data collected in the interviews and surveys. When defining the support, it stands for supporting manufacturing sites in SAP and in the other tools interfaced with SAP. Sales offices are excluded, as they have always been served remotely. In addition to this, Spain's production plant is excluded as they do not use SAP yet. Support does not indicate basic computing skills or Windows tools support like Outlook, Word, or Excel issue handling. The research does not reflect, which ways of interaction enhance feeling of presence in remote environment or how to be generally more present via remote collaboration tools.

The overall study concerns Wipak Group. Wipak has so many manufacturing sites that repeating the research in different cultural clusters should provide similar results per cluster to prove the reliability in humanistic values. However, stronger reliability will be gained by using benchmarking in survey questions. Same survey questions will be sent to few other companies with a similar support structure. After presenting the case company and the objectives of the research accompanied with the research questions, the next chapter provides the research design and methodology to solve the research questions.

4 RESEARCH DESIGN AND METHODS

Research design is firstly constructed based on assumptions. Ontological assumptions regarding experienced realities, epistemological assumption for human knowledge and axiological assumptions derived from the values of the researcher have influenced the research questions. Reliable assumptions are required to build a credible research philosophy, which completes the methodological choice, research strategy and data collection approach. All these compatible elements originating from assumptions formulates a coherent research project. (Saunders et al., 2019, pp. 130–131.)

The research philosophy adopts the style of pragmatism. This research emphasizes changing an organizational practice. The study can contain elements of objectivism and subjectivism schools. It is based on facts and values, thorough knowledge, and various experiences. The research is not abstract but approaches topics with practical terms through action. The starting point is a known problem, and the study aims to solve it by offering practical solutions to be considered in future operations. (Saunders et al., 2019, pp. 150–151.) Further, the theoretical framework is developed through a deductive approach. The existing literature forms the theory, which is then tested by various data collections. (Saunders et al., 2019, pp. 153–154.)

The time horizon is cross-sectional representing a snapshot of a certain time. It is typical for cross-sectional studies to collect data via surveys or interviews to investigate a particular point of time and relations linked to it. (Saunders et al., 2019, p. 212.) The time horizon of this research is a snapshot of 2019 and early 2020. The study compares the solution support work and draws conclusions in terms of sociocultural values and performance indicators before and after the pandemic.

4.1 Research methods and strategies

The methodological approach in the research design is mixed-method research integrating qualitative and quantitative data collection and analysis in the same study. More precisely, the research is a concurrent mixed method research involving an

individual use of quantitative and qualitative methods in data collection and analysis. This way of researching interprets the results of these different methodological streams together and leads to a more comprehensive analysis of the research question. (Saunders et al., 2019, pp. 181–182.) Mixed methods contemplate culture, factors, and indicators. It is used to examine phenomena that are distinctly social but require quantifying to meet the criteria of thorough, reliable, and credible research result. (Pasian & Turner, 2015, pp. 287–288.)

Qualitative study is often also interpretive and naturalistic, as it analyses subjective and socially constructed meanings. In this study, it stands for trust, participation, relationships, and in-depth understanding. (Saunders et al., 2019, pp. 179–180.) The target is to analyze literature by using qualitative methods. The data is also collected through interviews and surveys, which will produce rather qualitative than quantitative data. Additionally, quantitative research is utilized, when studying relationships between numerical variables (Saunders et al., 2019, p. 178). Here, quantitative research is applied, when analyzing Wipak's existing data regarding travel expenses and carbon emissions. These statistics will represent the secondary data. Secondary data consists of raw data and published summaries that have already been collected by someone else (Saunders et al., 2019, p. 338).

The research strategy is a case study with elements of a constructive research. A case study is applied, when producing a profound and detailed researched information on a case (Ojasalo et al., 2014, p. 37, 52). The case may apply to a person, a group, an organization, or a change process (Saunders et al., 2019, p. 196). It allows to understand a company or any development idea thoroughly and realistically. A pure case study will not yet strive for any change or develop anything concrete. It rather produces development ideas or solution proposals. It is customary for a case study that various data collection methods are employed for a comprehensive result. (Ojasalo et al., 2014, p. 37, 52.) In this research, the case refers to Wipak as an organization and to the solution expert team as a further condition. With the elements from constructive research, this research anyhow leads to an inevitable process change, as the target is to clarify how to produce Wipak's solution support services efficiently and economically by fulfilling support requests without compromising principles of the sustainable future. The elements of constructive research are explained by Pasian and Turner

(2015, pp. 95–96). Constructive research solves practical problems in academic framework by integrating existing theories with real-world problems as described in Figure 4.



Figure 4. Constructive research dilemma (Pasian & Turner, 2015, p. 96.)

Construction represents for example processes and practices. The research process involves the following steps: select a practical problem, study an area in detail, design solution proposals, test the feasibility, compare the results with theory, and verify the results. (Pasian & Turner, 2015, pp. 95–96.) In this study, constructive research excludes the testing phase. Practical problem is solved by creating a new construction, which corresponds to for instance a product, software, instruction, model, plan, or method (Ojasalo et al., 2014, pp. 37–38). Next, the data collection methods are presented.

4.2 Data collection methods

It is typical for a case study that several data collection methods are deployed to achieve profound, diverse, and thorough results. Case study can be conducted with qualitative, quantitative, or mixed methods. Usual data collection methods are surveys, observation, and interviews. Other suitable methods are for example benchmarking and brainstorming. (Ojasalo et al., 2014, p. 55.) Surveys, observation, and interviews can also be applied to a constructive research (Ojasalo et al., 2014, p. 68). Data collection methods are planned based on the scales presented in Figure 2. Interview is used to provide more performance-oriented point of views. To balance the scales,

survey will issue perspective on balanced thinking and a standpoint that is rather on human factors. Benchmarking will validate survey results and finally, gathering quantitative secondary data will support all the findings representing more performance factors.

4.2.1 Interview

Research interview is a discussion with specific targets between two or more people witnessing the reality. Interviewer is forming a relationship with interviewee, where it is possible to inquire into different matters from various angles and to immediately confirm inexact explanations. Interviews enrich researcher's perspective via open conversations and support data collection that is relevant to research questions. It should be considered that interviews always provide subjective data shaped by personal assumptions. (Saunders et al., 2019, pp. 434–436.) Interview is a good choice of method, when the researcher plans to highlight an individual as a subject. In this setting, interviewee has a possibility to describe his or her point of views rather freely. (Ojasalo et al., 2014, p. 106.)

There are different types of research interviews available. They are segregated based on standardization requirements, modes of interviewing, number of participants and structural needs. Structured interviews, or quantitative research interviews, are used when set of questions and response recording are pre-defined. This means that each interview will be similar even regarding voice tone or how questions are read to avoid any bias. The other option is to conduct slightly more informal interview by selecting non-standardized semi-structured interview. To maintain the same structure, key list of themes and questions originating from the theory are used. Same set of themes will be systematically reviewed with every participant, which allows more accurate response comparison. However, every discussion is still a possible opening for new findings. The final option is in-depth unstructured interview. It is typical for this option that there are no pre-defined questions, themes, or structure. It is a casual discussion, which is often led by interviewee. Interviews can have different settings based on participants such as from one-to-one, one-to-many to group interviews. Usual ways to conduct an interview are face-to-face, telephone or internet related collaboration.

(Saunders et al., 2019, pp. 436–442.) It would be advisable to record interviews to return later to different topics, behavior, tones, and gestures. These hidden messages often describe more than the actual words. For later analysis, interviews will be transcribed. Transcription can be informal, but in case certain wordings have a crucial meaning for the research, it must be exact. To be precise, relevant notes regarding interviewee's emotional state and behavior must be recorded. (Ojasalo et al., 2014, pp. 107–108.)

Fresh and newly collected data is called primary data (Saunders et al., 2019, p. 338). The first part of primary data is collected by interviewing Wipak's managing directors of the 10 manufacturing plants, excluding Spain. Interviews have been selected for data collection method with managing directors to allow them personal and efficient contact. Their schedule is tight, and a direct interview guarantees an efficient response method for interviewees. Additionally, interviewing secures a response for interviewer. Interviews will also provide a wider perspective on the topic when the content is not immoderately limited. Furthermore, in this research interviews will be conducted as one-to-one interviews in Teams, as an Internet-mediated face-to-face interview. The approach is non-standardized and semi-structured interview. There will be pre-defined main themes and questions to compare results, but each discussion will be treated as unique in order not to omit innovative and contemporary angles. Each interview will have only one interviewee at a time. This will allow unbiased, trusted, and open discussion between participants. Teams is the selected tool, as it enables video for face-to-face meetings, and it has an option for recording. Using an online tool for the research instead of travelling supports Wipak's green values and sustainability targets without forgetting employee well-being by offering a zero-cost conferencing. Compared to other methods, structured interview would considerably limit open discussion and new angles. Besides, with in-depth and unstructured interview it might become impossible to compare between responses. Unstructured interview may also end up being very biased without pre-defined contents.

Managing director interviews are applied to yield objective and balanced information regarding the scales presented in Figure 2. It is expected that they provide good insight and point of views for performance indicators. As they represent production plants, they should take also human factors into consideration. It is assumed that this

personnel group will weigh performance indicators slightly over human factors. Interview themes and questions will be introduced in Chapter 7 Research Process and Appendix 4.

4.2.2 Survey

Surveys are beneficial in collecting an extensive research material, where it is possible to efficiently ask several questions from a larger audience (Ojasalo et al., 2014, p. 121). They can be self-completed, or researcher completed questionnaires. Self-completed surveys are Internet questionnaires, Short Messaging Service (SMS) questionnaires, postal and delivery and collection questionnaires. Internet questionnaires are divided into web and mobile questionnaires. Web questionnaires are usually accessed through web page via computer or mobile phone. On the other hand, mobile questionnaires are operated via Quick Response (QR) codes. SMS questionnaires are delivered via a text message. Postal method refers to mail posting, where respondents are returning them by post after completion. Delivery and collection stand for delivering by hand and physically collecting ready documents later. Researcher completed questionnaires are conducted by telephone or face-to-face. Face-to-face questionnaires are also known as structured interviews, as interviewer is leading discussion and completing documentation. (Saunders et al., 2019, p. 506.) It is critical to carefully define aims of survey that are correlating to research questions without forgetting setting up target group (Ojasalo et al., 2014, p. 122).

The second part of the primary data is collected by creating a self-completed internet survey for seven solution experts and roughly 100 key users. Key users will share their opinions via survey due to the size of the target group. Finally, the solution expert team is not a large group, but there is a risk to endanger the objectivity principle by interviewing, as the researcher is their line manager. Hence, they will respond to a survey. Surveys will be conducted before interviews. It is important to find out, how key users are evaluating the situation. In case managing directors' opinions differ dramatically from key users' opinions in interviews, it is interesting to open a discussion regarding this side after official questions. In case both parties are in the same opinion, it verifies both results. Solution experts and key users will receive

different kinds of surveys. Solution experts are evaluating their support work and how they assume that they are able to support internal customers in various situations. Key users are reviewing their side and providing point of views for instance whether remote support is enough and when especially onsite support is required. Additionally, few other companies with a similar support structure will be searched for answering the key user survey. Then, Wipak's survey results for key users' support feelings are benchmarked against similar business units. Results will be analyzed quantitatively and qualitatively. The research will concentrate on relationships and creates behavioral patterns based on factories and cultures (Saunders et al., 2019, p. 641). Survey themes will be introduced in Chapter 7 Research Process and detailed questions are found in Appendices 1, 2, and 3.

Solution expert survey will produce point of views regarding both scale ends in Figure 2. System support being the main task, the team will highly value human factors. However, it is assumed that the solution experts will consider performance indicators as well. The solution expert team must constantly evaluate the cost impact of travelling. The team usually travels in a group rather than alone to gain cost efficiency and environmentally friendly choices in car rental. Hotel room prices will be compared, and the cheapest but time-efficient flights are selected. This means that direct flights are chosen over stop-overs due to weighing the impact of lost working or relaxing time to pure costs. Due to the pandemic situation, the team assesses safety even more than earlier.

Key user questionnaire has a strong impact on human factors in Figure 2. It is assumed that they will form an opinion on solely key user and end user roles. Key users will have a need for system support, and they appreciate high-quality service, which equals often onsite support even though online collaboration tools are efficient. It will be interesting to find out, whether social culture or manufacturing site culture is a key factor in responses. To validate this group's opinions, Wipak's results will be benchmarked with results of few similarly structured companies.

4.2.3 Benchmarking

Benchmarking discovers, studies, and adapts ways of working from other organizations to improve own company's practices. It finds references for comparison and suits for analyzing operating processes, products, and services. (Tuominen, 2016, pp. 6–10.) Benchmarking is simply adopting what works by learning and sharing. This has several advantages such as becoming competitive and adapting best practices. It furnishes a measurement system. When a benchmarking objective is identified, it is already a step forward to measure a process and to fix a real-life target. Organizations can employ benchmarking in several ways to improve operations, for instance in meeting customer requirements, adapting best practices within an industry, developing ways to measure or redesign processes, seeking leverage for internal cultural change, building company's strategy, and innovating contemporary problem-solving methods. Six different types of benchmarking are available: internal benchmarking, competitive benchmarking, collaborative benchmarking, shadow benchmarking, functional benchmarking, and world-class benchmarking. Internal benchmarking is to understand company's own processes. Competitive benchmarking is a comparison against competitors. Collaborative benchmarking is used to compare statistics with other organizations. Shadow benchmarking represents shadowing strong or dominant competitors especially in market penetration. Shadowing is not agreed with competitor. Functional benchmarking compares processes with slightly similar companies within the same industry. World-class benchmarking is to contrast processes with world-class companies within different industries. (Patterson, 1996, pp. 3–37.)

In this research, benchmarking is mainly used in terms of comparing and validating results via internal and collaborative benchmarking. In collaborative benchmarking, key user survey results will be compared against other companies having a similar support organization. Benchmarking to other companies will also test Wipak's key survey results to prove reliability and validity with a possibility to adopt best practices. In internal benchmarking, the research compares Wipak's manufacturing sites and different personnel groups based on interviews and surveys. Besides the comparison, the reasoning is to seek best practices to improve the support process.

4.2.4 Secondary data

Secondary data will be denoted completely for performance indicators in Figure 2, the right end of the scale. Secondary data will be collected from Wipak's travel expense management system and the carbon footprint calculator. The data stands more specifically for travel expenses, number of travelling days, number of business trips, destination and departure countries, and carbon dioxide emissions. Travelling costs can be split for instance into overall costs, costs per travelling day, airfare, car rental, accommodation expenses, and daily allowances. Carbon dioxide emission details are measured regarding travelling. These details are compared between years 2019–2020.

Travelling costs will be analyzed first against Wihuri Group's travel policy. Travel policy defines all the justified business trip expenses. Yearly travelling costs of Wipak's business support will be tracked from a corresponding cost center. Yearly costs will be divided per business trip to find the average costs per business trip. The solution expert team locations can be compared against each other. Additionally, travelling costs based on destination will be added as a further variable. Together with expenses, business trip related emissions will be evaluated. Exploring expenses and emissions will provide a destination-based score, which can be used to evaluate feasibility and further influence of a possible business trip. Data evaluation could also be used in defining a yearly team specific business trip budget enhanced by a preferred destination list. One aspiring outcome would be that the solution expert team had a yearly budget for costs and emissions, which is available with agreed boundaries revealed in this research.

5 HUMAN FACTORS IN SUPPORT WORK

Solution support work is strongly affected by human factors. Support teams, key users and end users are all unique human beings with diverse cultural backgrounds, various personalities and social needs accompanied with distinct learning experiences. People think, perform, and perceive subjectively, which however correlates equally to cultural values, norms, and beliefs than to personality. Culture is generally considered to be the prevailing environment with common habits and values in one specific country. Culture can also stand for an organization culture, where company values represent communal norms and beliefs. This chapter concentrates on the human factor end of the support work highlighted in Figure 5. Further, the chapter will present cultural differences and layers, cultural dimensions, organization culture, interacting and learning in modern world, Wipak's values trust and together, and social values and communality.

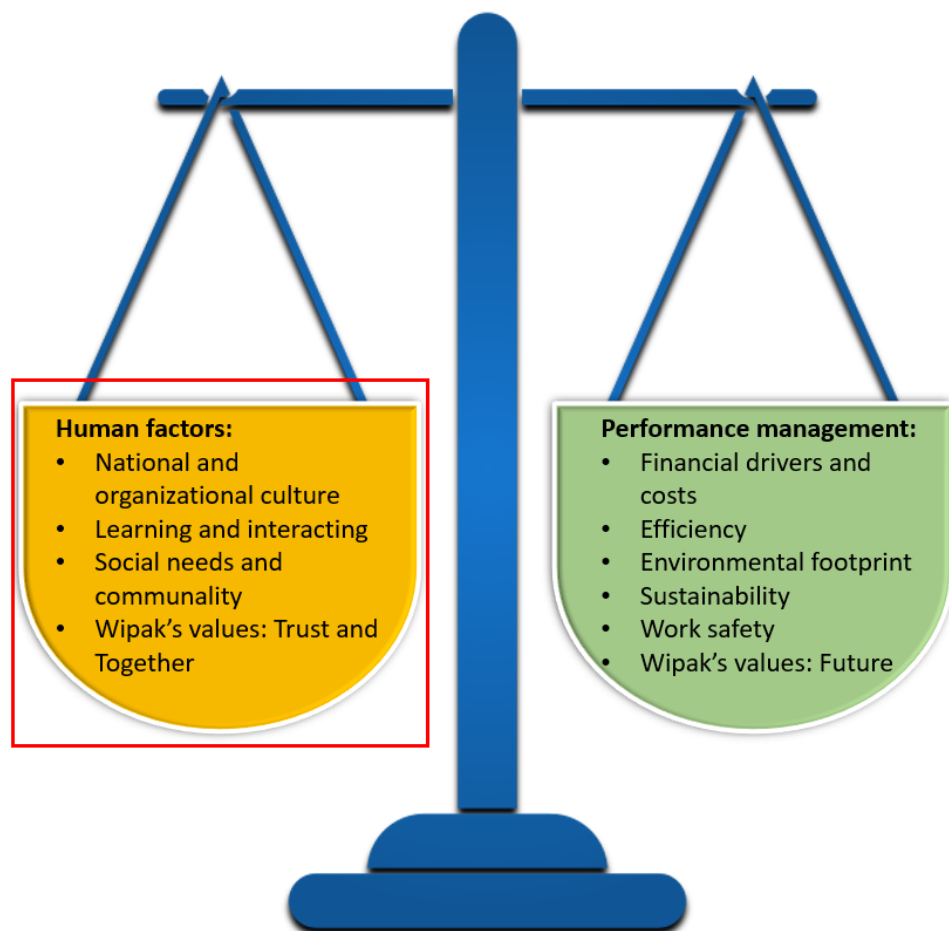


Figure 5. Human factors in the solution support service

Each human being is a composition of feeling, thinking, and behaving originating from a lifetime learning curve and one's social environment. People can react in unexpected ways, but the basis is always in the previously learnt patterns. The usual social environments are family, school, friendships, workplace, and community. This composition, or with Hofstede's (2010) words "mental programming", commonly stands for culture. The narrow scope of culture is civilization or refinement of the mind. Social anthropology defines culture as models of thinking, feeling, and behaving without forgetting basic needs such as eating, ways of revealing feelings, and need for physical distance. As culture touches social environment, it is a collective experience, which is learnt together. Human nature and personality strongly correlate with culture. Human nature signifies general standpoint of human mind being common for all. It consists of basic psychological functions and basic human needs such as feeling of anger and joy and a need for being a part of a community. Furthermore, culture determines, how people are acting based on these feelings and needs. On top of human nature and culture, human's personality provides the final level of behavior, which is based on inherited features and learnt cultural aspects as well as on individual experiences. (Hofstede et al., 2010, pp. 16–17.) Next, the cultural theory is expanded by explaining further details on cultural differences and layers.

5.1 Cultural differences and layers

Cultural differences are evidence of symbols, heroes, rituals, and values. Values are the heart of culture. They are feelings with negative and positive elements with a tendency to favor one over another. Values can place for instance moral against immoral, abnormal against normal or evil against good. Humans obtain values mostly from family at early stages of life by unconscious methods. Later around school age, learning becomes conscious and puts focus into practices, which are symbols, heroes, and rituals. They are visible for outside bystanders, but the concrete cultural meaning remains invisible and is only revealed to members of that society. Rituals are socially significant activities inside a culture. Examples are greeting others, business meetings, political conferences, strengthening belonging to a group, daily communication and especially discussions over beliefs. Heroes are characters that are important for a

culture. They are models of behavior, and it is irrelevant, whether they are dead or alive, true, or fictional. Symbols stand for gestures, words, and objects such as language, dress, and flags. Their actual meaning is only understood within a certain society. (Hofstede et al., 2010, pp. 18–20.) Practices concern life-time learning. It involves new features in constantly developing societies, including fast-moving technical developments or more intangible topics such as new heroes. Cultural change for values, the heart of culture, is very slow. (Hofstede et al., 2010, p. 28.) Values are often affected by the fact, whether objects are desired or desirable. Moreover, how persons evaluate the world should be compared to what they desire. (Hofstede et al., 2010, pp. 35–36.)

Culture can be distinguished into the following layers: national, regional, gender, generation, social class, and organizational layers. National layer represents home country or previous migration countries. Regional level contains ethnic, religious and language related connections. Gender represents being male or female. Generation provides leveling between age groups of grandparents, parents, and children. Social class is derived from educational or professional paths. Organizational layer concerns employed persons, who closely belong to a work society. (Hofstede et al., 2010, p. 27.) Culture can also be distinguished to dimensions, which are an illustrative tool when comparing cultures.

5.2 Cultural dimensions

Although Hofstede's foundation is based on survey data that was collected in the late 1960's and early 1970's, it is still very dominant theory in international strategic management. The accurateness of the dimensions is constantly criticized, as the world is changing, and cultures are evolving. Beugelsdijk, Maseland and van Hoorn (2015) researched, whether the dimensions are still valid. Based on their findings, peoples' values do change based on the modernization theory alongside societies become wealthier. However, the change in scores have not influenced on the relative positions of the countries. The differences between countries remain relatively stable. It is possible that there are country specific changes that this study did not reveal, but the overall finding is that the dimensions should not be treated as outdated. (Beugelsdijk

et al., 2015.) Hofstede confirms the same in his research stating that it should be considered with cultural dimensions that it measures differences between cultures, not cultures entirely. Cultures keep changing and that can be argued against cultural dimensions. However, when they transform globally in parallel, the results will hold out. (Hofstede et al., 2010, p. 58.) As the relative positions of the countries remain unaltered, this research is deriving the cultural theory from Hofstede's dimensions.

Different cultures can be compared by utilizing cultural dimensions. The following dimensions are recognized: power distance, collectivism versus individualism, femininity versus masculinity, uncertainty avoidance, long-term versus short-term orientation and indulgence versus restraint. First four dimensions have been originated from Geert Hofstede's study regarding IBM's survey data in more than 50 countries and local subsidiaries in the multinational corporation. They had been already recognized to some extent in social sciences. The fifth dimension has been established in Chinese Value Survey (CVS). The last, the sixth dimension is the newest one and was founded by Michael Minkov. (Hofstede et al., 2010, p. 36, 43, 236.) This thesis utilizes the first four dimensions in analyzing Wipak Group's international working environment. These four dimensions have been researched more deeply and additionally they have a foundation available in social sciences. Long-term versus short-term orientation stands for society's search for virtue (Hofstede et al., 2010, p. 201). Indulgence versus restraint measures correlation between pleasure and restrictions of enjoying life (Hofstede et al., 2010, p. 237). These latest dimensions are philosophical in their nature and hence, they strongly associate with family and leisure time. Further, cultural dimensions overall might seem slightly stereotypic. Exceptions and several interpretations occur. However, cultural dimensions are only one part of the study. Dimensions are often presented with extreme examples to illustrate opposite ends and to finally find standpoints for Wipak countries.

Power distance reflects inequality and how it is handled in societies. It is also understood as emotional distance. Power distance is describing, how less influential persons in groups or organizations in one country are tolerating power inequality. Additionally, it notes down, how these persons desire power to be allocated. Here, groups stand for family and elements of society such as school. Organizations are defined traditionally as workplaces. Further, social class, level of education and

occupation often indicate inequality. Small power distance countries tend to decrease inequalities between people. Social relationships are important. Parents and children, and students and teachers are equals. On the opposite side in large power distance countries, inequalities between people are normal. Status and emotional distance are important. Children should obey parents such as students respect teachers. (Hofstede et al., 2010, pp. 54–66.)

Collectivism versus individualism, we versus I, indicates the power of the group and the desirable strength of relationships within the groups. One example in the dimension is, how family is experienced, how loyal persons are for the group. Nuclear family with less members belongs to individualistic culture, whereas extended family with more members stands for collectivistic culture. Collectivist cultures place group interest over individual interest through strong and united life-time groups. In individualist cultures, individual interest remains the most important with loose bonds with others. One related variable for this is called exclusionism versus universalism. In exclusionism, people are being considered based on their group engagement by offering favors and benefits for group members while excluding outsiders. True solidarity prevails inside the group, while there might be even malicious acts towards outsiders. Universalists treat each other as individuals without group membership considerations. Collectivistic cultures are shame cultures, where the whole group feels ashamed in case a member breaks common rules or norms. Guilt then on the other hand belongs to individualism, where one person feels guilty regarding any wrongful actions due to individual conscience. One other descriptive word in collectivism is “face”. Losing face is an act of humiliation, where a person is incapable of meeting the social requirements in cultural society. Face also indicates the status that a person has in front of his or her superior. An individualistic correspondence for face is self-respect. Collectivistic personalities are often introverts and showing sadness is encouraged. Individualistic ones are extroverts with apparently happier and joyful characters. (Hofstede et al., 2010, pp. 80–102.)

Masculinity versus femininity equals assertiveness versus modesty as well as ego versus relationships. It is common for each society to distinguish certain tasks and roles to be more for males or females. Having a feminine or a masculine role does not correlate absolutely to biological matter or reproduction, rather it is a cultural norm

defined by a society. It is presumed that males are achievement-oriented, self-assertive, resilient, and competitive. Females then, are more caring, feeling and relationship-oriented appreciating quality of life. When emotional gender roles are that distinctive, a society is defined as masculine. In case there is a clear overlap on emotional gender roles, males behaving similarly like females, a society is feminine. In masculine cultures, ego is often boosted, whereas in feminine culture own ego is undermined. Masculine cultures do not tolerate failing and aggression is accepted. Feminine cultures then do not find failing as a massive incident and non-aggressive behavior is natural through socializing. (Hofstede et al., 2010, pp. 117–143.)

Uncertainty avoidance denotes level of anxiety and how easily persons are intimidated by unknown or perplexing occasions. It also concentrates on a need for rules, regardless were they documented or hidden rules. Anxious cultures are full of emotions. It is acceptable to talk with hands and to use louder voice. Low uncertainty avoidance cultures are not accustomed with expressions. It leads to higher stress levels, as all emotions are left inside without freely releasing feelings. People in high uncertainty avoidance cultures are often seen as emotional, busy, self-conscious, and very impulsive. Uncertainty is a threat and abnormalities are dangerous. On the contrary, people in low uncertainty avoidance societies are judged as boring, quiet, modest, and tender. Uncertainty is normal and a new day is full of possibilities. (Hofstede et al., 2010, pp. 163–175.) Additionally, organizations have their own culture, which will be handled next.

5.3 Organizational culture

Organizational culture compiles common beliefs and values of its employees from current work generation to later generations (Hunger & Wheelen, 2014, p. 75). Managers and any other members of organization are part of national societies. To interpret their actions, it is crucial to comprehend their society. It is easier to understand, when investigating for example family structure, common personalities, school system, political system, values, and beliefs in their country. (Hofstede et al., 2010, p. 32.) Organizational culture introduces a holistic view in an organization. It is derived from its history without forgetting cultural symbols and rituals. Organizational

culture is initiated and cherished by people and groups working together. Organization's business network has a strong impact on shaping its culture as all involved are somehow interacting around it. These stakeholders can be for instance customers and vendors as well as any authorities. It is assumed that this kind of culture is challenging to change. Organizational culture is more shallow than national culture, as national culture is acquired during the first years of a person's life in family and at school, but organizational culture mainly consists of organization's practices. (Hofstede et al., 2010, p. 289, 291.)

Organizational culture can be divided into intensity and integration. Employees tolerate norms, values, and other cultural aspects to a certain extent. This is called cultural intensity or cultural depth. If a culture is intensive, it is highly likely that employees will start behaving in similar fashion. Cultural integration is measuring the breadth of common culture that is dispensed in different business units. It is possible that business units maintain strong subcultures, which weakens overall organizational culture. In turn, each business unit and its employees may pursue highly integrated culture with shared norms and values. Organizational culture is influencing every employee and their work behavior. A powerful culture is a clear competitive advantage, as rival firms cannot duplicate it. It enforces good control and coordination over a company and motivates its employees. (Hunger & Wheelen, 2014, p. 76.)

Geert Hofstede has studied business goal priorities in different countries. One country in the study was Germany. German companies value mostly responsibility towards society and employees. The ultimate target is to create something new while recognizing ethical norms in high priority. Long-term profits are preferred over this year's profits. According to the study, power and national self-esteem are less important. Business growth is not usually one of the first targets. (Hofstede et al., 2010, p. 273.) Today, Wipak Group's chief executive officer is a Finn, and the headquarters is located in Finland. Just a few years ago, the headquarters was still in Germany, and the CEO was a German. Considering this and Walsrode being one of the biggest manufacturing sites, Wipak's corporate culture is partly German. Naturally, the significant part is Finnish as it is owned by a Finnish family. Nationality and personality of founder(s) are influencing on fundamental values of a multinational corporation without forgetting persons in other important management positions

(Hofstede et al., 2010, p. 334). Organizational culture also reflects to a mission of a company, which is the key to its strategy and existence (Hunger & Wheelen, 2014, p. 76).

Power distance and uncertainty avoidance correlate to, how organizations are experienced. This is presented in Figure 6. Key questions in running organizations are how power is shared, how it is tolerated, and which rules and ways of working are valid. Strong uncertainty avoidance and small power distance build well-oiled machine organizations. Weak uncertainty avoidance and small power distance then creates an organization called village market. Large power distance with strong uncertainty avoidance stands for a pyramid model, whereas large power distance and weak uncertainty avoidance transforms into a family model. Finland and Germany are positioned on the same level based on power distance. Uncertainty avoidance has slightly weaker score in Finland, which places Finland on the village market quadrant and Germany in the well-oiled machine. The difference is exceedingly small. (Hofstede et al., 2010, pp. 252–255.)

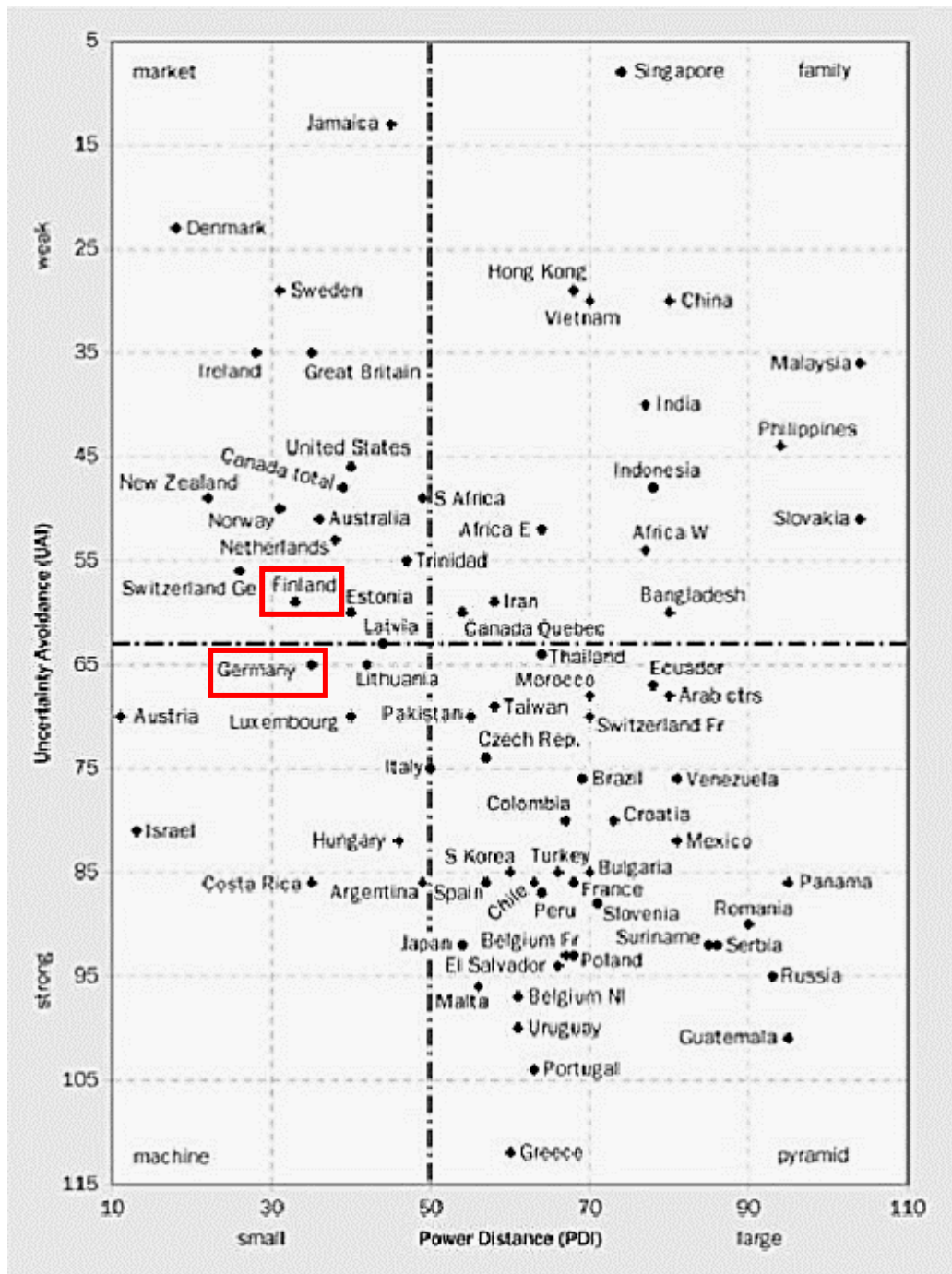


Figure 6. Power distance versus uncertainty avoidance (Hofstede et al., 2010, p. 254.)

If considering the combination of a well-oiled machine and village market, Wipak's organization culture should be slightly rules and guidelines oriented with a shared power and participative discussions. Culture is a fundamental element in building personality and behavior. However, behavior can be affected by unpredicted stimulus while collaborating online leading to wrong interpretations. Next, the research

mentions the theory related to online collaboration with comparison to face-to-face interaction.

5.4 Learning and interacting in modern world

Today's technology offers a lot of opportunities in learning hence it can be divided into face-to-face and e-learning options. Individual and motivated learners benefit most out of digital learning. However, majority still prefers face-to-face learning over e-learning. Face-to-face learning is usually appreciated due to open dialogue and personalized contact. Discussions enhance learning and personal contact supports relationships and need for belonging. It is easier to be in contact with others and share experiences. Often, face-to-face training is paid for by organization to support employee's further learning. Even though face-to-face trainings are advantageous, it is not always possible and efficient to organize a venue and spend time in travelling. Digital learning may cause feeling isolated or bored, as participants are alone in front of screens. There can also be less interaction, which makes sharing experiences or asking questions difficult. Evaluating progress after training is challenging. It is anyway more flexible to organize e-learning. Sessions can be joined whenever and wherever, and it is possible to review content after courses. Shorter format enables agility. (CrossKnowledge, n.d.)

E-learning can be divided into asynchronous and synchronous learning. Asynchronous learning takes place at any time. It does not matter, whether fellow students or teacher are logged in. Usually, there are deadlines and targets for studies, but students will plan their schedule individually. Synchronous learning occurs in real-time based on a pre-agreed schedule. It is common to have an online platform for webinars, which is then connecting students and teacher for collaboration. Asynchronous learning packages should have a wide selection of various exercises. When texts, videos and simulations are blended, students are better onboard. In case learning content is not interesting, individual learners are easily disengaged. Asynchronous model does not have face-to-face interaction, which then requires well-planned support system for any emerging challenges. Isolation remains a high risk, but it can be avoided by active and collaborative online community. There must be an online forum set up, where students

are able to share opinions, questions, and benefit from peer experiences. It is possible to work in a team without face-to-face interaction if active collaboration is empowered. Learning modules should be smaller to allow agile studying. Synchronous e-learning will succeed if each participant is able to create an ideal studying environment. Students must be able to concentrate on e-class room such as in a physical classroom, which means removing all distractions. Schedule and expectations must be clear for preparation. Moreover, synchronous learning can be flexible when online sessions are recorded. To find out the right approach, surveys are a good tool to evaluate needs. If it is impossible to decide, which one is better, blended learning is also a powerful method. (Pappas, 2015a.)

Synchronous e-learning has redesigned business organizations' learning styles completely. When comparing to asynchronous training, synchronous training is not isolating, and it enables collaboration. Synchronous e-learning is a training revolution that promotes constantly required efficiency. It provides cost efficiency, as there is no need to travel and to pay for the related costs for instance for accommodation. Synchronous learning offers instant feedback and social relationships due to real-time interaction. However, this type of learning is completely technology-based. There are always employees, who are not skilled enough to attend efficiently in online trainings. It causes great frustration for online learners when computer skills and technical knowledge are poor. Besides, inferior social skills are hindering success. To achieve outstanding learning experience online, participants must be active. Some employees are not open and social, and thus it is not natural for them to be forthcoming. (Pappas, 2015b.)

Video calling interfaces with synchronous features are connecting people, but they also cause Zoom fatigue. Zoom fatigue is a slang term, which emphasizes exhaustion in video interactions. Communication is not only related to discussions, but it is also linked to facial expressions and any gestures or movements of a human body. These expressions and gestures are a basis for emotional connection. However, video calls are limiting possibilities to interpret others. Usually, only a face or a body from shoulders up to top are visible. It disables viewing body language. If adding up a poor video quality, it is impossible to read any gestures. Similarly, when a screen has multiple persons, the described exhaustion increases. It is impossible for human brains

to concentrate on multiple faces simultaneously. This challenge forces brains to multi-task. Brains become overloaded with multiple focus points, while non-verbal signals are missing. Despite the brain overload, new ways of working offer great tools to stay connected and maintain relationships from a distance. One good tip to avoid this overload is sometimes to turn off camera and to only concentrate on voices and tones. (Sklar, 2020.)

Face-to-face meetings are important, as they allow participants to share information with empathy. Meeting onsite decreases uncertainty due to an innate ability to read the other person's facial interactions and mental state. Face-to-face interaction is a special signaling technique, where mirror neurons are mirroring other person's intentions during a social contact. Mirror neurons are related to empathy and to capability of understanding another person. With face-to-face connection, people can better understand, how others are aiming to act and if they are truthful in terms of their actions. It is not only significant to prefer face-to-face meetings for productivity but to receive information on counterpart. Furthermore, social contacts reveal hidden or shielded intentions and lead to clarification of the whole context by reading between the lines. (Holmes, 2013.) In online groups, group participants have the possibility to be committed or involved in a similar manner. It is however probable that strong commitment is not a default as observer role is more acceptable online. Behind screen, it is natural and comfortable to mentally withdraw for example due to lack of time or overall emotional pressure. (Weinberg, 2014, pp. 169–170.) Regardless of a meeting or training venue, trust and working together are essential foundations in social interaction. Trust and together as Wipak's company values are discussed next.

5.5 Trust and together

Wipak's value for trust is described as follows: "We trust each other and take ownership of our work. We keep our promises and rely on our Code of Conduct and other guidelines. We do the right thing." For together it is stated: "We are open and transparent in our communication. We respect and help each other. We encourage, we challenge each other, and we laugh together. We prioritize the well-being and safety of each individual." (Wipak, n.d., section "About us".) When considering culture, in

collectivistic cultures, personal relationship should be established before any assignment. In individualistic cultures, it is possible to put work tasks before relationships. (Hofstede et al., 2010, p. 107.) Well-being and safety are important concepts at Wipak, safety being one of the main key performance indicators. Safety is handled more detailed in Chapter 6 Performance Management and in its Subchapter 6.5 Safety. Being together also contains a need for belonging, which is presented in the next Subchapter 5.6 Social needs and communality.

Trust is a risk management tool in relationships with other people. Trust allows people to work together, and distrust maintains continuous self-protection. Trusting makes people vulnerable, as relationships are active choices that always contain risks. Situations define levels of trust. For instance, a student is a great choice for babysitting, but this same person is not a first selection for a trustee in a complex work matter. Trust can be divided into positive concepts such as capable or highly confident, or into negative values such as distrust, suspicion, and betrayal. Some persons are willing to maintain precaution and they build relationships with bounded trust. Bounded trust is literally trust with restrictions. Furthermore, interpersonal trust relies on expectancy theory. It is an interchange, where trust is based on assumptions and beliefs regarding other person's intentions. Trust consists of ability, integrity, and loyalty. Ability stands for knowledge and technical skills. Interpersonal relationships reveal competencies, and it is often common knowledge, who is capable of handling certain assignments. Integrity represents values such as beliefs, personality and fairness, and expectations such as dependability and trustworthiness between people. Finally, loyalty denotes truth-telling, where confidentiality and willingness to support in any possible case are significant. (Evans, 2015, pp. 1–9.) Additionally, Wipak's value of trust includes the concept of doing the right thing. This correlates directly to effectiveness, which is presented in Chapter 6 Performance Management and in its Subchapter 6.2 Efficiency.

Together as a value signifies teamwork. Working together in a multinational company in a respectful manner is possible when cultural background of each member is understood. Without cultural understanding, it is not possible to encourage and challenge each other, or even laugh. Understanding cultural differences is significant for international leadership, as behavioral challenges can even trigger insufficient organizational performance and cause troubles in relationships (Bhawuk et al., 2008,

p. 7). Complete remote work can undermine the concept of together, as it often decreases number of meetings, possibility to have coffee next to colleague's desk or having lunch together. Extensive remote work wave caused by Covid-19 has also hindered team days and companies' summer parties. It has been noticed that remote work is not encouraging supporting and helping colleagues. It is rather very individual work, which concentrates on achieving items on to do -lists. This way of working appears first efficient as all the necessary tasks will be accomplished, but on the other hand, it favors silo thinking and can prevent true innovation and spontaneous actions. One spontaneous action is helping and supporting a colleague. When working physically together, people are better able to pay attention to their surroundings and they become naturally social. Online collaboration tools are supporting and enabling remote work thus they cannot replace communality. Communality can only be achieved at the office together. (Luoma-aho, 2021.)

5.6 Social needs and communality

Culture can be described as a mental programming of a human being. Further, each human is an individual personality with different needs. Culture shapes people's personality and behavior, but there are also more primitive and innate motivational aspects behind. These elements are recognized in leadership theories thus they are significant in the system support as well. This chapter finalizes the theory on human factors by adding the human basic needs and the need for belonging with communality considerations on top of cultural impact, modern interaction, and Wipak's softer values trust and together.

Maslow's hierarchical pyramid of needs in Figure 7 is a motivational theory in psychology. Bottom-level needs must be satisfied before fulfilling the next desires. The pyramid is divided into basic needs, psychological needs, and self-fulfillment needs. Furthermore, basic, and psychological needs are classified as deficiency needs and the top level is stated as growth or being needs. (McLeod, 2020.)

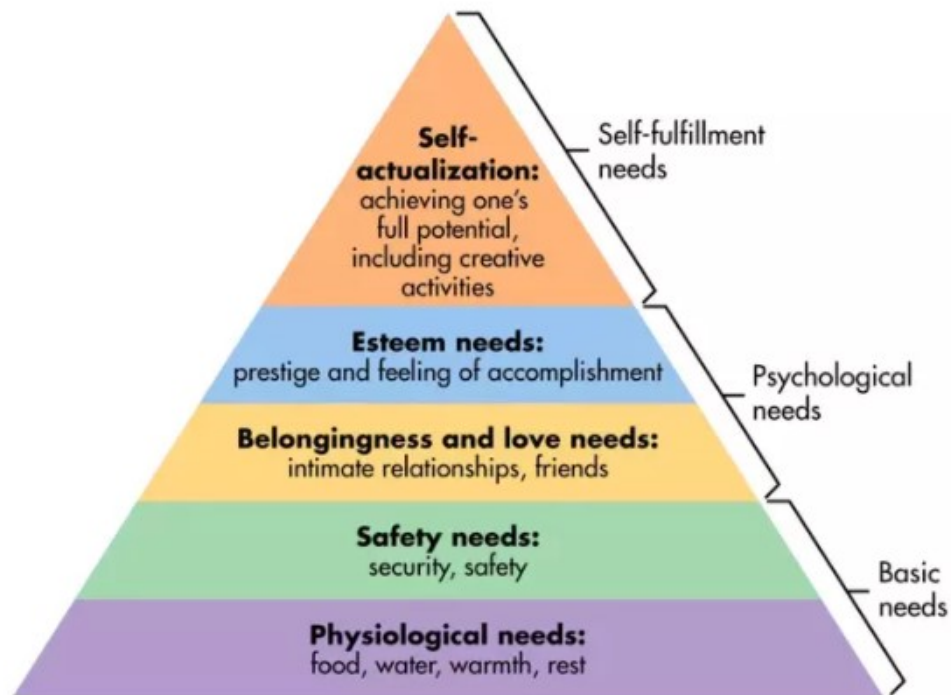


Figure 7. Maslow's pyramid hierarchy of needs (McLeod, 2020.)

Human basic needs are physiological, safety, love and belonging, esteem and self-actualization needs. Basic needs can be pictured as a standing pyramid, where the bottom needs are the most significant ones to be fulfilled. For example, if a person is missing safety, love, and esteem, the most that matters is finding food. In case all the lower-level needs are fulfilled, a person is able to target self-actualization. Physiological needs embody homeostasis for maintaining normal state of blood stream, finding food to fulfill hunger, thirst, sexuality, and sleepiness. Human's safety seeking mechanism searches for safety in terms of health, trusted and protective family, familiar routines, predictability, employment, and stable finance situation. If physiological and safety needs are met, next love and belonging needs will appear. There is a strong need for a sweetheart, loved ones, friends or children. People desire relationships and feeling of belonging and affection. Esteem needs signify a desire for self-respect, self-esteem, and self-confidence. Furthermore, it is an aspiration for achievement, worth, strength, and being sufficient in front of others. Esteem is a respect of others but also respecting others. Self-actualized people are satisfied in the previous needs, and they desire for self-fulfillment. It stands for a completely achieved potential and creativity. (Maslow, 2020.) This motivational element is only valid in individualistic societies. In collectivistic societies, the motivational factor is group

interest. (Hofstede et al., 2010, p. 112.) Motivation is straightforwardly derived from culture and its mental programming. Culture is not only an explanation how people are acting. It is rather deeper analysis on, why people are behaving in a certain manner. (Hofstede et al., 2010, p. 275.) However, local culture related desires are conscious and specific. Motivation theory is concentrating more on unconscious and basic goals. One motivation target can consist of several basic needs, which are revealed and fulfilled simultaneously. (Maslow, 2020.)

Covid-19 pandemic forced people to avoid social connections, which has directly decreased the quality of life. Social belonging is crucial for human health and well-being. The problem of loneliness existed already before the pandemic, but social distancing has aggravated this global issue. Social distancing causes anxiety, which is understandable based on human needs of belonging. Being constantly alone alerts human brains and body. This kind of anxiety is a reason for increased blood pressure, stress hormones, and any inflammatory reaction. When a body is in continuous alert state, risk of chronic illnesses increases. In addition to this, mental health is endangered, which can lead for instance to drug abuse, increased alcohol consumption, sleeping disorders or unhealthy diet. One form of social distancing is remote working. Digital tools have enabled connections with colleagues and friends. However, it is still unclear, whether human need for belonging and social connection can be fulfilled via digital environment. There is proof of loneliness paradox, which stands for being connected online, but still feeling alone due to increased loneliness. Recovering from the pandemic is mainly focusing on the global economic recession. However, social isolation can also have an impact on global economics because loneliness can be linked to employee absent rate, low quality of work and decreased productivity. Well-being should be considered together with costs. (Holt-Lunstad, 2020.)

5.7 Summary of human factors in support work

Human behavior originates from national culture. Each person is an individual, who learns certain values, norms and beliefs from family and school. These moral standards are enriched later by organizational culture. Everyone has also basic needs, which must be fulfilled to self-actualize. Humans have a strong need for belonging, which is now

challenged due to the pandemic. Organizations have used to prefer face-to-face meetings and trainings, as it is natural to see each other and interpret facial expressions. Social situations are filled with empathy and feeling of belonging. When this is not possible anymore, organizations must choose between asynchronous and synchronous interaction in collaboration platforms. Online calls with web cameras on provide new ways of interaction and being together, but is it enough to succeed? It is inevitable that travelling is decreasing, as organizations have learnt to utilize collaboration tools efficiently. However, travelling to meet colleagues is a social event with a privilege to read hidden intentions and to concentrate completely on this one task that triggered the business trip. Online meetings are efficient, as there is no need to travel and several persons from several countries can be involved, but it can also be stressful due to multi-tasking attempts. Constant online interactions can cause loneliness, alienation from co-workers, and overall anxiety. This will become a global health issue, which employers should already be aware of. Different cultures prefer different ways of working and interaction. It is possible that video calls or asynchronous support is suitable for some groups, but others are requiring more human interaction. Finally, well-being and human needs should be considered together with costs.

6 PERFORMANCE MANAGEMENT

Corporate strategy is constructed based on environmental scanning. Environmental scanning stands for scanning and assessing external and internal environments of a company. It is assumed that well-done environmental scanning leads to long-term success and profits. Variables in this analyzing process are natural environment, societal environment, task environment and internal environment. Natural environment presents green values such as natural resources, flora, fauna, and climate. Societal environment denotes economic, technological, political, legal, and sociocultural forces. Task environment consists of groups that are in direct interchange with a company. These groups can be suppliers, customers, competitors, and employees to name a few. Internal environment represents corporate culture, structure, and resources. (Hunger & Wheelen, 2014, pp. 45–46.)

When a company plans a strategy, it consists of different objectives such as profitability or cost reduction initiatives. These strategy relevant objectives are used to measure performance of a company. Performance can be defined as a final result of pre-defined activity. It can be measured with input, output, and behavioral controls. Input controls bring into focus intangible features such as motivational issues, values, and knowledge. Output controls are tangible, actual performance results, which are behavioral consequences on target setting. Behavior controls determine how objectives can be achieved through operating procedures, policies, or management orders. Emphasizing output controls is usual for conglomerates, as business units are fairly independent. (Hunger & Wheelen, 2014, pp. 155–156.) Key performance indicators are often set as a measuring tool regarding performance level that employees should achieve. KPIs are supporting employees to view the complete process rather than only concentrating on one important item in the expense of others. (Hussey & Ong, 2012, p. 19.)

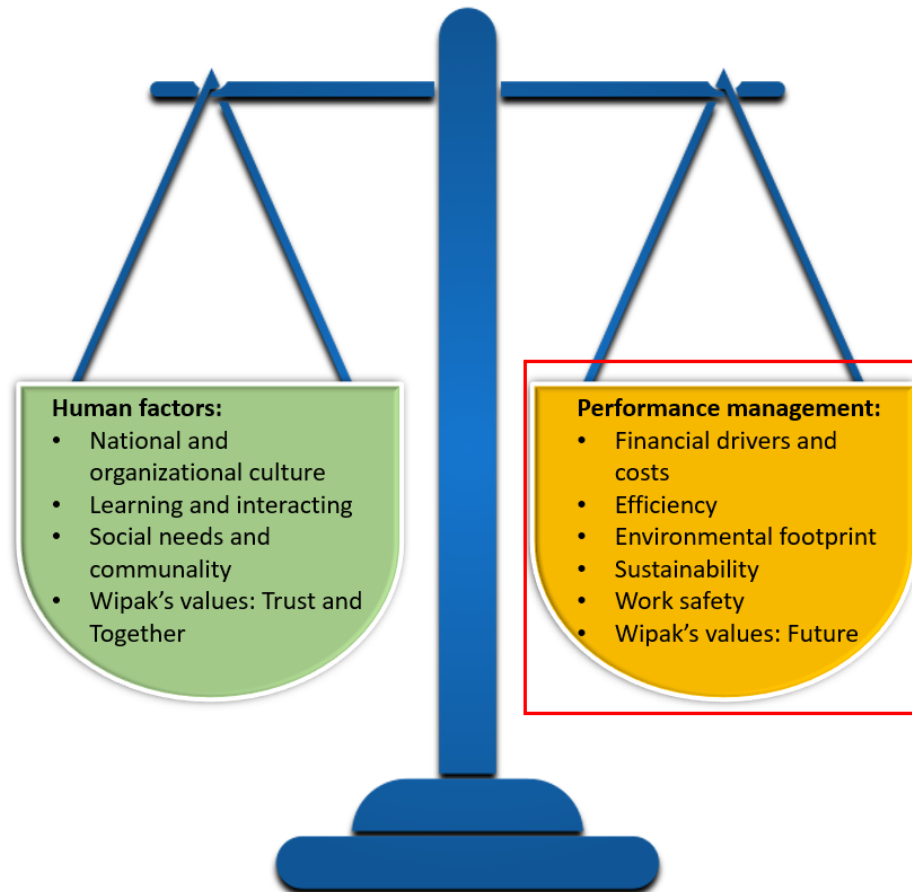


Figure 8. Performance management in solution support service

This chapter views closer the performance indicators on the right side of the solution support service scale in Figure 8. Environmental scanning variables for societal environment and natural environment relate to financial drivers, costs, efficiency, environment, sustainability, and safety. One of Wipak values, future, emphasizes natural environment as well. Chapter 5 for Human Factors in Support Work presented more sociocultural and internal environment related aspects in environmental scanning.

6.1 Financial drivers and costs

Finance department must secure correct ways of working regarding capital flows and continuously oversee daily transactions to support organizational strategy, objectives, and policies (Hunger & Wheelen, 2014, p. 78). Managers then are required to plan and control costs and base their decisions on this information. Most of management accounting is actually cost accounting, which analyses and collects financial and

quantitative data. Today, cost accounting is switching from historical short-term cost analysis to more towards future oriented science. As the period has become longer and future-oriented, the analyzing question is often “why” instead of “what”. Costing supports company’s strategy implementation. Strategic cost analysis scans different company activities and determines reasoning for costs. It also assesses strategies financially to achieve competitive advantage. Examples on strategic cost analysis are planning production volumes, what should be outsourced and overall cost reductions. Besides management, stakeholders require transparent cost information (Hussey & Ong, 2012, pp. 3–4, 8.)

Production output, whether it is a tangible product or an intangible service, is also a cost unit. Cost unit represents allocation for costs. Cost data is assigned to different centers such as cost center or profit center for reporting purposes. Cost centers contain costs, but not profit or capital. Profit centers include costs and profits but not revenues. It is also possible to use revenue centers for revenues and investment centers for investment follow-up. When managing a cost center, performance can be enhanced by preserving quality but decreasing costs or building on quality but preserving the same cost level. It is also possible to decrease costs and enhance quality in parallel. It is common in running cost centers to have performance challenges. Senior management tend to judge that costs are overly high. Costs can always be reduced, but it may have an impact on service level. Invoicing services from other internal departments is a possible solution for cost management. (Hussey & Ong, 2012, p.10–11, 18)

Costing is not only numeric information. It is activities carried out by people, who attempt to utilize resources that are assigned to them and which they require to achieve strategic objectives. To be cost conscious with limited resources in competitive environment, managers need to pay attention on their cost centers. It should always be considered, what the cost is and what is specifically costed. All these decisions must be linked into organization’s strategy with continuous performance improvement ideology. Cost analysis supports managers in activity planning, monitoring actualization of plans and finding another way of working. Strategic costing assists in recognizing costs that are required and helps to strive for better performance. (Hussey & Ong, 2012, pp. 19, 21–22.)

Direct costs can be assigned directly to a product or a department. Fixed costs then remain the same regardless of variances in activity. Indirect costs can be divided into production, administration, research and development, and selling overheads. Overhead costs are shared within organization's cost centers in cost accounting. Some overhead costs can be directly assigned to one cost center that was the origin of those costs. The other method is to share overheads over cost centers that benefited from them. (Hussey & Ong, 2012, pp. 25, 27, 29.) Travelling costs of the solution experts are overhead costs and they belong to Wipak Group's cost center under general and administration expenses (G&A). G&A costs are charged from the Group via group management fees, which are allocated to each manufacturing site based on 50% sales and 50% tied capital quota. IT service costs for development work are indirect overhead costs and they are being charged equally from group's cost centers by contributing to a fixed machine hour rate. Manufacturing site specific project costs are allocated to that site's own cost center. In this research, travel expenses are studied in more detail.

Travel expenses are costs that are occurring during employee's domestic or international business travel. Business trips must be conducted as economically as possible based on the company's guidelines. It is possible to compensate employee tax-free if authorized in local law. Travel expenses consist of travelling and accommodation costs and any other necessary expenses concerning business trip. Both expenses and travel time must be limited. Travelling method should be the most inexpensive option in case it is reasonable choice considering the used time and planned work duties can be performed as expected. (Wihuri Group, 2020.)

Wihuri Group's contract hotels must be selected for accommodation if they are available at destination. However, hotel selection must be economical for the company. Flights can be used for business trips if it is appropriate and reaching destination by other means of transport would exceed three hours. Economy class shall be prioritized. Employee may book a business class flight in case flight duration exceeds six hours between continents and if he or she is starting work immediately at the office. Flights should be booked minimum two weeks prior to business trip. Travelling by ship is only approved, if travelling time is not exceeding transit time by air. In case train is selected, the most inexpensive ticket must be used. Public

transportation such as bus or train shall be preferred over taxi for example when travelling to airport or to accommodation. Taxi is allowed when it is the most applicable option. Rental cars can be chosen via contract agencies, when it is definitely required, and it is the most economical mode of transportation. Employee must evaluate distance and number of travellers while searching the most economical option. Own vehicles can be used if it is approved by supervisor. Compensation for own car is refunded based on the local legislation. (Wihuri Group, 2020.)

Travel expense invoice can include travel tickets, tickets for seats and beds in trains, airport bus costs, excess weight charges on luggage in case overweight items are required for work, different administration fees in destination country, mobile phone expenses, local transportation expenses including taxis, and rental car expenses. Each cost item must be accompanied by a receipt if they are placed on travel invoice. Daily allowance will be paid based on the local regulations for increased living expenses such as for meals. (Wihuri Group, 2020.) Besides, financial analysis and cost consciousness must be reviewed together with operational efficiency in performance management.

6.2 Efficiency

Organizations are typically seeking for efficiency in their operations in terms of resources and costs. Efficiency as a concept is often misunderstood or at least people interpret it quite freely. In this research, efficiency in support service stands for careful usage of resources such as time, personnel, and capital. Efficiency can be measured in both manufacturing and service industry. Next, the theory on efficiency, effectiveness and operational excellence is presented.

Performance management consists of organizational efficiency, efficacy, and competitiveness. Economic efficiency is a basis for economic activities. It is a qualitative measurement of economic growth, which can be achieved by a careful employment of resources. When improving efficiency, time, human factors, overall conditions, and organizational potential should be evaluated. Efficiency stands for a beneficial balance between profits and costs. Developing organizational efficiency has

also a positive impact on efficacy. (Laura-Georgeta, 2011.) Laura Stack (2019) defines effectiveness and efficiency as follows: “Effectiveness is doing the right things, while efficiency is doing things right.” When both concepts are valid, it results to high productivity. Efficiency can also be defined as best possible output, while it is often mixed up with productivity. Anyhow, productivity is a quantitative measure on output and efficiency signifies to quality in production. Besides, efficiency reviews performance quality and it includes cost and resourcing evaluation. (Stack, 2019.) Furthermore, Wipak’s value for trust correlates to effectiveness. It ends with a statement: “We do the right thing.”

Operational effectiveness is concentrating on valid topics. Being more precise, it stands for the assumption that all operations create value to end customer. It measures how effectively targets are achieved by reviewing what is carried out. Operational efficiency denotes running processes correctly. It is quality-oriented by measuring how operations are run. Operational efficiency signifies organization’s competence to manufacture products or produce services in the most efficient way without forgetting high quality of service, items, or support. It is not a concept to plan cost reductions. Operational excellence represents strategy of an organization. It is a value-adding concept for customers, including cost leadership target. Operational excellence as a strategy fits in circumstances, where customers value low-cost items or services. If the previous concepts were described by what and how, this last concept of excellence is for why operations are carried out. When developing operations, it is not beneficial to investigate effectiveness or efficiency as stand-alone concepts. Rather better approach is to consider, how to become more effective or efficient. (Turgoose, n.d.) While adjusting operations in terms of efficiency, future, and sustainability together with environmental matters must be aligned in the strategy.

6.3 Future and sustainability

Wipak’s value for the future is phrased as follows: “We work today for a more sustainable planet tomorrow. We target long-term success for our business and our customer’s business. We are with our customers and employees now and in the future.” (Wipak, n.d., section “About us”.) Sustainability is a comprehensive concept that is

often misunderstood. It considered to stand for green values overall or for environmental health and safety. However, sustainability represents balancing the existence of economic, social, and natural environmental systems in mutual tolerance far into the future. Human actions should not limit the resources on drinking water, air for breathing, fertile soil, and rich oceans. Sustainability also relates to human well-being and economic systems. Both concepts should support avoiding social distress and turbulence. Sustainable thinking is also the magnitude to meet today's requirements and assure that future generations have the same possibility. (Kassel, 2014, pp. 5–6, 21.)

Sustainability can be embedded in financial reporting with accounting framework called triple bottom line (3BL). It combines ecological and social performance and takes people, profit, and planet into consideration (3P). Equivalently, it can be expressed as equity, ecology, and economy (3E). Ideally, it incorporates natural and human capital to evaluate organizational success. One challenge in 3BL is that the three elements cannot be measured against each other. Profit is a clear numeric element, but there are no explicit guidelines, how to measure and compare the loss of critical ecosystems, clean air, or community well-being. However, many environmental footprints can be measured. It is possible to evaluate energy and water consumption or pollution emissions. Similarly, social influences such as work safety, diversity, talent management and community investments can be measured. All these can be reported in annual financial report, environmental or social report or even in a separate sustainability report. (Kassel, 2014, pp. 27–29.)

Wipak Group's sustainability approach concerns sustainable packaging solutions to customers and work safety in the company. Wipak develops innovative packaging solutions together with customers to offer protection on customers' products through sustainable concepts. When for example food products are well protected, longer possible storing time enables efficiency throughout fragile value chains. For Wipak, sustainability stands for even more than considering future generations. Sustainability is firmly embedded family values in transparent and long-term decision making that are beneficial to society and stakeholders. It includes "zero harm" vision to guarantee work safety. (Wipak, n.d., section "Our Sustainability Approach".)

6.4 Environmental footprint

One big impact on the future is carbon emissions and global warming overall. When analyzing business travelling, one crucial factor is flying as it is usually the only feasible option. Flying causes an unfortunate number of emissions per flight. This chapter will introduce examples on creating sustainable future by taking airline contribution into account. As most of the solution expert team's business trips will start from Finland or from Germany, the example airlines are Finnair and Lufthansa.

Air travelling is releasing pollution significantly more compared to car or public transportation. Even though fuel consumption per person could be lower in fully loaded aircraft compared to a private car, aircraft is travelling longer distances. One inter-continental return flight is apparently exceeding one person's yearly average car usage emissions. Based on this assumption, air travelling becomes a determining factor in carbon dioxide emissions per person. Furthermore, jet engines release nitrogen oxides, which are considered as warming agents. Science is still arguing whether condensation trails are causing global warming. Nevertheless, it is assumed that the impact is definitely more than simply carbon dioxide. When reviewing the whole world, air travelling is seemingly responsible for 2,5% of carbon dioxide emissions. If taking the latest finding of condensation trails and nitrogen oxides into account, the figure can result to even doubled to 5%. (Goodall, 2010, pp. 174–175.)

When calculating actual carbon dioxide emissions, aviation average is 150g per passenger kilometer. Shorter flights inside European continent by efficient new planes with higher seating rate can result as low as 100g. Long-distance flights can on the contrary reach even 200g with older aircrafts. (Goodall, 2010, p. 178.) The Covid-19 pandemic has decreased carbon dioxide emissions remarkably. As an example, Finland's state-owned airline Finnair reported 76% less CO₂ emissions in the first quarter of 2021 compared to 2020. The total Finnair's emission in the first quarter of 2021 was 176 000 tons, which still equals to annual carbon emissions of 34 000 cars. (YLE News, 2021.)

New aircraft designs with different wing forms can have a positive effect on decreasing carbon dioxide emissions. Another attempt is to start using biofuels instead of traditional aviation kerosene. (Goodall, 2010, p. 183.) Finnair has an objective to become carbon neutral by the end of 2045. One milestone is planned for 2025, where net emissions will be cut by 50% compared to 2019 including net zero carbon dioxide emissions in non-flight operations. One key element in emission reduction is fleet renewal initiative between years 2020 and 2025. Finnair estimates that this will reduce carbon dioxide emissions in European traffic by 10–15%. Other principles are decreasing aircraft weight and increasing the usage of sustainable aviation fuels. Using sustainable fuel is sufficient enough to meet the objective but it also requires careful planning regarding fuel efficiency. Fuel efficiency stands for new measures in flight planning, ground operations, decreasing aircraft weight, and how pilots are actually operating during flights. Finnair is also investigating new solutions such as electric flying and synthetic kerosene. (Finnair, n.d.) Lufthansa has similar target setting to Finnair. They plan to reach 50% reduction on carbon emissions by 2030 compared to 2019. Complete carbon neutrality will be achieved by 2050. Fleet renewal and sustainable aviation fuels are core concepts in their mission. Furthermore, they have concentrated on intermodal transportation and networked closely with Deutsche Bahn to offer better connections to Lufthansa hubs. (Lufthansa Group, n.d., section Fuel Consumption and Emissions.) Lufthansa also actively involves passengers in their objectives. They launched Compensaid platform in 2019, where passengers can compensate environmental impact of their flights. Passengers can pay a surcharge for innovative fuel, or they can contribute to projects of Swiss climate protection organization. Lufthansa has compensated their own employees' business trip related carbon emissions since 2019. (Lufthansa Group, n.d., section Fly CO2 neutral.)

Business travellers have several options, how to be responsible and how to reduce carbon footprint while travelling. For shorter distances, bus, train or even car are better options than flying. Car can have higher emissions than plane in case travelling alone, but a shared ride for a shorter distance is already an environmental option. Direct flights are a responsible option, as they have the most direct route to destination. Stop-overs tend to increase distance, which corresponds to more emissions. Aircrafts pollute most during take-off and landing, which promotes preferring direct flights. Economy class tickets are traditionally more inexpensive than business class tickets.

Additionally, carbon footprint in economy class is smaller as business class seats occupy more room. Luggage weight and carbon emissions have a relationship. A lightweight suitcase with careful packing decreases CO₂ emissions. (Brajcich, 2020.) According to Finnair, passengers can reduce carbon footprint by 5% simply with 5 kilograms lighter luggage. (Finnair, n.d., section Emission Calculator). Carbon footprint offsetting does not need to be limited to flying, practicalities can also be applied for instance in hotel living. Travellers should choose only eco-friendly hotels. Do not disturb -sign on the door indicates that a hotel guest does not wish the room to be vacuumed or towels to be changed. This small act reduces carbon footprint. Similarly, guests could turn off all electronic appliances such as air conditioning and television when leaving the room. (Brajcich, 2020.) Organizations must pay attention in preserving nature by reducing environmental footprint and by making sustainable decisions. However, the most important asset of organizations is employees and their work safety.

6.5 Work safety

One of Wipak Group's most important key performance indicator and business objective is safety. It is also mentioned in Wipak's value of together: "We prioritize the well-being and safety of each individual." The target is to have zero safety incidents at Wipak's manufacturing sites, offices, and business trips. This research concentrates on safety in business travelling.

Business travelling is often considered to be a privilege, but when investigating the concept slightly deeper, it is not that appealing anymore. Travelling can have a clear negative impact on employee's health and well-being. Often this side of travelling impact is totally forgotten. Recurring travelling can cause higher alcohol consumption, undesired influence on nutrition, unhealthy dietary choices, and minimal physical activity. Jet lag symptoms then are sleeping problems, troubles in keeping focused, tiredness, digestive issues, and changes in emotional state. These all have an adverse impact on work performance. (Beyond Business Travel, 2017.) Frequent travelling, especially long-distance flying, is supposed to put people at risk of deep-vein thrombosis, dry eyes, and dehydrated skin (Anderson, 2015, p. 10). Consequences of

business travelling is correlating to travel stress. Earlier mentioned symptoms such as unhealthy dietary choices and minimal physical exercising are associated with health behavior and attitudes. One further example is anxiety about personal health and safety overall. Similar variables to health topics are work pressure associations and family concerns. Upon returning to office, workload is often increasing as there is no back-up for duties. Employees may not always have a possibility to influence on travel schedule and weekends might be spent at work while travelling. Business trips isolate employees from their family and friends. It is natural to worry, how family is surviving. However, all these factors expose to travel stress. (Striker et al., 1999.)

The pandemic has extended people's knowledge on germ exposure for example in crowds, during grocery shopping, at gyms, at airports or even in-flight. It has been commonly known that washing hands will prevent infections but is it worth trusting that all co-travellers are responsible enough. An enormous number of people flows through airports daily and boards in airplanes. The first place of significant germ exposure at airport is security check and trays, where microbiologists have even found evidence of fecal bacteria (Rossen & Davis, 2014). The next considerable risk spots at airports are bathroom stall locks and drinking fountain buttons. When boarding in airplane, tray table is the dirtiest place onboard. Other places, where all passengers will be touching and enabling bacteria are overhead air vent, lavatory flush button and seatbelt buckle. Anyway, using hand sanitizer is always a protective measure. (Travelmath, n.d.) Additionally, each passenger can sanitize surfaces with own antibacterial wipes (Rossen & Davis, 2014).

One great and simply undermined risk in business travelling is ground transportation. Road traffic accidents have a huge yearly death toll without forgetting all possible injuries obtained in different incidents. Increased risk for business traveller prevails mostly in poor road conditions, unsafe vehicles and in inadequate knowledge on local traffic laws. In lower risk countries, it is acceptable to allow self-driving. It would be anyway advisable to have clear policies when to choose own car, taxi, or public transportation. Moreover, a pre-travel training can be beneficial. For high-risk countries it should be self-evident that employees are choosing local service providers for transportation. Local drivers are used to their present traffic conditions, which should provide more safety. (Judge, 2019.)

However, travelling entitles business by empowering companies' possibilities to achieve their business objectives. With a few guidelines, it is possible to travel safer and enable employee health and well-being. Direct flights are the best for travellers. Connecting flights always have idle time at airports, which is increasing travelling time. Selected hotels should be equipped with quiet floors and fitness rooms. Extra nights before and after actual work event allow employees to recover. Stress management and well-being trainings that handle business travelling are useful. Additionally, it creates a feeling of security, when there is one expert point of contact for travel related information for example on health risks, visa application procedures and up-to-date flight information. (Beyond Business Travel, 2017.) To rest after a business trip, it would be advisable to formally approve a day off. This would support stress management and well-being by showing that a manager is caring and focused on employee health. Workload must be in balance. Organization's medical department is in key position in offering recommendation and guidance for frequent travellers to manage stress and to find a healthy balance in life. (Striker et al., 1999.)

6.6 Summary of performance management

Strategy is a foundation of an organization. All operations must correlate to the strategy. Strategy is created based on environmental scanning attributes, which are natural environment, societal environment, task environment and internal environment. Companies basically promise to take care of their economics, employees, stakeholders, and environment to name a few concepts. Strategic initiatives are usually measured with key performance indicators. Performance targets are often finance related, for instance profitability or cost reductions. Safety and carbon dioxide emission reductions are additional key targets for Wipak Group. Chapter 5 for Human Factors in Support Work brought up variables, why social contact is important and why sometimes travelling should be possible. However, a thorough analyzing requires expanding the question to performance management. To manage processes efficiently, cost analysis, environmental impact and work safety must be integrated into the evaluation. Wipak has promised to be a sustainable flexible packaging manufacturer, which means from sustainability angle balancing the existence of

economic, social, and natural environmental systems in mutual tolerance far into the future. When planning travelling, cost efficiency is a target. Each business trip must be conducted based on travel policy. To leave as small carbon footprint as possible, direct flights must be preferred. Luggage weight should be balanced as light as possible. Employee's travel safety must be enforced by checking the pandemic situation. Everybody should remember hygiene tips regarding hand sanitizer and antibacterial wipes. Rental cars are an option only in countries with usual traffic conditions, not for instance in the United Kingdom and China. Personal well-being is an important safety measure and overall workload must be evaluated against travel requirements. The remaining dilemma still is, when to travel and is it necessary to travel. Cost reduction is not typically associated with good quality hence it is a crucial element in efficiency. When improving efficiency, time and human factors in particular should be assessed. However, establishing a balanced approach including modern collaboration tools and occasional travelling to enable social interaction, should lead to efficient support model. Next, this core dilemma will be evaluated through the empirical research.

7 RESEARCH PROCESS

The empirical part of this research relies on survey and interview as data collection methods. Two different surveys were conducted at Wipak Group, and a more universal survey was planned to be sent to few external organizations to prove the research reliability. The original idea was to benchmark the key user survey. Based on the discussions with the probable benchmark companies, it was more feasible option to create a survey, where both a support provider and a support receiver can answer. There are always some differences between the support organization structures. The target group of the first survey was Wipak's solution expert team, which represents the support side's opinions in the research dilemma presented in Figure 2. It is assumed that a support team working on group level functions will consider both human and performance factors in their work providing objective arguments in the study. The second survey at Wipak was targeted to key users, who provide information on personnel that receives the support service, and mostly considers the human factor elements. The third survey was planned to be delivered to few external organizations to benchmark support level and key user point of views towards Wipak's organization. Interviews were carried out with the managing directors of Wipak's production units. When the data collection is carefully planned and adjusted per different personnel groups involved in the support work, objective results should emerge for further usage. Next chapters will introduce the data collection methods and the final results for each target group.

7.1 Survey of Wipak's solution experts

The solution expert survey was originally planned for seven team members, but during the research one team member left Wipak and the number of respondents dropped into six team members. All the six members answered the survey, so the response rate was 100%. Solution expert survey had themes around culture, personality, support work, face-to-face and remote interaction, travelling, and efficiency. The more detailed questions with the invitation letter are found in Appendix 1. The first aim was to link Wipak's manufacturing sites with Hofstede's cultural dimensions and to cross-check,

whether culture is a fundamental matter in global support work or not. However, it became evident that with small research samples it is not possible to evaluate cultural variances and find trend patterns. Hence, cultural research in this study is totally based on the literature review. Alongside with culture, the relevance of key users' personality was evaluated. Support work related questions listed the traditional support tasks and found out, which ones are clear reasons to travel onsite, and which ones can be handled remotely. Interaction theme assessed pros and cons of face-to-face and remote collaboration. Additionally, there were statements that correlated to Maslow's theory of basic needs such as belonging. Regarding travelling, respondents listed reasons for travelling and how to ensure that all the arrangements are as efficient as possible. In order not to exclude crucial point of views, the survey had several opportunities to add further input in open ended answers.

Culture and personality define, how people are behaving. Half of the solution experts consider that key user's personality impacts on the support situation very much or somewhat a lot. The other half have no opinion, or they think that personality is not that huge variable while supporting key users. Due to the variation in answers, individual interviews were carried out to support the findings. The ones considering personality from behavioral point of view found it as an important factor in the support work. The solution experts expect that key users are acting as key users, they are constantly curious to learn something new, they are willing to solve problems, and they are accountable regarding the role. The ones considering personality from expressional point of view thought that key users are supported in equal manner regardless of if they were introverts or extroverts. Personality is formed by thought patterns, characteristics, feelings, and behaviors that are shaping people in their unique form that can be influenced by genetics, environment, and experience (Cherry, 2020). The conclusion is that personality has a significant impact on the support situation. Cultural research for Wipak teams will be presented with Hofstede's dimensions in Chapter 7.3.

Solution support work can be split into different support tasks. One of the research targets was to produce a service offering, which clearly describes requirements for travelling onsite or working remotely. Based on the solution experts' answers, clear cases to work remotely are daily support work, key user network meetings, training of

smaller developments or continuous improvement items, smaller bug fixes and meetings which duration is three hours or less. On the contrary, definition workshops, go-live trainings or go-live support for roll-out projects or equivalent bigger changes always require onsite presence. The rest of the recognized tasks have slightly contradicting opinions. Further, open comments provided broader overview on the matter. Generally, all activities requiring detailed understanding such as fit-gaps or trainings with several participants, should be organized onsite. Similarly, longer meetings should be held onsite as people are easily distracted especially when experiencing tiredness. However, it is not simple to create an absolute rule in dividing tasks into onsite and remote ones. The solution experts should be trusted in deciding and evaluating, whether to travel or not.

Both onsite visits and remote collaboration have positive and negative impacts. When considering onsite visits, the solution experts value most the possibility to observe and shadow physical processes. Then, feeling of belonging and working together, and possibility to interpret others' facial expressions are crucial characteristics. Few team members listed also engaging all participants and avoiding technical challenges such as poor network connection as positive impacts. Nobody ranked casual discussions as one of three main benefits or put a major emphasis on computing skills of participants. When evaluating the negative impacts on travelling onsite, the solution experts regard resource inefficiency in terms of cost and time as the worst factor. The next topics in line are the need to stay away from family, risk of infections and own well-being in terms of poor nutrition, troubles in sleeping, and lack of exercising. Few members mentioned long working days, but nobody points out traffic conditions. The main benefits for remote collaboration are resource efficiency in terms of costs and time and the possibility to work normal hours. The other significant factors are no piling up of work tasks and no safety risks such as traffic conditions and infections. The most obvious negative impact on remote collaboration is the challenge to keep participants engaged. The other visible elements are impossibility to interpret others' facial expressions, not possible to monitor or shadow daily work properly and high likelihood of misinterpretations. Nobody ranked missing casual discussions as a negative impact.

The usual reason to travel onsite is to handle matters as efficiently as possible. The other probable causes are to organize a training or to support daily operations. Nobody mentions maintaining relationships with colleagues as top three reasons to travel. When contemplating the number of trips per month, the solution experts state that twice a month or more of travelling is already immoderate. The key elements of cost-efficient travelling are presented in Figure 9. To travel cost efficiently and economically, 28% of solution experts rank avoiding one day trips as a significant concept and 22% book itineraries well in advance. It is also a common practice to double-check, whether matters could be anyway handled online, and if not possible, a complete agenda is planned in advance.

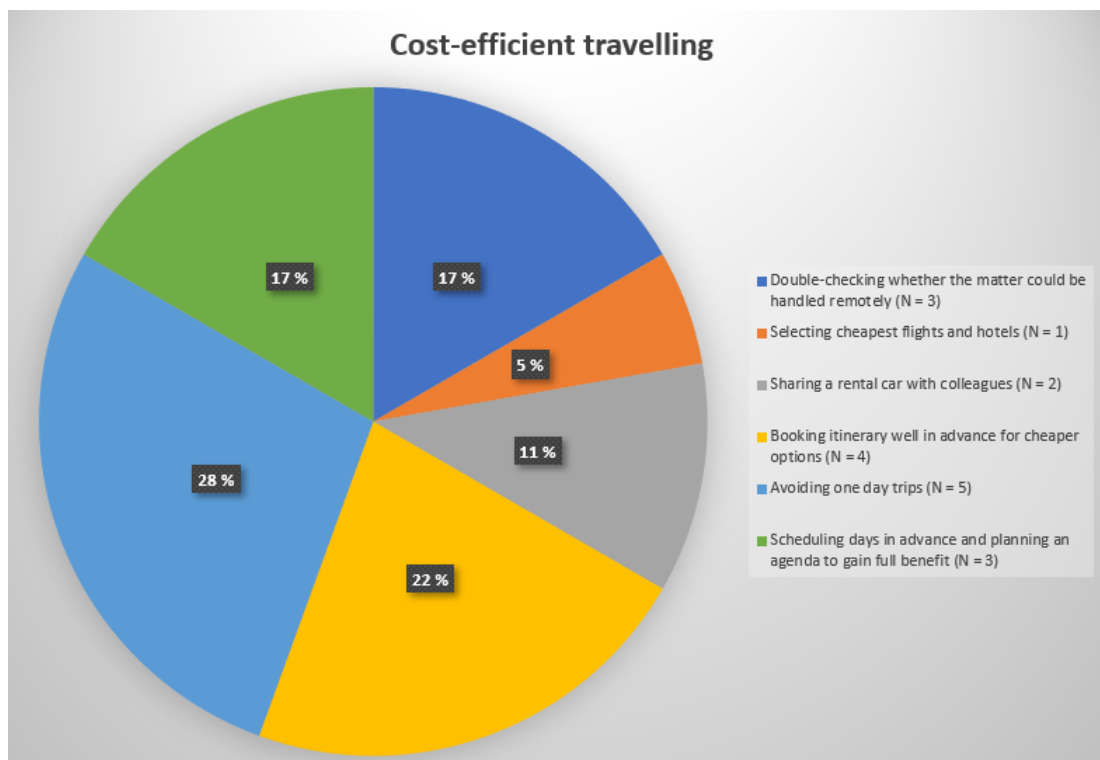


Figure 9. Elements in cost-efficient travelling

67% of the team have not experienced troubles, feeling of failing or frustration due to decreased travelling. In open ended comments, they elaborate, how work tasks are not piling up and there is more working time per week as earlier one and half days was spent enroute. Remote work also provides more flexibility in combining private and work life together. However, face-to-face meetings with own colleagues are missed as described in the quote from the survey Question 18.

Due to the switch to the remote work, some tasks are more difficult, like the training, Go-Live actions and migration work. But the remote work offered a lot of possibilities on your work and on your private live. But I am missing the face-to-face meetings with my colleagues a lot.

According to the answers, the solution experts should meet face-to-face twice or more per year.

The final open-ended question provided an opportunity to address ways to improve and develop the service of the solution experts. The team raises up that the age structure is as important element as the cultural factors in Question 20.

I think in an international team (like the SolEx-team) you need to consider all cultural variation as well as the age structure. I think the younger team members are more engaged, more powerful and with fresh ideas. But the older ones have the experience and knowledge. To combine all these different properties in a balanced way is the success factor.

Further, the solution experts should visit each production unit once or twice a year. These visits could be planned for instance with the solution experts' own team meetings or development testing sessions. It has been proven several times that users communicate minor issues rather face-to-face than remotely. However, these minor issues may have a huge impact on their daily work. The next chapter investigates support work from a different angle.

7.2 Survey of Wipak's key users

If the solution expert survey researched more the support provider side, the key user survey is concentrating on the service receivers' end. The key user survey was delivered to 165 key users at Wipak. 67 respondents completed the survey, which leads to a response rate of 41%. Approximately 50 users are shopfloor workers, and they do not have unlimited access to emails. Further, the survey was in English, which is not the most fluent language for each key user although it is Wipak's corporate language alongside Finnish. Considering this background, the response rate was acceptable. Six respondents claimed that they are not key users. However, each respondent stands up as a key user for the solution expert team, hence these six opinions were not excluded. The key user survey had themes around culture, personality, support work, face-to-face and remote interaction, and efficiency. The more detailed questions with the

invitation letter are found in Appendix 2. The first aim was to link Wipak's manufacturing sites with Hofstede's cultural dimensions and to cross-check, whether culture is a fundamental matter in global support work or not. However, it became evident that with small research samples it is not possible to evaluate cultural variances and find trend patterns. Hence, cultural research in this study is totally based on the literature review. Support work related questions listed the traditional support tasks and found out, which ones are clear reasons to receive onsite support, and which ones can be handled remotely. Interaction theme assessed pros and cons of face-to-face and remote collaboration. Additionally, there were statements that correlated to Maslow's theory of basic needs such as belonging. In order not to exclude crucial point of views, the survey had several opportunities to add further input in open ended answers. The cultural theory for Wipak teams will be presented with Hofstede's dimensions in Chapter 7.3.

First, key users were evaluating different support tasks and whether these could be performed remotely or is it better to suggest onsite interaction. Obvious examples of remote work are daily support, key user network meetings, training of smaller developments or continuous improvement items, smaller bug fixes, and shorter meetings which duration is three hours or less. On the contrary, definition workshops, go-live trainings or go-live support for roll-out projects or equivalent bigger changes always require onsite presence. Additionally, two-thirds of key users are certain that workshops that are lasting three hours or more shall be held onsite. Open ended answers in Question 6 provided deeper analysis on the topic.

Every time there are some changes that require big effort and involve a lot of people, I think the best solution is onsite work.

One key user compared remote and onsite support with further thoughts.

REMOTE SUPPORT - it is useful when the topic is not related to strong process changes. when I just need to know new rules, transactions, or updates about how to handle an existing process, in my opinion an onsite support is not needed. ONSITE SUPPORT - I really would appreciate whether there could be the possibility to share my improvement ideas for processes or simply exchange my views with a colleague who has the same tasks as mine in other factories. E.g., SAP has been implemented but there are always lot of investigations to perform. Sometimes I would prefer to have someone physically by my side to teach me all the secrets and tips behind this system. I mean, it is not easy to communicate by remote teamworking for something which is unknown and need to be enhanced.

Remote meetings can also be distracted by tangible or intangible matters.

Sometimes remote meetings are disturbed by people coming into your office or by connection quality.

It is visible that people would enjoy collaborating face-to-face and sharing experiences with other persons facing a similar situation. Users appreciate that supporters are observing daily tasks to show best practices. Further, remote working is efficient for smaller tasks and for existing processes. Many users are sharing offices, which can cause distraction in a similar manner such as a poor connection.

Onsite visits and remote collaboration can have positive and negative impacts also at key users' end. The main benefits of face-to-face meetings, workshops or trainings are feeling of belonging and working together, engaging all participants, and becoming acquainted better. Open ended comments supported the importance to becoming acquainted better. One aspect to consider is that people may feel more comfortable in asking questions face-to-face as stated in the answer for Question 8:

Questions from the trained parties are more likely to raise up in face-to-face meetings. It is too easy to hide behind the screen in online meetings.

Similar finding was raised up in the solution expert survey. On the opposite side regarding the main negative impacts, key users are listing resource inefficiency in terms of costs and time, risk of infections and inflexibility regarding meeting schedule and venue. The main benefits for remote collaboration are resource efficiency in terms of cost and time, flexibility regarding meeting schedule and venue and no safety risks such as infections. 76% of the respondents ranked the efficiency topic as a top three benefit. On the opposite side, the main negative impacts for remote meetings, workshops and trainings are challenges to keep all participants engaged, no feeling of belonging and working together and high possibility on misinterpretations. Open ended Question 14 in connection with negative impacts in remote work had some further perspectives.

The people work in other task in parallel. Concentration on the meeting is not fully respected.

People are also missing casual discussions as they can lead to unexpected solutions.

Sometimes the best ideas and solutions emerge indeed in casual discussions. In these conversations, people are more confident in sharing different kinds of thoughts and opinions, which may then result in the final solution or way of working.

The usual reason to request onsite support is to handle matters as efficiently as possible. The next two probable cases to request support onsite are to receive hands-on support on daily operations and to organize a training. 79% of key users have been satisfied with the number of visits from the solution expert team before the pandemic. Open ended answers revealed that key users appreciate that some solution experts are permanently located at their factory, and it was possible to meet daily before the pandemic. Many answers state that problems are well solved remotely. All the respondents from Valkeakoski in Finland, Welshpool in the United Kingdom and Bordi in Italy were satisfied with the visits. The most unsatisfied factory was B.V. in the Netherlands. However, when dividing 67 respondents to 10 different factories, strong conclusions cannot be drawn per manufacturing site.

When considering the future visits in Figure 10, 27% of the respondents declares that they will request a visit on a need basis and 16% says that current collaboration tools are supporting well and the need for support visits are decreasing. 25% claims that each solution expert should visit each site roughly once a year, 18% are satisfied if someone from the solution expert team would visit approximately once a year, and 13% expects someone from Wipak's business IT to visit them yearly. This leads to the conclusions that 57% wishes to have any kind of site visit every year represented by blue slices in Figure 10, and 43% will request separately or finds that current remote tools are supporting well enough on greener slices.

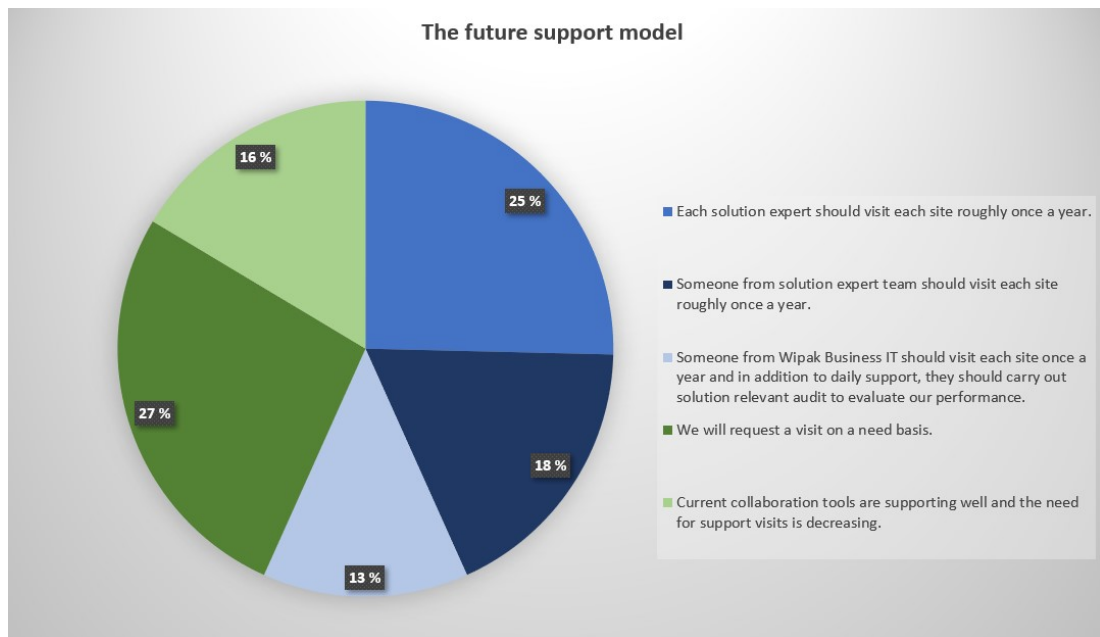


Figure 10. The future support model

15% of the respondents have experienced troubles, feeling of failing or frustration at work due to decreased visits from support teams. 85% are satisfied with the situation and there has been no frustration or feeling of failing. In the open-ended answers, key users are reflecting several times how the support is working well online. However, people miss face-to-face communication as expressed in the open-ended Question 20.

Remote support has worked well during the pandemic, thanks to M365 update and active solution expert. But in big Go-lives I prefer onsite support (for example SAP go-live).

Question 20 also indicates that it is also visible that the solution experts must be active in the support role for successful communication.

Although remote communication can basically solve the problems at present, but face-to-face communication is more efficient and can solve some small, detailed issues without even noticing.

When analyzing the open-ended answers of unsatisfied users, they miss face-to-face contact, feel that there have been no visits at all or overall responding to requests takes overly long time.

The most useful and supportive items in the remote support model presented in Figure 11 are the user instructions, ticketing tool, and key user teams. 94% state that they use frequently or sometimes user instructions, the same figure for the ticketing tool usage

is 93% and for the key user teams 90%. Key user colleagues are also a frequent source of support as well as Teams call to a solution expert.

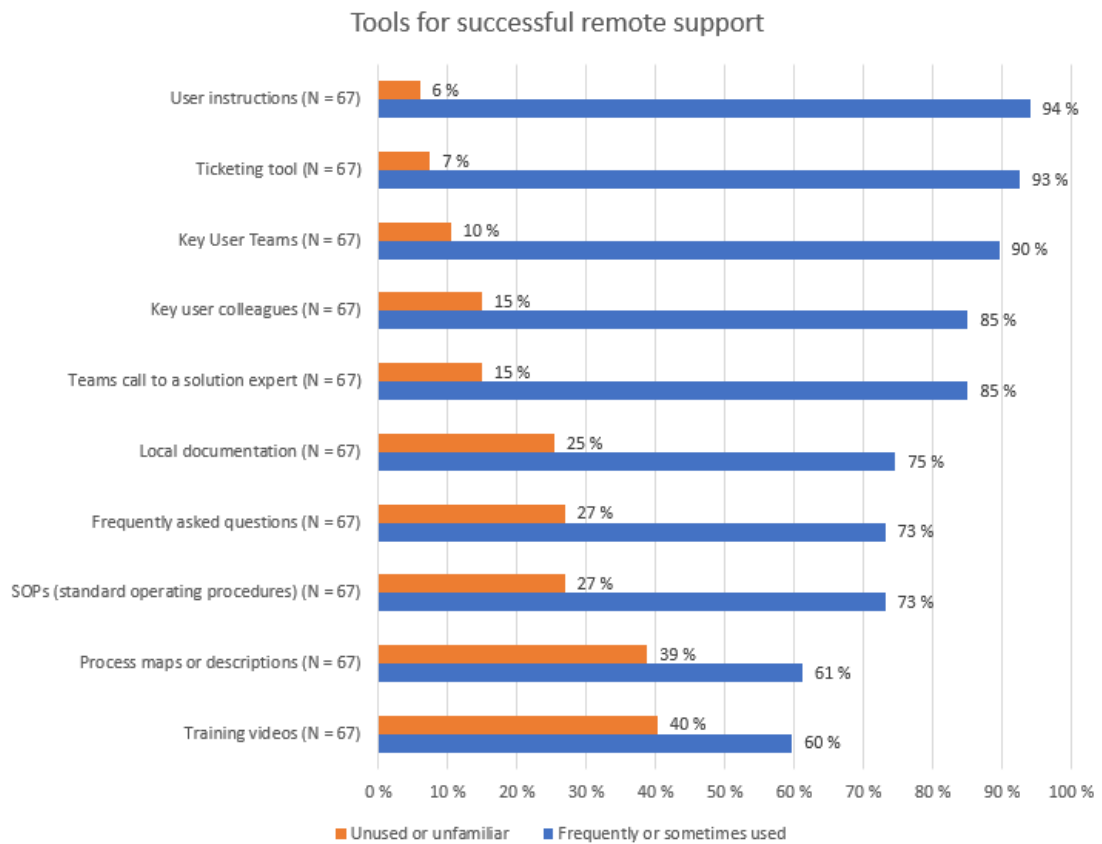


Figure 11. Tools for successful remote support

The most unused and unfamiliar support tool is training videos, where 40% do not use or recognize it. The second unfamiliar tool is process maps and description with 39% and standard operating procedures (SOP), and frequently asked questions by 27%. A fourth of key users is not aware of local documentation or not using it regularly.

The last open-ended question handled the overall service of the solution expert team, where key users were able to provide feedback or improvement ideas for the future. In general, key users are satisfied with the service and the solution expert team. When working remotely, all the available methods of communication should be utilized as stated in the open-ended answer for Question 23.

Sometimes even a simple request may not be understood, it is better explained on the phone, the experts should make a call instead of asking other questions by email.

Reading emails properly is a talent, as all the gestures and tones are not visible. A Teams call is more personal and warmer way to handle cases and it should not be neglected. Furthermore, key users are pointing out the importance of frequent key user network meetings. Each solution expert is supposed to organize monthly or bi-monthly calls within their solution network. Additionally, videos are mentioned as a remote support enabler, as watching recordings is neither bound to a location or time. Finally, a newly launched Jira Service Desk ticketing tool is praised in the answer to Question 23. The solution expert team handled earlier incidents via email or Teams. In October 2021, a ticketing tool was deployed for more transparent and structured way of working.

I think Jira Ticketing Tool has been a great tool and improvement. With Ticketing Tool, issues are handled reliably and fast. Earlier all was lost in emails without a possibility to really keep track of the progress. Now all is in Jira and all participants can view the same. A great improvement! Many thanks to all of you!

The next chapter expands the research results by bringing in the cultural dimensions and perspective in terms of Wipak's teams.

7.3 Cultural research on Wipak teams

The cultural research on Wipak teams is based on Hofstede's cultural dimensions in order to exploit a reliable and valid data source. The key user survey published in this research achieved 67 respondents for 10 manufacturing sites, thus it cannot be the source of cultural data and comparisons. Further, the survey for the solution experts had under 10 participants, which also supports utilizing external data source for culture. The solution expert team is located in Finland, Germany, and Poland. Each country has also production plants, where internal customers are located. Other production plants using SAP are in France, the Netherlands, the United Kingdom, China, and Italy. Figure 12 compares cultural dimensions and how they impact on the support work and relationships.

In Figure 12, the scale is set from 0 to 100, where 50 is mid-level. If a country scores under 50, the result is low in the dimension. All above 50 can be considered as a high result. For instance, with individualism a score under 50 is ranked as collectivistic and

a result over 50 equals to individualistic. As the scores are relative and based on comparison, the most accurate way to evaluate countries is to compare them for example by being more or less individualistic than the other. (Hofstede-Insights, 2022, section “FAQ”).

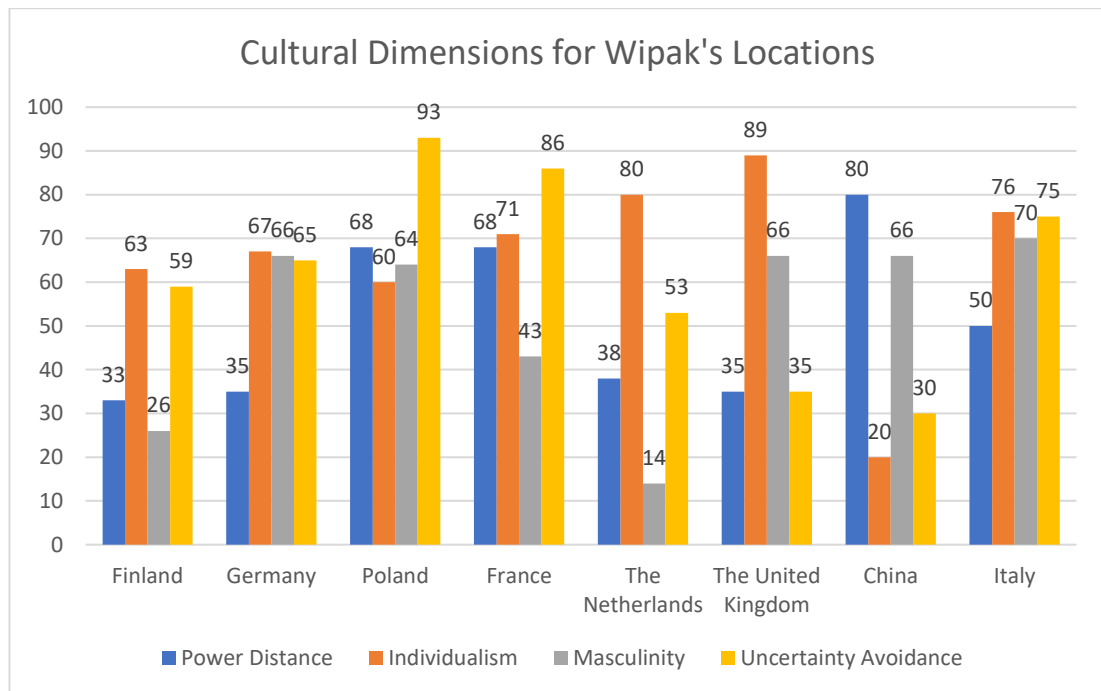


Figure 12. Country comparison based on Wipak’s locations (Hofstede-Insights, 2021a; Hofstede-Insights, 2021b; Hofstede-Insights, 2021c.)

Power distance for Finland is 33, whereas Germany is slightly higher 35, and Poland scores 68 with even higher figure (Hofstede-Insights, 2021a). Other low power distance countries with Finland are the Netherlands and the United Kingdom. France and China score relatively high, and Italy is in moderate 50. (Hofstede-Insights, 2021b; Hofstede-Insights, 2021c.) Power distance at workplace symbolizes manager-subordinate relationships. Large power distance countries have unequal managers and subordinates. Organizations are hierarchical and based on strong authorities with highly centralized power. Subordinates do not initiate tasks without separate direction. Status gaps are visible in terms of education and salary. Small power distance denotes equality between managers and subordinates. Organizations are flat and decentralized. Gaps in salary are rather small and education level does not necessarily relate to rank. It is normal to consult subordinates in decision making, although it is accepted that managers oversee final decisions. Companies can remain efficient regardless power

distance state. Large power distances cultures are coherent in disciplinary tasks, whereas small power distance cultures emphasize employee initiatives. The significant point is to utilize local cultural strengths. (Hofstede et al., 2010, p. 67–69.)

For individualism, Finland has 63, Germany 67, and Poland 60. This means that each culture is individualistic. All the Wipak countries are individualistic except China, where people put group's interest before individual. Managing of individuals is the key concept. Communication style is very direct, which allows persons a chance to learn from mistakes. Self-actualization is a desired element. Loyalty can be acquired in case it fits in one's personal predisposition. Polish culture is to some degree exceptional in terms of individualism. Having high score on power distance builds a traction with individualism. Polish people are individualistic but there is a need for hierarchy. (Hofstede-Insights, 2021a; Hofstede-Insights, 2021b; Hofstede-Insights, 2021c.)

Individualist persons appreciate challenging work environment, where individual freedom regarding deciding ways of working is significant. Work is often organized so that individual's and company's needs are compatible. Individuals have their own psychological and economical needs. Time of personal life after working hours is required. On the contrary, collectivist people desire training opportunities to improve and learn more. They desire to fully employ their existing skill set. Physical working conditions regarding for example decent workspace and lighting are highly valued. There are no individual employees with individual interests, but employees belonging to a group. (Hofstede et al., 2010, p. 82, 104.)

In collectivistic cultures, a direct opposing is deemed as ill-mannered. A word "no" shall not be used as it is an objection. Requests can be responded more politely for instance by saying "we will consider your proposal". "Yes" might not always be an acceptance as such. For example, in Japan it is rather used to maintain communication "Yes, I hear you". In individualistic cultures, honest communication with constructive feedback is preferred. It does not matter if opinions collide, it can lead to even better solutions. (Hofstede et al., 2010, pp. 93.)

In training situations, dividing the group into smaller sub-teams enhances culturally heterogeneous groups to participate more actively. Individualistic persons expect them to be addressed by name and they feel awkward to speak up for the whole group. Collectivistic persons are hesitant to share thoughts especially if there are a lot of strangers in the group. By dividing the group into teams of three to four persons, individual answers become team answers and nominated spokesperson represents the whole sub-team. Management in individualistic societies is management of individuals, whereas collectivistic equivalent is management of groups. It should be noted that most of training and management practices have been developed for individualistic, western world cultures. For example, personal development reviews and training methods for honest sharing of opinions on other colleagues are not compatible in collectivistic cultures. (Hofstede et al., 2010, pp. 102–106.)

Masculinity scores are 26 for Finland, 66 for Germany, and 64 for Poland. Finland represents feminine culture, Germany and Poland masculine. France and the Netherlands remain feminine, but the United Kingdom, China and Italy score masculine. (Hofstede-Insights, 2021a; Hofstede-Insights, 2021b; Hofstede-Insights, 2021c.) Masculine persons live for recognition and opportunity for high income. Higher-level positions including career opportunities and challenging tasks with personal achievements matter. The strongest wins on the conflicts. On the other side, feminine co-workers desire good working relationships with direct management and cooperative teams. Possible conflicts shall be solved by negotiation. Employment should be secured, and family and well-being are important. Status at work is not significant, but meaningful tasks are. The dimension can also be described by a relationship to work overall. In masculine cultures, people live for working. In feminine cultures, people work for living. (Hofstede et al., 2010, pp. 119, 143–147.)

Uncertainty avoidance is shown with scores such as Finland 59, Germany 65, and Poland 93. Results have a great variance, but each culture tends to avoid uncertainty. The United Kingdom with 35 and China 30 are not uncertainty avoiding cultures, whereas France scores high up to 86. The Netherlands is on medium level with 53. High uncertainty avoiding cultures have tight norms for behavior and ways of thinking. Unconventional viewpoints are not easily supported. Rules are valued, even though they would not always make sense. People are hard-working and prefer to be busy.

With low power distance and high uncertainty avoidance, German society values approachable managers with strong expertise. (Hofstede-Insights, 2021a; Hofstede-Insights, 2021b; Hofstede-Insights, 2021c.)

Uncertainty avoidance reflects in training situations. Often, high uncertainty avoidance cultures prefer timetables and structured trainings with detailed objectives. Dilemmas should have only one true solution and a trainer is an expert having all solutions. Low uncertainty avoidance leads to less structured trainings with room for changes, broad objectives, and loose timetable. Dilemmas can have many solutions with lengthy conversations and a trainer does not need to be an expert in everything. High uncertainty avoidance can refer to being hesitant towards new products, information, and technology. This is visible for instance in slow adaptation in electronic communication tools such as mobile devices and web services. Regulations and laws to control employers and employees are visible in uncertainty avoiding societies. Processes are frequently managed by internal guidelines. This emotional need for rules can cause even impractical ways of working. It is common in high uncertainty avoidance countries that work contracts are longer, whereas in low uncertainty avoidance employees stay shorter time in one organization. (Hofstede et al., 2010, pp. 172–176, 183.)

Finland is scoring more universalist than expected based on individualist value. Its culture is more open to outsiders than individualist score presents. On the other hand, Italy is scoring more exclusionist than estimated. Its culture is not that open to outsiders. (Hofstede et al., 2010, p. 86.) Large power distance countries are usually collectivistic, where a need for a group correlate to a need for powerful others. Small power distance countries are often individualistic. France is an exception by being a medium power distance country with strong individualism. This French exception is called as the rationale of honor. It is important to have a rank, but the rank serves individual rather than any group. (Hofstede et al., 2010, p. 89.) Web services are not very widely used in collectivistic cultures as those activities are always competing with family time. Individualist cultures find Internet and web services as individual opportunities. (Hofstede et al., 2010, pp. 107–108.) France has a moderate feminine score with French sense of moderation, meaning that it is possible to cooperate while

agreeing to disagree (Hofstede et al., 2010, p. 144). After researching Wipak's side, it is time to confirm the results with the benchmark organization.

7.4 Benchmark survey

The plan was to find two companies for the benchmark survey. The benchmark company should have SAP in use and a support organization that is similar and comparable enough to Wipak's organization. The researcher used own relationships in searching suitable companies, as often organizations are reluctant to allow completely outsiders to conduct a survey. Four benchmark candidates were found, out of which unfortunately only one approved sending the survey. Two companies would have considered participating later in year 2022 and one was not willing to let an outsider to conduct a survey. As a result, the benchmark company for this research is UPM Communication Papers and their business support and key users in sales and supply chain department. The main difference between UPM Communication Papers and Wipak's support organization is that UPM has full-time key users (Segerståhl, 2022). Wipak's key users are acting as key users in addition to their daily business responsibilities. Hence, it creates higher support demand to Wipak's solution support, and their expertise is often required also in local matters.

UPM Communication Papers' business support consists of business support specialists and key users. The survey was sent to 17 respondents, out of which 10 participated, leading to a response rate of 59%. Six respondents informed that they are business support specialists and four were key users. UPM's business support specialists are equivalent to Wipak's solution experts. The benchmark survey had themes around culture, personality, support work, face-to-face and remote interaction, travelling, and efficiency. The more detailed questions with the invitation letter are found in Appendix 3. Support work related questions listed the traditional support tasks and found out, which ones are clear reasons to travel onsite, and which ones can be handled remotely. Interaction theme assessed pros and cons of face-to-face and remote collaboration. Additionally, there were statements that correlated to Maslow's theory of basic needs such as belonging. Regarding travelling, respondents listed reasons for travelling and how to ensure that all the arrangements are as efficient as possible. In order not to

exclude crucial point of views, the survey had several opportunities to add further input in open ended answers.

Solution support work can be split into different support tasks. Based on the business support specialists' answers, clear cases to work remotely are daily support work, key user network meetings, training of smaller developments or continuous improvement items, smaller bug fixes, and meetings which duration is three hours or less. Observing other's duties to find more efficient ways of working and workshops of more than three hours shall be organized onsite. Changes requiring larger effort and system definition workshops have equal votes for onsite and remote options. Go-live training and support could be conducted remotely. The key users agree to have daily support work, training of smaller developments, smaller bug fixes and meetings which duration is three hours or less remotely. They also agree that observing other's duties to find more efficient ways of working is a task for onsite interaction. As a difference, key user network meetings are ranked 50% onsite and 50% remotely, training for continuous release items, and go-live support should be organized onsite. Changes requiring larger effort, go-live training, and workshops over three hours have equal votes for onsite and remote options. One business support specialist describes the situation as follows in Question 6:

Almost all can be done remotely. Only longer meetings / trainings / workshops (more than half day) are better onsite to keep all focused. Also, team 1-2 day meetings are better onsite, good to see team mates face to face sometimes.

Continuing with Question 6, the interaction between the support provider and receiver is important.

For major releases (3-4 per year) and for major projects I still recommend onsite support, because couple of stakeholders and owners are affected as well; it brings more benefit and unexpected findings, when those and also the support provider and support receiver meet each other face to face.

Both onsite visits and remote collaboration have positive and negative impacts. When considering onsite visits, the business support specialists value most the possibility to engage all the participants. Then, feeling of belonging and working together is important. Few team members listed also diminishing misinterpretations and becoming acquainted better as positive impacts. Nobody ranked casual discussions as one of three main benefits or put a major emphasis on computing skills of participants.

The key users have slightly different emphasis. Engaging all participants is sharing the highest rank with becoming acquainted better. The second crucial matters are possibility to interpret other's facial expressions and diminishing misinterpretations.

When evaluating the negative impacts on travelling onsite, the business support specialists regard resource inefficiency in terms of cost and time as the worst factor. The next topics in line are inflexibility regarding meeting schedule and venue, and the fact that work tasks are piling up. Nobody points out traffic conditions. The key users are emphasizing most the long working days. The second most negative impact is resource inefficiency in terms of cost and time. The main benefits for remote collaboration for the business support specialists are resource efficiency in terms of costs and time and the flexibility regarding meeting schedule and venue. The key users are agreeing with the statements, and they additionally raise up the possibility to work normal hours. The most obvious negative impact on remote collaboration for the business support specialists is the challenge to keep participants engaged. The other visible elements are impossibility to interpret others' facial expressions and technical challenges such as network connection. The key users are missing the casual discussions most. Then the other main negative impacts for them are no feeling of belonging or working together, and learning to know the others better is impossible.

According to the business support specialists, the usual reason to organize onsite support is to organize a workshop. The other possibilities are to organize a training or to maintain relationships with the users to be supported. Two out of six respondents consider that they have travelled onsite several times due to some unnecessary events that could have been carried out online. The key users state that the usual reason to receive onsite support is to maintain relationships with the support team. The other listed opportunities are to organize a workshop or to attend in a testing session. One out of four respondents consider that they have travelled onsite several times due to some unnecessary events that could have been carried out online.

To travel cost-efficiently and economically, the business support specialists are double-checking whether the matter could be handled remotely in a first place and then they schedule the days carefully in advance and plan an agenda to gain full benefit. In addition to these, the key users are mentioning avoiding one day trips and booking

itinerary well in advance for cheaper options. 50% of the business support specialists were satisfied with the number of support trips before the pandemic, and the other half was not. Open-ended answer in Question 18 describes the situation more.

Before the pandemic, the number of trips was too high. Lot of the trips are useful and required, but few or some of them aren't. The balance should have been better.

When comparing to the key users, three out of four key users were satisfied and only one was not.

When considering the future visits, UPM's respondents have uniform opinions. Nobody mentions that each support team member should visit each site roughly once a year or someone from support team should visit each site roughly once a year. 50% of the business support specialists contemplate that they will request or organize a visit on a need basis. The other half thinks that current collaboration tools are supporting well and the need for support visits is decreasing. From the key users, one states that they will request or organize a visit on a need basis, and the majority three out of four selected current collaboration tools are supporting well and the need for support visits is decreasing.

50% of the UPM's respondents have experienced troubles, feeling of failing or frustration at work due to decreased support team visits, and the other 50% have a deviating opinion. Based on the open-ended answers, many of the team members feel they can work more efficiently remotely. It is also recognized that all work activities are completed without any visits. On the other side, people are missing cooperation and working together with colleagues. UPM's teams are extensively utilizing various methods to conduct a successful remote support. Process maps or descriptions, user instructions, ticketing tool, Teams groups and calls, local documentation, and closest colleagues as support methods are all frequently or sometimes used. Standard operating procedures, frequently asked questions, or training videos are less or not at all used items. The next chapter continues the data collection and presents the results of Wipak's managing director interviews.

7.5 Interview on Wipak's managing directors

The managing director interviews on 10 interviewees were conducted as one-to-one discussions in Teams, as an Internet-mediated face-to-face interview. The approach was non-standardized and semi-structured interview. There were pre-defined main themes and questions for reliable result comparison, but each discussion was treated as unique in order not to omit innovative and contemporary angles. The themes were related to the organizational culture, its intensity and integration, the solution expert team's role and tasks, the importance of physical presence, ways of interaction and finally to cost efficiency aspects. The interview content with the themes and questions is presented in Appendix 4. It became clear during the interviews that the results reached the saturation point, and the main themes could be generalized. Data saturation is reached, when the new samples supply only little new information or no new topics appear (Saunders et al., 2019, p. 315). The interviewees will remain anonymous, and the results will be reported as a coherent point of view from Wipak's managing directors including probable confrontational perspectives.

Organizational culture is a foundation of an organization as described in Chapter 5.3. The way how people are behaving, working, and tolerating norms is derived from this basic cornerstone. Another fundamental part is the overall management style, with common mission and vision, where the company should be heading to. Finally, the business is run by individuals with their behavior, needs and desires flavored with the national culture. These principles have a direct impact also on the support work. Based on the interviews, the general opinion is that Wipak has a strong and united culture on a higher level. The organization works together towards the mission and vision to become carbon neutral by 2025. This intensity can also be found for instance in the meetings, where the teams feel that they are a part of the Wipak family sharing common values. People are working closely with each other regardless the physical distance created by the pandemic. If investigating the matter deeper, the strong, national sub-cultures are emerging in terms of different ways of working and being accountable only for the result or the benefit of the own business unit. Some interviewees brought up that Wipak is a conglomerate, consisting of several independent companies that joined the group through acquisitions. Acquisitions are

always challenging as both the buyer's and the seller's culture should be respected. The strong sub-cultures can also be recognized in a way, how differently units are serving the customers. Wipak is targeting to be one and harmonized company, but the truth is that it consists of several strong and independent business units without leveraging the power of the entire group. One angle of this topic is the power relationships between the factories. Smaller factories feel that bigger factories determine the pace, for example in terms of the harmonized processes, and their special requirements are not implemented. It can always be argued, which one is the correct solution harmonizing or de-centralizing.

The common opinion of the future state is that Wipak should persistently still strive for the one Wipak culture with harmonized processes. One interviewee appropriately summed up the desired state concisely in Question 2:

People have to understand that they play a role in the local success, but also at the end overall in the group success.

The other one continued:

Transformation is about moving from a hierarchical culture to a network culture.

The key is that people are working together, which is also one of Wipak's values. People can work on several different topics, but they are yet always connected as people. With too strong hierarchies, values such as trust and innovation are not enabled. However, all should be well balanced, as common ways of working cannot be achieved without discipline, clear roles and responsibilities, and management support. Based on the interviews, Wipak's strategy to become carbon neutral by 2025 is a considerable common target, which is utterly supported by the top management. It might be one enabler to reach more integrated organizational culture.

Most of the interviewees were satisfied with the daily support that the solution expert team offers. Nevertheless, the support is very reactive, whereas more proactive service would be required. Managing directors do not have a visibility or a potential to influence on the open items that the team is working on and more information sharing on development progress is expected. Additionally, open and transparent communication on probable delays and overall priority determination is required. It is plainly pointed out that the solution expert team and the whole Wipak's business

support must improve the communication and work closer to the business cherishing one of the company values called together. It is also recognized that the communication is a two-way stream and sometimes also the management should be able to provide more clear guidance. A related quote from Question 9:

The key is the communication and trying to find a compromise and understand each other and support each other.

When evaluating the level of interaction, it is often difficult to draw a straightforward line, when to carry out certain tasks remotely or onsite. Managing directors consider that daily support, simple tasks, and specific trainings concentrating on routine processes can be handled online. Basically, several topics can be conducted in online sessions, as the whole organization has tremendously learnt new remote working skills due to the pandemic. On the other hand, sensitive items such as definition fit-gap workshops, go-live training or go-live support for any bigger changes, system upgrades or trickier topics shall be organized onsite. In these cases, it is extremely important to observe face-to-face, how the message is being received and to build relationships with the local teams. When reflecting on training situations, language can be one barrier and confirming the understanding is easier face-to-face. Further, for instance definition workshops or go-live support events should be held onsite, as change management requires persuasion, facilitation, and collaboration with different local teams. Generally, when the aim is to strongly influence on people, it is more efficient to interact face-to-face. When a process or system change involves onsite activities, it is also crucial to walk through all the operations physically to reach the mutual understanding. It is commonly acknowledged that travelling requests should be critically evaluated in terms of cost and resource efficiency, safety, and sustainability matters. However, people desire face-to-face interaction every now and then. When a relationship with trust is properly built on a personal level onsite, it is smoother to continue online.

When considering the need for face-to-face factory visits, 50% of the managing directors are in favor of internal audit typed collaboration visits. They recognize that the solution experts are in an interesting position having a visibility on each Wipak's manufacturing site, which allows thorough benchmarking towards harmonized template processes and the global best practices. These 50% also appreciate that the

solution experts would observe the local operators and based on the shadowing results guide them towards the best practice processes by sharing the global experience. The other 50% of the interviewees find on-demand-based, hybrid support model as the future way of working. This would stand for the assumption that the sites would state visit requirements if any and the rest of activities would occur online. Often the support work related resources are estimated only from the support team's side. However, it is vital to recall that a site visit reserves also local resources. Consequently, all the site visits must be carefully coordinated by aligning the local organization's and the support team's priorities.

As a substantial share of interaction will happen online due to the pandemic and it can be assumed the same continues in the future, it is beneficial to list elements for a successful online meeting, training, or workshop. The first point to review is, whether to have the meeting online or onsite. One decision milestone is often the duration. Three of the respondents think that simple meetings should be shorter than three hours. With a good preparation and pre-reading in advance, the actual meeting and collaboration time can be shorter. Three of the respondents contemplate that the maximum meeting duration is from three to four hours. After three hours or even earlier, people lose their attention and start to read emails and do something else. Additionally, language skills and age can impact on the participation experience. It is easier for fluent speakers to stay focused. Similarly, younger people are used to study and spend some time online, which might be very overwhelming for older participants. Six of the interviewees consider that meetings, trainings, or workshops are not time, but topic and content bound. The event can last even up to eight hours, when it is properly and interactively managed with efficient preparation tasks and scheduled breaks. When the topic is not complex and it does not require physical process observation to travel onsite, the managing directors prefer to save the resources and choose the online meeting.

A successful online meeting, training or workshop is planned with a clear agenda and well-defined list of participants. Participants must be aware, why their contribution is required to this specific meeting. One interviewee described inefficient meeting invitation practices with a compelling metaphor, where inviting unnecessary people into meetings is similar to the usual misuse of CC field in the emails. People add as

many recipients as possible without considering the value and efficiency. Further, an efficient meeting has a pre-reading to engage participants already in the invitation. During events, cameras must be on, and participants could be activated with short check-in questions for example with Teams questionnaires or simply by utilizing the around the table method. One way to engage participants and ensure that everyone contributes at least little is to collect expectations before a meeting and finally to collect feedback after a meeting. Based on the feedback, meetings shall be adjusted and improved for a better experience next time. Recording meeting notes is recommended. When considering only trainings, the solution experts should expand the service offering and create more training videos. A lecture-oriented training with less interaction would be the most efficient package as a self-learning material without time or venue restrictions.

One of the targets in this research was to find out common variables in the solution support work to create an official service offer for the manufacturing sites. The managing directors were asked whether a service meeting between Wipak's business support and the manufacturing sites would be worthwhile to be initiated. Here, service meeting would be comparable to the system consultancy manners where external consultants are regularly having status meetings with their customers. A meeting, where all the open items would be walked through, the progress would be verified, and all the worries and success stories would be presented. Seven out of 10 managing directors are in favor of service meetings. They expect more transparency and interaction around the topics that the whole business support organization is handling. Three out of 10 managing directors do not regard service meetings as useful. They trust that their local key users are informed about the ongoing matters. Service meetings or rather status meetings could take place in project work or on demand basis.

Travelling costs of the solution experts are overhead costs and they belong to Wipak Group's cost center under general and administration expenses (G&A). G&A costs are charged from the Group via group management fees, which are allocated to each manufacturing site based on 50% sales and 50% tied capital quota. The current way of sharing costs was discussed with the managing directors. Seven out of 10 interviewees feel that the current model is feasible. The support teams should be constantly working on global matters that are benefiting the whole organization. Sharing costs is also

promoting the initiative of the centralized and common culture. They also contemplated that the need to pay for a service might lead in saving in wrong items and deciding not to utilize the service at all. It is anyway understood that bigger, site-specific projects are subject to extra charges. Further, three of 10 respondents perceive that each factory should pay for the service they receive, and it should not be shared within the whole group. The arguments are that it is normal to pay for the purchased service and it is not fair that smaller production units are debited for the service that the bigger ones are using. The following chapter will continue with the research results by enlightening travelling in terms of quantitative analysis on travelling costs and carbon dioxide emissions from 2019 to 2020.

7.6 Analysis on travelling costs and carbon dioxide emissions

The quantitative, secondary data of this research consists of Wipak Group's travelling costs and carbon dioxide emissions from 2019 to 2020. Numerical data is a vital part of performance management considering cost efficiency and sustainability. Year 2019 was the last usual travelling period before the pandemic thus it will be used as a basis for destination country comparisons and more thorough analysis. The solution expert team started the SAP roll-out project preparations at Italy's manufacturing unit, which caused a visible travelling peak. 2020 was already different, as all the travelling activities stopped in early March, and some amount of travelling costs were emerged from cancelled flights. 2021 had anymore only few business trips and it cannot be reliably compared to 2019. The main travel expense types are airfare, hotel, daily allowance, rental car, personal car mileage, public transport, agency booking fees, road tolls, parking, taxi, currency exchange fees, and other travel expenses. In this research, rental car expenses include fuel and hotel expenses are combined with breakfast. Other travel expenses contain other travel related costs such as minor catering at the project office, visa fees, or online fees.

The travel expenses in the solution expert team were 108 564 euros in 2019. Figure 13 describes the cost distribution per expense type. The three biggest expense items are airfare 32%, hotel 27%, and daily allowance 21%. The next considerable cost types are rental car 9% and personal car mileage 8%.

Travel Expenses 2019

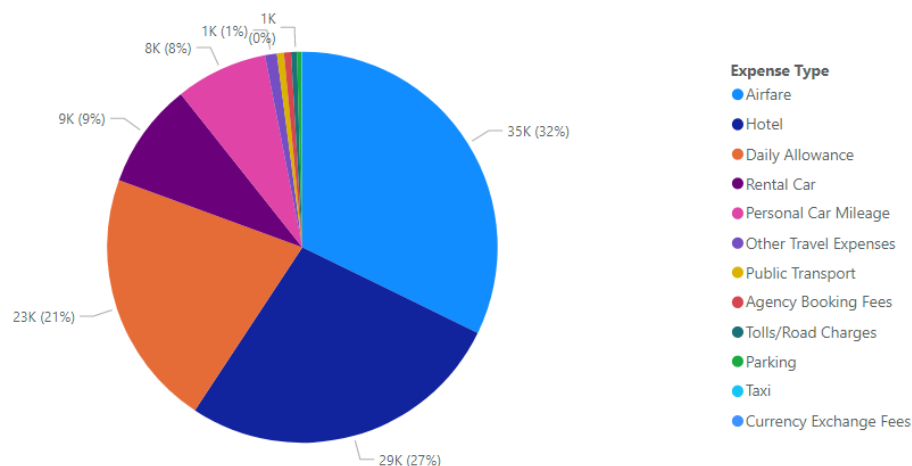


Figure 13. Travel expenses in the solution expert team in 2019

In 2019, the solution experts travelled 465 days within 120 business trips in total, where each business trip cost 905 euros, and one day 233 euros on average. The average number of travelling days for one solution expert was 58, where the highest resulted to 92, and the lowest to 20. When there are approximately 21 working days in a month, the average travelling days equal almost three months of travelling time.

Table 1 shows, how most of the business trips were related to Italy due to the roll-out preparations. Germany has always been the general collaboration and project work location hence it is in the second place. In 2019, each manufacturing unit received at least one visit. N/A stands for travel expense reports that did not lead to a physical travelling such as cancelled flights. Although Spain is excluded, one team member did pay a visit there to organize a training to support group-level process handling, yet it is visible in the costs of 2019. When conducting some cost comparison, German and Polish team locations are treated together as they are based on a similar travelling cost structure.

Table 1. Total costs by country of destination in 2019

Country of Destination	Total Cost
Italy	56 386,49
Germany	20 917,50
Finland	9 845,92
France	7 405,82
China	6 088,75
The United Kingdom	3 406,12
The Netherlands	2 294,53
N/A	819,06
Poland	723,77
Spain	675,72
Total	108 563,68

Finland is the third-most project work and collaboration location, so next the research will compare travel expenses for the team to Finland or to Germany. In case the German and Polish team members travel to Finland, the average business trip cost is 744 euros. In case the Finnish and Polish team travels to Germany, the average business trip cost results to 1078 euros. As Italy was a major destination, also its unit costs should be compared. When the German and Polish team members travelled to Italy, the average cost for a business trip was 967 euros and the same for the Finnish team was 1344 euros.

Table 2. Total travel expenses by country of destination, trip, and travel day in 2019

	From Finland		From Germany and Poland	
	Business Trip	Travel Day	Business Trip	Travel Day
Italy	1 344 €	269 €	967 €	191 €
Germany	1 137 €	260 €	453 €	151 €
Finland	185 €	166 €	744 €	209 €
France	1 286 €	275 €	592 €	137 €
The Netherlands	1 361 €	340 €	934 €	233 €
The United Kingdom	1 135 €	284 €		
China	3 044 €	304 €		
Poland	724 €	145 €		

Table 2 presents the destination countries of the solution expert team by the average expense per business trip or travel day. Naturally, the domestic travelling is the cheapest option. The Polish team usually travels by own cars from Poland to Germany, which is visible in the business trip expenses from Germany and Poland. Overall,

travelling from Finland is more expensive than travelling from Germany and Poland. Finland is more expensive country than Germany and Poland, and the daily allowance policy is more generous for employee, which is visible in the cost structure. When travelling from Finland, the most economical option is Poland and the most expensive is China. The other destinations in the middle are rather similar. Business trip cost-wise Germany and the United Kingdom are the second economical ones after Poland, if comparing costs per travel day, then Germany and Italy are in the second place. From Germany, it is affordable to travel to Poland, the Netherlands or France, as the trip can be carried out by a car. The only trip to the Netherlands from Germany or Poland area was originated from Poland, so in that case it was operated by air. The most expensive location from Germany or Poland is Italy, the second expensive is Finland.

To complement the statements regarding daily allowances, in 2019 the daily allowance to Italy from Finland was 66 euros (Vero, 2018), from Germany 40 euros (Verpflegungsmehraufwand, 2019), and from Poland 48 euros (Poradnik Przedsiębiorcy, 2019). If Finns are travelling to Germany, the allowance is 66 euros (Vero, 2018), the same for Poland to Germany is 49 euros (Poradnik Przedsiębiorcy, 2019). When Germans are travelling to Finland, they are entitled to 50 euros (Verpflegungsmehraufwand, 2019), and from Poland to Finland is 48 euros (Poradnik Przedsiębiorcy, 2019). The daily allowance is of course subject to reductions based on meals offered by the company or shorter travelling time.

2020 was already the first year with the pandemic, thus it cannot be anymore analyzed as thoroughly as 2019. The travelling stopped in early March. In 2020, the solution experts travelled 187 days within 56 business trips in total, where each business trip cost 818 euros, and one day 245 euros on average. The average number of travelling days for one solution expert was 23, where the highest resulted to 34, and the lowest to 18. This means that everyone travelled approximately one month, which corresponds to half of the time span. The total travel expenses in the solution expert team were 45 794 euros in 2020. The cost structure per expense type of year 2020 was similar to 2019. The destinations were Italy, Finland, Germany, and the United Kingdom. Due to the heavy roll-out preparations in Italy, 72% of the business trip costs are related to that. 5% of the expenses are already for flight cancellations due to

the pandemic. The next years will show, how the cost structure changes. For instance, a probable increase in domestic business trips will remarkably impact on the shares.

When the solution experts are travelling, the business trip usually starts on Monday and ends on Friday. The team prefers to stay onsite for one week to gain efficiency in terms of costs and personal well-being. When the duration is minimum from three to four days, the return flight is more affordable. Short trips are also exhausting due to health matters, as then in a worst case the travelling time exceeds the actual onsite time. According to Table 2, travel day to China is not extremely expensive compared to the others. This is caused by the length of the business trip. When travelling to China, the onsite time is normally longer as it is not efficient to travel over the continent for a couple of days only. Generally, it is more expensive to travel from Finland than from Germany or Poland. When travelling from Finland, it always requires flying in addition to own car and rental car. Further, Finnish daily allowance policy is more generous than in Germany and Poland. When travelling from Germany or Poland, few destinations can be reached without flying. For instance, the German colleagues usually drive to the Netherlands, France or Poland, and the Polish team drives to Germany.

Each team member has natural preferred destinations. For example, travelling to China takes time and due to the time difference, it is even more exhausting than usually. It is natural that this destination is avoided. Some destinations such as Italy requires a connecting flight from Germany or Poland, which prolongs the travelling time. Also, from Finland, the flight time is already slightly longer to Italy than to countries in Central Europe. However, when there is a justified need such as a roll-out project, the team travels and Italy is a good example of that. The Finnish part of the team is travelling slightly more than the Germans and the Poles. Each solution expert has own area of responsibility and by chance also three of the Finnish team are supporting shopfloor solutions, where often observing possibilities are necessary for a successful guidance.

The decreased travelling is also presumably visible in the carbon dioxide emissions. While studying the secondary data, it was found out that Wipak's carbon dioxide emissions are calculated on a factory and mode of transportation level thus it is

impossible to pull team related information. Due to this, the flying related carbon dioxide emissions of this research were calculated based on the travel expense reports and an online calculator. The utilized online calculator was a calculator provided by Carbon Footprint. The first analyzed factor was flight emissions. The calculator defines the emissions based on distances, seat class, flight route estimates. The distances are calculated by the greater circle method between the selected airports. It is possible to add a stop-over. The calculation considers, whether the flight is short or long haul, or is the ticket class economy or business class. The factors are compensating the flight routes by estimating that the direct route is not always the most feasible. The figures include radiative forcing factor, which denotes emissions from planes at high altitudes, as their influence on climate change is bigger than compared to ground level. (Carbon Footprint, n.d.)

Table 3 presents carbon dioxide emissions for the solution expert team's flights in 2019. The total emissions are 39 040 kilograms. The table shows business trips based on the departure and destination country, emissions per one round trip, round trips per destination, and total carbon dioxide emissions per the destination. The average carbon footprint of one solution expert based on flights is 4 880 kilograms. The departure country specific average values are 4 890 kilograms for Poland, 1 660 kilograms for Germany, and 7 293 kilograms for Finland. As a comparison, according to Our World in Data statistics per capita CO₂ emissions from aviation and tourism in 2018 for Finland is 999,91 kilograms, for Poland 44,78 kilograms, and for Germany 711,68 kilograms (Our World in Data, 2018).

Table 3. Carbon dioxide emissions for business trip flights in 2019

Carbon dioxide emissions for business trip flights in 2019				
Departure country	Destination country	Trips	CO2 KG / One trip	CO2 Total KG
Germany	Italy	12	250	3000
Germany	Finland	6	330	1980
Finland	Italy	29	550	15950
Finland	Germany	16	330	5280
Finland	China	2	2080	4160
Finland	France	3	460	1380
Finland	The United Kingdom	3	550	1650
Finland	The Netherlands	1	420	420
Finland	Poland	1	330	330
Poland	Italy	6	410	2460
Poland	Finland	3	350	1050
Poland	The Netherlands	1	360	360
Poland	Spain	1	610	610
Poland	France	1	410	410
			Total	39040

In 2020, the solution expert team's carbon dioxide emissions for business flights were 15 620 kilograms, leading to 1 953 kilograms on average per one solution expert. The figure is 40% smaller than in 2019. Interestingly, when calculating the same regarding travel expenses, the travel expenses in 2020 were 42% smaller. As the air fare is approximately 33% of the travelling expenses, and flying is obviously causing most of the carbon dioxide emissions, the figures can be assumed to be linear. Figure 15 describes business travelling emissions by mode of transport at Wipak in 2019. This higher-level benchmark is pulled from Wipak's own carbon dioxide emission database. The emissions are calculated for the factories in Finland, Germany and Poland based on the solution expert locations.

Business travelling emissions by mode of transport

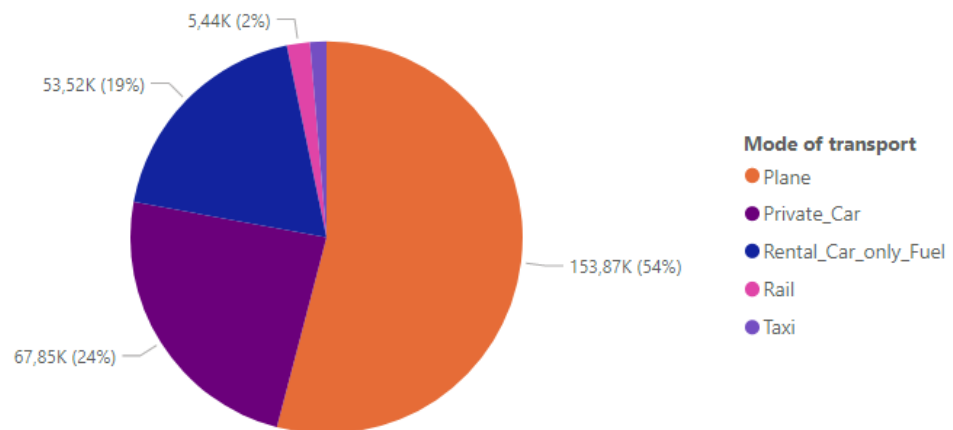


Figure 15. Business travelling emissions by mode of transport in Finland, Germany, and Poland in 2019

Further emission details for the solution expert team in 2019 can be estimated based on the flight emissions calculated from the travel expense details and derived from the shares in Figure 15. If 39 040 kilograms equals 54% for the flights, then 24% for the private car usage is 17 351 kilograms, and 19% for the rental cars is 13 736 kilograms. As a conclusion, the total business travelling emissions in 2019 for the solution expert team was 72 296 kilograms. The following chapter will wrap up all the research results of this thesis.

8 RESEARCH RESULTS AND ANALYSIS

This chapter analyses the research results based on the data collection presented in the previous Chapter 7 Research Process. Further, it provides answers to the research questions through the research results and substantiated by the literature review. The research results consist of Wipak's solution expert and key user surveys, the benchmark survey with UPM Communication Papers, the interviews on Wipak's managing directors, and the secondary data collected from Wipak's database regarding travel expenses and carbon dioxide emissions. One variable is Hofstede's cultural dimensions. The research results are followed by a reliability and ethical analysis.

8.1 Research results

Organizational culture, national culture, individuals with their personalities, behavior, personal needs, targets, and experience are influencing on the support work. The interaction is reciprocal from the support team to the business users and from the users towards the support team. The support work can be reviewed through an Interaction model, which is presented in Figure 16. It has features from Håkansson's and Industrial Marketing and Purchasing Group's (IMP) Interaction Model between buyers and sellers. Business support work is similar as the influencing parties are internal customers and vendors of one organization. It consists of various interaction streams, which are social relationships, power relationships, level of collaboration, mutual expectations, and information sharing. This research has focused on key users' and end users' cultural background and related behavior, but it should also be regarded that the support team has own cultural features, behavior, and expectations that are impacting on the interaction and relationship. Team level characteristics can be different to individual ones as a team is a powerful unit formed by unique individuals.

Each interactive party has needs and targets, which are resulting from corporate strategy, management, organization's mission and vision, corporate values, organizational culture, and structure accompanied with key performance indicators. Additionally, team's and individual's capabilities relate to IT infrastructure, level of

process harmonization, and former experience. Certainly, capabilities can also be connected to organization structure, management, and strategy.

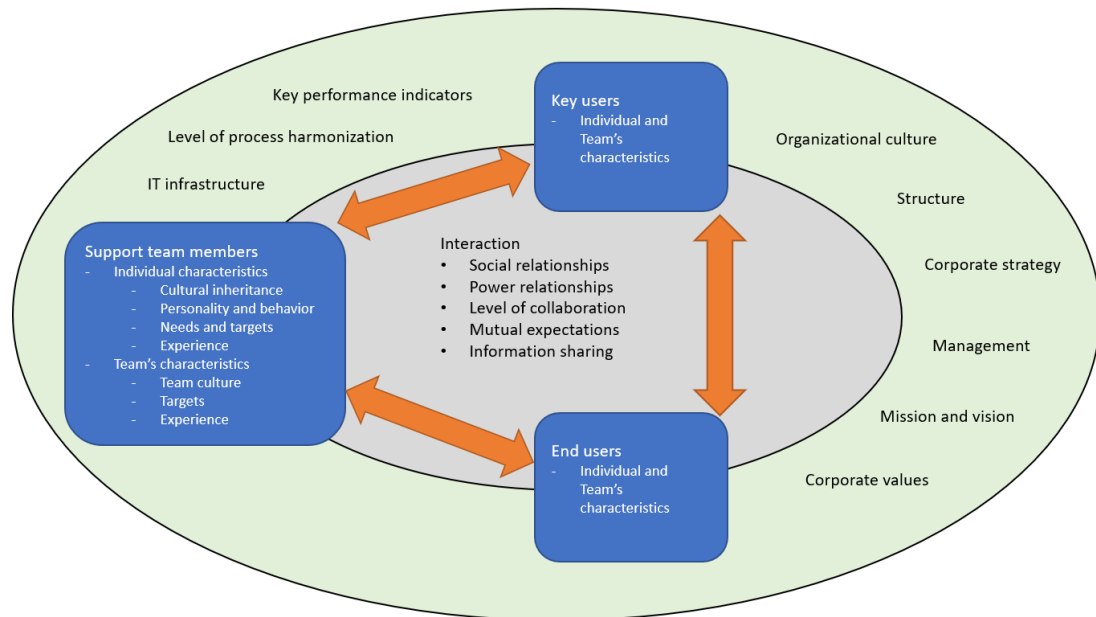


Figure 16. Interaction Model in international support work (Inspired by Håkansson et al., 2009, p. 66.)

The foundation of the support work lies in the organizational culture, which is strong and united on a higher level at Wipak. However, the strong national sub-cultures are emerging in terms of different ways of working and being accountable only for the result or the benefit of the own business unit. This leads to the inevitable fact that each manufacturing unit has own requirements, own process variations, and they must be supported considering their special features. Key users are a great local asset, but it must be noticed that they are heavily impacted by the local sub-cultures in addition to their own values, beliefs, and behavior. Open communication, transparency, information sharing, and proactive support are crucial factors that Wipak's business management is expecting from the solution support service.

The main research question was: *How to produce Wipak Group's solution support services efficiently and economically by fulfilling support requests without compromising the sustainable future?* The proposal for the future support model is a hybrid model, where most of the tasks are carried out online, but sensitive items such as definition fit-gap workshops, go-live trainings or go-live support for any bigger changes, system upgrades or trickier topics shall be organized onsite. Hybrid model would also mean that at least half of the previous teamwork related trips such as testing

events together are organized remotely. It regards that face-to-face interaction is important and efficient, but it also considers cost-efficiency, environmental impact, and employee well-being. By combining the idea of hybrid model and the costs from 2019, it can be estimated that the yearly travel expenses in the solution expert team would be 58 282 euros. This amount can be split into airfare on average 33%, hotel 26%, daily allowance 21%, rental car 10%, and personal car mileage 7%. The average travelling days would be 233 days within 60 business trips in total, for one solution expert roughly 29 days. As the solution areas are quite different in terms of onsite support requirements, the realized travelling days for some solution experts can be overly smaller than the average. When the organization becomes more familiar with the hybrid model and constantly learns new procedures, it can be assumed that the estimated travelling days will still decrease within the next years. Further, it can be anticipated that the current situation in the world will increase the estimated expenses.

In terms of carbon dioxide emissions in flying, the hybrid model would stand for 19 520 kilograms per year for the solution expert team. In this scenario, the carbon footprint of one team member would be 2 440 kilograms, which is still a considerably high amount. To reach closer figures on the average carbon dioxide footprint of the solution expert countries, the carbon footprint of one team member should be roughly 1 000 kilograms. This would signify slicing the estimated hybrid model state even once more by half, equaling total emissions less than 10 000 kilograms per year.

Sustainability is often understood as environmental matters, but the concept emphasizes economic matters, employee well-being, and safety as well. For the successful deployment of the hybrid model, remote and onsite support must be balanced. It should be understood, when physical presence is required, and how important it is. Basically, the support work must be more efficient than ever, but it shall be achieved through remote work. Therefore, the support teams must have a toolkit, how to run engaging online meetings. The additional research questions in the following paragraphs will extend the results.

The further question in the research was: *How to balance remote and onsite support?* When planning the support interaction, the possible ways are face-to-face meetings or online collaboration. Face-to-face support requires travelling, except when the solution

expert is located onsite at the manufacturing unit. Consequently, travelling causes costs, carbon dioxide emissions, and it requires time resources. When contemplating the number of trips per month, the solution experts state that twice a month or more of travelling is already immoderate. However, on a human resource level, travelling is firstly very consuming for instance due to lack of proper sleep, poor nutrition, or work tasks piling up, and secondly it exposes personnel on different safety risks. Still, when exploiting these softer and harder resources on a sensible level, employee well-being should increase due to personal contacts, feeling of success, working together, and expanding the social network. In case travelling is required, the solution experts are always assessing the travel request thoroughly and targeting the efficiency by selecting the most economical travelling methods. Designing an agenda in advance guarantees a beneficial trip.

Solution support work can be split into different support tasks. Based on the survey research results, obvious cases to work remotely are daily support work, key user network meetings, training of smaller developments or continuous improvement items, smaller bug fixes, and meetings which duration is three hours or less. On the contrary, work task shadowing, definition workshops, go-live trainings or go-live support for roll-out projects or equivalent bigger changes require onsite presence. The conventional idea has been that events, which duration is three hours or more, shall be held onsite. When benchmarking to Wipak's managing directors' ways of working, it was found that meetings, trainings, or workshops are not time, but topic and content bound. The event can last even up to eight hours, when it is properly and interactively managed with efficient preparation tasks and scheduled breaks.

The benchmark survey with UPM did not have so clear opinion on having go-live related operations onsite. UPM's business support was relying on organizing all go-live related operations online, whereas their key users wished to have go-live support onsite but go-live training had equal votes for onsite and online options. UPM has full-time key users at two biggest European factories and additionally they have competent and individual local user network, who can solve daily issues also without any key user support (Segerståhl, 2022). Organization structure and culture, key user and end user competence level, and enterprise resource planning systems' maturity can impact on the opinions. However, this finding is an attractive best practice for Wipak.

Investing in full-time, local key users for some solution areas would have an influence on the solution expert team's workload and onsite support requirements.

The set of research questions continue to the importance of physical presence. *What is the importance of physical presence nowadays?* The most fundamental positive impacts on onsite visits are feeling of belonging and working together, avoiding misinterpretations, possibility to engage all the participants, and to interpret other's facial expressions. Based on the research results, over half of Wipak's key users desire to meet support teams onsite. Wipak's managing directors' interview results confirm the survey findings. When the aim is to strongly influence on people or the topic is overly challenging, it is more efficient to interact face-to-face. Further, when a relationship with trust is properly built on a personal level onsite, it is smoother to continue online. UPM's teams were all sharing an opinion that the current remote tools are supporting well enough and the need for support visits is decreasing. Further, they will request or organize a visit on a need basis. UPM's teams have been used to remote collaboration since the beginning, and problem solving between the key users and business support works well online due to successful knowledge transfer in the key user team (Segerståhl, 2022). This finding supports the idea of verifying, whether full-time, local key users would be a solution to share the workload between the business and the solution experts.

The research questions continue by assessing: *When is physical presence required?* The usual reason to travel onsite at Wipak is to handle matters as efficiently as possible. The other probable causes are to organize a training or to support daily operations. Wipak's solution experts are often required to travel onsite to support local key users in daily operations. When comparing to UPM's benchmark survey, the results are interesting. Nobody of UPM's teams state to handle matters as efficiently as possible as a main reason to travel onsite, which was the primary motive at Wipak. According to UPM's teams, the usual reason to arrange onsite support is to organize a workshop, a training or to maintain relationships with the users to be supported. Further, UPM's teams are emphasizing maintaining relationships during business trips, as travelling for them is extremely rare (Segerståhl, 2022).

Wipak's managing directors are complementing Wipak's part of the survey results. When considering the need for face-to-face factory visits, half of the managing directors are in favor of internal audit typed collaboration visits. They also appreciate that the solution experts would observe the local operators and based on the shadowing results guide them towards the best practice processes by sharing the global experience. The other half of the interviewees find on-demand-based, hybrid support model as the future way of working. This would stand for the assumption that the sites would state visit requirements if any and the rest of activities would occur online.

As a successful remote support is a crucial part of the hybrid model, the next question to be answered is: *What are the prerequisites for professional online support?* Remote support has several advantages, but online sessions must be carefully planned to engage participants. The main benefit for remote collaboration is resource efficiency in terms of costs and time, possibility to work normal hours, flexibility regarding meeting schedule and venue, and no safety risks such as infections. Wipak's managing directors defined crucial elements in online collaboration, which shall be adopted to the toolkit of the solution experts. A successful online meeting, training or workshop is planned with a clear agenda, and well-defined list of participants. Further, an efficient meeting has a pre-reading to engage participants already in the invitation. During events, cameras must be on, and participants could be activated with short check-in questions for example with Teams questionnaires or simply by utilizing the around the table method. Recording meeting notes is recommended. Besides, the solution experts should enhance the training video library to enable asynchronous learning.

Next, more detailed best practices are searched with a question: *How to run solution support efficiently and sustainably by travelling less but to maintain the same or even better service level?* The pandemic changed the interaction significantly. However, most of the users are still satisfied with the current remote-oriented model. Remote support can be enhanced in several ways. The most utilized methods at Wipak are user instructions, ticketing tool, Teams group for key users, asking support from a fellow key user, and calling to a solution expert. Local documentation, frequently asked questions, and standard operating procedures (SOPs) are somewhat in use, but process maps or descriptions, and training videos are not that recognized. The benchmark

survey revealed that UPM is deploying remote support methods rather similarly. The only significant difference was that they use process maps or descriptions more than Wipak's key users are mentioning. Wipak's process owners should review the process maps and descriptions and promote the documentation to the business.

The final research question studies behavior further with the help of cultural elements: *How does the culture effect on the need?* Understanding national culture and cultural dimensions is an explicit advantage in the international support work. Culture is anyway mental programming of people, and it has a direct impact on values, norms, beliefs, behavior. People are exposed to national culture and organizational culture, but the innate behavior is a lot of personality related. It is anyway important to understand, how national culture is affecting on a background. It is obvious that symbols, behavior, and practices derived from a national culture can have a massive impact on vulnerable business negotiations, contract signing, or in situations, where people meet for the first time. When the relationship is already built, personality and organizational culture prevail over national culture especially in the system support work. As an example, a system go-live can be considered as meeting for the first time and in addition to the process walk-throughs, also the national culture should be analyzed to ensure the best ways of interaction and influencing.

If assessing Hofstede's cultural dimensions on the support work, some guidelines can be derived. The target is always to compare the cultures to one's own and find explanations through whether some country is relatively higher or lower in the dimensions. With power distance, it can cause differences for instance, how willing people are to consult with lower rank colleagues, are managers trusting their subordinates, or how proactive team members are. China is the only collectivistic culture at Wipak. It is vastly different compared to the solution expert team's cultures in Finland, Germany, and Poland. There can be cultural collisions, when working with more individualistic teams as they are very direct in communication. In support work, it should also be remembered that collectivistic cultures are shame cultures and losing face must be avoided. For instance, British and Dutch teams can handle direct communication, but with Chinese teams it must be gentler and more delicate. One remark regarding individualism is that Italy is scoring more exclusionist than estimated and its culture is not that open to outsiders. It can cause challenges for example in

enforcing group-level instructions and norms. It can be overall assumed that highly individualistic cultures may not be supportive for group norms and rules.

If the counterpart's culture is more masculine, it can feel slightly more aggressive with less tolerance on errors. On the other hand, representatives from more feminine cultures may seem more relationship-oriented, with readiness to negotiate and compromise. Poland, France, and Italy are uncertainty avoiding cultures. The solution experts should notice that higher uncertainty avoidance cultures often prefer timetables and structured approach with detailed objectives. Additionally, they might be hesitant towards new products, information, and technology, which can cause challenges in system trainings and rollouts. The next chapter concludes the research results by a reliability and ethical analysis.

8.2 Reliability and ethical analysis

Reliability and validity are the usual criteria of a successful research. Reliability measures consistency and whether the research results can be replicated. Validity stands for relevancy of the used measures and if they are evaluating the intended topics, correctness of the analysis, and whether the results can be generalized. Evaluation can be extended to credibility, which assesses if the research is measuring what it is expected to measure. Research data can be analyzed through validation, where one technique is triangulation. In triangulation, more than one data source and data collection methods are utilized to confirm the validity and credibility of the data, the analysis process, and finally the research results. (Saunders et al., 2019, pp. 213–215, 217–218.)

In this thesis, the research results were validated by using triangulation. More than one data source and data collections methods were in use. The primary data was collected through the surveys and interviews at Wipak Group, and one benchmark company UPM Communication Papers was involved. The secondary data regarding the travel expenses and carbon dioxide emissions was collected from Wipak's databases. The other secondary data source was Hofstede's cultural dimensions on Wipak's locations. These different data sources and collection methods formed a consistent, reliable,

valid, and credible research results. The next paragraphs will present more thorough analysis on the interviews and surveys.

The interview results must be carefully evaluated in terms of data quality, as the chosen interviewing method was non-standardized semi-structured interview. The important evaluation points are forms of bias, reliability, cultural differences, generalizability, validity, and credibility. The possible biases are interviewer, interviewee, and participation bias. The researcher must be incredibly careful and avoid impacting respondents by any non-verbal communication. Own values and beliefs can cause unconscious gestures. Additionally, interpreting interview results is a vulnerable point. Interviewees can have their own bias regarding the interviewer or the organization, which leads to interviewee and participation bias. The reliability matter can be endangered with non-standardized interviews, as also other researchers should be able to repeat the study and find the similar information. Cultural differences can cause interaction, language, and interpretation challenges. It is possible that hidden meanings are left without attention leading to wrong interpretations or non-native language fails to understand the concept. It is often assumed that interviewing a smaller audience will not produce generalizable results, but with a good gross-section of participants the sample will provide beneficial findings. Good set of questions will support validity and credibility in semi-structured interviews. (Saunders et al., 2019, pp. 447–451.)

The interviews were carefully planned with a limited set of themes and questions, and they were scheduled well in advance. The atmosphere was rather a casual discussion than a formal interview, which allowed participants to share their opinions without fear of judgement. Cultural differences and interviewee biases were visible, but the required answers were always obtained through persistent but patient question setup. It was beneficial that the researcher works with the interviewees, though it can also cause further biases on both sides. The interviewer bias was overcome by the researcher's open-minded and information-seeking attitude. It was perceived in advance that also constructive and negative feedback on the solution expert team will emerge. However, the truthful feedback was required for this thesis and the interviews were beneficial also for the researcher's future team management targets. Participation bias was avoided by scheduling the interviews well in advance so that the interviewees could reserve the required time slot. Few interviews were rescheduled to allow a

calmer moment for the discussion. The interview results were coherent and valid for the themes of this thesis. It can be assumed that no new research relevant findings were achieved after the last sessions thus the results reached the saturation. The interviews were successful in terms of reliability, validity, and credibility.

Good question design, well-defined structure, and precise pilot testing of a questionnaire correlates to validity and reliability. Reliable questionnaire means that data has been collected in a compatible manner. While validity stands for exact and explicit data that supports measuring intended research questions. It is important to consider that respondents might understand survey questions differently than the research intended. On the other hand, the researcher must be careful in interpreting answers to understand them as respondents expected. Validity in questionnaires can be divided into internal validity, content validity, criterion-related validity, and construct validity. Internal validity represents survey's capability of researching what was intended to be researched. Content validity stands for sufficient number of investigative questions. One way to establish this is a thorough literature review prior to planning survey questions. Criterion-related validity studies, whether questions can perfectly predict the intended future occasions such as any future behavior. Construct validity describes whether the set of scale items assesses topics that correlates to the research questions. (Saunders et al., 2019, pp. 516–517.)

The surveys were planned for the key users and solution experts, for support customers and support service providers. The questions were comparable for both personnel groups but including features concentrating on the particular support level and their opinions. The benchmark survey contained questions for both support levels to make it compatible for as many organizations as possible. The response rate was acceptable and provided a suitable sample. These features ensured the reliability of the survey results. The survey questions were constructed based on the research questions and literature review to reach the validity. There were questions on various angles to find sufficient amount of data considering the research result. The number of questions was anyway deliberately determined to the maximum answering time of 15 minutes. Since the researcher and most of the respondents were not native English speakers, it was highly likely that some questions were understood differently than intended. However, to mitigate this recognized risk, each question or theme of questions had an

introduction text to explain, how the respondents shall interpret the conditions. Additionally, overly difficult wording was avoided.

As a conclusion, it can be assumed that the research results meet the criteria of reliability, validity, and credibility. The surveys and interviews produced together consistent data, which confirms the reliability and generalizability. Further, the secondary data confirmed the findings of the primary data. The research results measured what they were intended to measure, and they are aligned with the research questions and literature review. These facts verify the validity and credibility of the research.

The study followed the responsible conduct of research and research integrity throughout the process. A valid thesis agreement was signed with the case company representative, and it was mutually agreed that the research will become public. No classified data was presented. Before publishing the thesis, the case company supervisor reviewed the document to confirm that the presented data can become public. The researcher is a direct supervisor of the solution expert team, but the possible conflict of interest was overcome by collecting data from the team through the survey process. On the other hand, when the researcher had a connection to the solution expert team and key users, the required and valid background information for a successful study was available. The research remained objective regardless the personal connection, and several challenges and improvement ideas were disclosed.

The surveys to the solution experts, key users, and the benchmark company were completely anonymous. It was not possible to trace the respondents' personal details, although some background questions were involved in the survey. Each survey commenced with an invitation letter to provide thorough information regarding the purpose. The interviews were recorded based on the interviewee's consent, but the identities were not revealed in the research results. The recordings and transcriptions will be deleted once the thesis is published. Finally, all the external literature that was stated by other researchers or writers, were carefully referenced. The permit for referencing the representative of the benchmark company was separately requested. The following chapter concludes this thesis and presents the final conclusions, the future plans, and suggestions for further studies.

9 CONCLUSIONS AND FUTURE PLANS

This research investigated, what is the good balance between remote and onsite support after the dramatic changes caused by Covid-19 pandemic. It provided topics worth considering to anybody working in the business world. The research results were well aligned with the theory. The research found out, in which occasions physical presence is required and when the support may be offered online. The cultural aspects, background and human's basic and social needs were taken into account. The research presented the best ways of interaction in common support situations without forgetting how to turn online events into as convenient as possible. The target to reduce carbon emissions alongside the travelling cost impact and employee safety were considered.

The research revealed in Figure 16 that the support work is a web of interactions and relationships, which is comparable to any customer-vendor relationship. When assessing the need for physical presence and balancing travelling requirements, there are more variables affecting on a background than human factors and performance management that were presented as the initial dilemma in Figure 2. It was fascinating to uncover one more theory through the surveys and interviews that had a massive impact on balancing the support work. The relationships have a history and a further network behind them, which can cause new requirements or consequences. For instance, if an external consultant cannot deliver a change request on time, it seems for the business users that the solution expert team did not perform. As a further example, the local management has issued new priorities for the users that the solution expert team is not aware of, which is also an indirect factor affecting on the support work.

One key finding was that the onsite presence is still required in the business support work. However, people have learnt vital new skills while working online and it is highly unlikely that the previous habits of travelling onsite for smallest reasons will return. When considering the balancing between human factors and performance management, a thorough chain of deductions is always required for a justified travelling request. One target of this research was to find out when onsite presence is required and to introduce a service offer for describing which kind of support requires onsite activities and which kind of support can be conducted remotely. The support

offering should be so clear that there is no need to justify possible decisions to travel or to explain handling a support request completely remotely. The research was able to differentiate traditional remote support activities and work tasks that shall be handled onsite as a guideline. Nonetheless, it is impossible to gather a list that would always be absolute without any deviations due to further variables presented in the Interaction Model of Figure 16.

The research encountered some challenges. The original plan was to validate Hofstede's cultural dimensions via surveys and to discover how the dimensions can be retrieved. However, the survey response rate per country remained so low that it was not possible to draw cultural conclusions by only relying on this data. It was decided then to treat Hofstede's study as a secondary data and bring in cultural variables directly from it. When assessing this decision afterwards, it could have been the original plan. Culture is a sensible variable, and it requires sizeable samples to produce accurate values. There are already several cultural studies available, which are sufficient as secondary data for academic research.

Another minor obstacle was the difficulty to find companies for the benchmark survey. Luckily, this research had gathered plenty of research data and theory, which enabled settling for only one benchmark company. The surveys and interviews already issued similar and congruent results and further companies would have been valuable especially in the benchmarking purpose. It became also clear that some answers will detect organizational differences in terms of structure, values, and targets. Due to this not all of the answers are directly valid for adapting best practices. When considering possible next research, searching for benchmark companies must be started in an earlier stage.

It was noticed in the middle of the secondary data collection that Wipak's carbon dioxide emission database cannot produce team level data. It became problematic to build coherent and comparable results in terms of travel expenses and carbon dioxide emissions as the reports were on a different level. Travel expenses can be reported on a team level, but carbon dioxide emissions are only based on a manufacturing site. This challenge was solved by utilizing an online carbon footprint calculator to find a baseline for the solution expert team's flying emissions. Travel expense database

provided destinations and routings could be estimated. The externally calculated figure was brought next to the factory level emission shares and the solution expert team level emissions were calculated based on the external figure and Wipak's factory level percentages.

One research objective was to build a list of preferred travelling locations based on lowest cost and carbon dioxide emissions. However, Table 2 revealed that the destination level cost differences are exceedingly small even when travelling to China as the trip itself is usually longer. Table 3 presented the carbon dioxide emissions per destination, which are linear in terms of the distance with some differences regarding European flights. China as a destination has the highest emissions as expected. Anyhow, onsite support will always be organized on the real need and based on objective evaluations, where the destination itself is not a key characteristic. The bigger impact was found on the departure country. Finland was the most expensive solution expert country for departures. When planning team collaboration days in the future, a good rule of thumb is to select a location, to where the minor part of the team is travelling. As five out of eight team members are located in Finland, the best option would be to organize these team days in Finland. On the other hand, it is not fair to demand the same team members to travel each time. To conclude, Finland should be the preferred teamwork location but to balance employee well-being, also Germany is still a valid option.

Although the research was successful by solving the research questions, there are always some further topics to be studied. The research theory and scope turned out to be rather broad, and basically each item in the scale of human factors and performance management could initiate a separate thesis. Travel expenses and carbon dioxide emissions could be analyzed and compared more to reveal the most efficient travelling concept. Additionally, IMP Group's Interaction Model could be adapted and studied to a greater extent in the area of solution support. This thesis did not study, how to be more present in the online meetings. As online collaboration is a crucial way of interaction, human's basic needs shall be connected to this new socializing model.

When evaluating the research in terms of the case company Wipak, several interesting and beneficial future recommendations can be drawn, which are illustrated in

Appendix 5. The research results presented the list of clear onsite and remote support tasks that can now be attached into the solution expert team's service offer. The proposal was a hybrid model, where most of the tasks are carried out online such as daily support work, key user network meetings, training of smaller developments or continuous improvement items, and smaller bug fixes. Sensitive items such as definition fit-gap workshops, go-live trainings or go-live support for any bigger changes, system upgrades or trickier topics shall be organized onsite. Further, key characteristics of a successful online meeting are available. A successful online meeting, training or workshop is planned with a clear agenda, and well-defined list of participants. It has a pre-reading to engage participants already in the invitation. During events, cameras must be on, and participants could be activated with short check-in questions for example with Teams questionnaires or simply by utilizing the around the table method. Recording meeting notes is recommended.

As the future recommendations it can be stated that physical presence is still important. It is advised to run the solution support in a hybrid model, which allows some travelling but also empowers more efficient remote interaction. Wipak's business support team should start service meetings with the manufacturing sites and review that all the user documentation is valid and updated. Video library could be enhanced to support asynchronous learning. The ongoing process harmonization project should be prioritized, as it is a vital part in forming the organizational culture. When starting any project in a new country, studying the main features of the national culture in advance should be considered as an advantage. The final recommendation is to assess, whether a full-time key user concept could be useful for the organizational structure.

If concluding this thesis with one word, the word would be Wipak's value together. Together has also been quoted by Henry Ford (Andersen, 2013):

“Coming together is a beginning, keeping together is progress, working together is success.”

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Survey for Wipak's solution experts

Dear Solution Experts,

As you have heard, I am studying Master's degree at the moment and now it is time to start data collection for my master's thesis.

My topic is: Balancing International Support Work for Sustainable Future

Research question is: How to produce Wipak Group's solution support services efficiently and economically by fulfilling support requests without compromising the sustainable future?

Shortly put, my thesis researches how solution expert team could support each factory as efficiently as possible. One crucial factor in the research dilemma is that how much we should be physically present and how much we could work online so that key users are happy and confident with their role as well. It is all about balancing remote and onsite support. We should define when physical presence is required and how important it actually is nowadays. It is visible for us all how everything is still working, yet almost all is done remotely starting from the pandemic. One interesting variable is culture, how much that impacts on this whole concept. These were now firstly the human factors in question, but as a support team, we shall consider performance, costs, and efficiency as well without forgetting our carbon neutrality requirements from the strategy and employee safety. It is not that safe anymore to travel due to pandemic – though it is never that safe due to different traffic conditions and furthermore, we are always exposed on extra stress while travelling and stress is not good eventually.

In order to find out, how you find out the support work at the moment and how we could develop it, I would like to invite you to a short survey. Additionally, I will publish one more survey to key users to find out more details from their side. Furthermore, managing directors will be interviewed to complete my data collection. The target would be of course to graduate and then to utilize these findings in creating a solution expert service offer for the sites.

Feel free to contact me, if you have any suggestions, questions or worries. Now, kindly answer a few questions. You will remain anonymous. The survey will be open until 21.01.2022.

Yours,

Piia

Your identity will be hidden.

When hidden identity is used in surveys, no identifiable information, such as browser type and version, internet IP address, operating system, or e-mail address, will be stored with the answer. This is to protect the respondent's identity.

Cultural differences on support work

The narrow scope of culture is civilization or refinement of the mind. Social anthropology defines culture as models of thinking, feeling, and behaving without forgetting basic needs such as eating, ways of revealing feelings and need for physical distance. As culture touches social environment, it is a collective experience, which is learnt together. Human nature and personality strongly correlate with culture. Human nature signifies general standpoint of human mind being common for all. It consists of basic psychological functions and basic human needs such as feeling of anger and joy and need to be part of a community. Furthermore, culture determines, how people are acting based on these feelings and needs. On top of human nature and culture, human's personality provides the final level of behavior, which is based on inherited features and learnt cultural aspects as well as on individual experiences. Cultural differences are evidence of symbols, heroes, rituals, and values. Values are the heart of culture. They are feelings with negative and positive elements with a tendency to favor one over another. Values can place for instance moral against immoral, abnormal against normal or evil against good. (Hofstede et al., 2010, pp. 16–20.)

Difficulties to find commitment to group rules										
Outsiders are not accepted in the group										
Losing face is possible										

2) What is your opinion, how much key user’s personality impacts on the support situation?

Not at all / Not so much / Indifferent / Somewhat a lot / Very much

Support Work

Consider your work as a solution expert. In which case you prefer offering onsite support and in which cases you are confident to manage topics via online collaboration? Think, which ways support your work, your personality, and your success best.

3) Which support tasks can be handled onsite and which tasks are suitable for online support? Each task must be characterized either onsite or remote task.

Task	Onsite	Remotely
Daily support		
Supporting to find more efficient ways of working, for example shadowing		
Key user network meetings		
Training for weekly release items		
Smaller bug fixes		
Configuration changes		
Training for Continuous Improvement release items		
Process changes		

New transactions		
Changes requiring larger effort		
Fit-gaps for roll-out projects or for any bigger changes		
Go-live training for a new system or bigger upgrades		
Go-live support for a new system or bigger upgrades		
Training for new process		
Meetings less than 3 hours		
Workshops more than 3 hours		

4) Please share some written examples regarding the above question. For instance, add some other support tasks on your list and rate, whether they are onsite or remote work.

Open answer

Evaluating face-to-face and remote interaction

Please consider working onsite with key users and think, which are the most important aspects for you being physically present.

5) What are the main benefits for face-to-face meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Feeling of belonging and working together
Possible to interpret others' facial expressions
Possibility to monitor and shadow physical processes
Engaging all participants
Diminishing misinterpretations

Technical challenges such as network connection are not disturbing
Casual discussions
Getting to know others better
No challenges due to poor computing skills

6) Any other benefit?

Open answer

Please consider working onsite with key users and think, which impacts are the most negative ones for you when considering travelling in order to be physically present.

7) What are the main negative impacts on face-to-face meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

Resource inefficiency in terms of costs and time
Need to stay away from family
Inflexibility regarding meeting schedule and venue
Traffic conditions
Risk of infections
Long working days
Work tasks are piling up
Negative environmental impact
Own well-being in terms of poor nutrition, troubles in sleeping, lack of exercising

8) Any other negative impacts?

Open answer

Please consider working remotely with key users and think, which are the most important aspects for you being present online.

9) What are the main benefits of remote meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Resource efficiency in terms of costs and time
Possibility to spend time with family
Flexibility regarding meeting schedule and venue
No safety risks such as traffic conditions or infections
Possibility to work normal hours
Work tasks are not piling up
No negative environmental impact
Own well-being in terms of better nutrition, good sleep, possibility to exercise

10) Any other benefit?

Open answer.

Please consider working remotely with key users and think, which impacts are the most negative ones compared to physical presence.

11) What are the main negative impacts of remote meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

No feeling of belonging and working together
Impossible to interpret others' facial expressions
Not possible to monitor or shadow daily work properly
Challenges to keep all participants engaged
High possibility on misinterpretations
Technical challenges such as network connection might be preventive
Casual discussions are missing
Learning to know the others better is impossible
Participants with poor computing skills

12) Any other negative impacts?

Open answer

Travelling

13) What is usually the main reason to travel onsite? Select three main reasons for you to travel onsite.

To organize a training
To attend on a workshop
To maintain relationships with key users
To maintain relationships with colleagues
To promote own organization and its visibility
To support daily operations

To handle matters as efficiently as possible
To attend on a testing session
I feel I have travelled onsite several times due to unnecessary meetings / workshops / trainings that could have been handled online.

14) Other reasons to travel onsite?

Open answer

15) How would you define, what is too much travelling?

I don't like to travel at all / Once or twice a year / Once in two months / Once a month / Twice a month / More than three times a month / Nothing is too much

16) Which efficiency and cost topics do you consider, when planning a visit to a factory? Select three main reasons you usually consider while travelling.

Double-checking whether the matter could be handled remotely
Selecting cheapest flights and hotels
Sharing a rental car with colleagues
Booking itinerary well in advance for cheaper options
Avoiding one day trips
Scheduling days in advance and planning an agenda to gain full benefit

17) Have you experienced troubles, feeling of failing or frustration at work due to decreased travelling?

Yes / No

18) Provide reasoning, why you answered yes or no.

Open answer

19) How often do you think that solution expert team should work together face-to-face in a year?

No face-to-face required / 1 / 2 / 3 / 4 /More than 4

20) Please provide any suggestions, how would you develop the service of solution experts.

Open answer

Survey for Wipak's key users

Dear Key Users,

Your opinions are highly valued, and this time I am contacting you to contribute to my Master's thesis data collection.

My topic is: Balancing International Support Work for Sustainable Future

Research question is: How to produce Wipak Group's solution support services efficiently and economically by fulfilling support requests without compromising the sustainable future?

Shortly put, my thesis researches how solution expert team could support each factory as efficiently as possible. One crucial factor in the research dilemma is that how much we should be physically present and how much we could work online so that you as key users are happy and confident with your role as well. It is all about balancing remote and onsite support. We should define when physical presence is required and how important it actually is nowadays. It is visible for us all how everything is still working, yet almost all is done remotely starting from the pandemic. One interesting variable is culture, how much that impacts on this whole concept.

In order to find out, how you find out the support work at the moment and how we could develop it, I would like to invite you to a short survey. Additionally, I have published a survey to solution expert team to find out more details from their side. Furthermore, managing directors will be interviewed to complete my data collection. The target would be of course to graduate and then to utilize these findings in creating a solution expert service offer for the sites.

Feel free to contact me, if you have any suggestions, questions or worries. Now, kindly answer a few questions. You will remain anonymous. The survey will be open until 28.01.2022.

Yours,

Piia

Your identity will be hidden.

When hidden identity is used in surveys, no identifiable information, such as browser type and version, internet IP address, operating system, or e-mail address, will be stored with the answer. This is to protect the respondent's identity.

Background Questions

1) What is your home factory?

Nastola
Valkeakoski
Biaxis
Walsrode
Polska
Welshpool
B.V.
Gryspeert
Bordi
China

2) How long have you worked for Wipak?

0-5 years
6-10 years
11-15 years
16-20 years
Over 20 years

3) Are you a key user?

Yes / No

Personality related evaluation

4) Which ones of these characters describe you or your team best? Select maximum four traits, which you can organize in prioritized order.

Individual and proactive
Caring and relationship-oriented
Require a lot of support from solution experts
Onsite support and working together is the best
Remote support via Teams works well
My ultimate goal is to work correctly
All new is exciting
I need clear rules so that there not too much room for interpretations
Full of emotions, talking with hands and louder voice
I am not very technology oriented.
Our factory has a strong hierarchy
Schedules are not that important
Group rules are not suitable for our factory
Outsider opinions are not accepted at our factory
Losing face is possible

Support Work

Consider your work as a key user. In which case you prefer having onsite support and in which cases you can manage with remote support? Think, which ways support your work, your personality, and your success best.

5) Which support tasks can be handled onsite and which tasks are suitable for online support? Each task must be characterized either onsite or remote task.

Task	Onsite	Remotely	Not familiar to me
Daily support			
Supporting to find more efficient ways of working, for example shadowing			
Key user network meetings			
Training for weekly release items			
Smaller bug fixes			
Configuration changes			
Training for Continuous Improvement release items			
Process changes			
New transactions			
Changes requiring larger effort			
Fit-gaps for roll-out projects or for any bigger changes			
Go-live training for a new system or bigger upgrades			
Go-live support for a new system or bigger upgrades			
Training for new process			
Meetings less than 3 hours			
Workshops more than 3 hours			

6) Please share some written examples regarding the above question. For instance, add some other support tasks on your list and rate, whether they are onsite or remote work.

Open answer

Evaluating face-to-face and remote interaction

Please consider working onsite with solution experts and think, which are the most important aspects for you having support physically present.

7) What are the main benefits for face-to-face meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Feeling of belonging and working together
Possible to interpret others' facial expressions
Possibility to monitor and shadow physical processes
Engaging all participants
Diminishing misinterpretations
Technical challenges such as network connection are not disturbing
Casual discussions
Getting to know others better
No challenges due to poor computing skills

8) Any other benefit?

Open answer

Please consider working onsite with solution experts and think, which impacts are the most negative ones for you when considering they are onsite in order to be physically present.

9) What are the main negative impacts on face-to-face meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

Resource inefficiency in terms of costs and time
Inflexibility regarding meeting schedule and venue
Risk of infections
Long working days
Work tasks are piling up
Negative environmental impact

10) Any other negative impacts?

Open answer

Please consider working remotely with solution experts and think, which are the most important aspects for you when they are supporting you online.

11) What are the main benefits of remote meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Resource efficiency in terms of costs and time
Flexibility regarding meeting schedule and venue
No safety risks such as infections
Possibility to work normal hours

Work tasks are not piling up
No negative environmental impact

12) Any other benefit?

Open answer.

Please consider working remotely with solution experts and think, which impacts are the most negative ones compared to them being physically present.

13) What are the main negative impacts of remote meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

No feeling of belonging and working together
Impossible to interpret others' facial expressions
Support cannot monitor or shadow daily work properly
Challenges to keep all participants engaged
High possibility on misinterpretations
Technical challenges such as network connection might be preventive
Casual discussions are missing
Learning to know the others better is impossible
Participants with poor computing skills

14) Any other negative impacts?

Open answer

Evaluating the past, the present and the future ways of supporting

**15) What is usually the main reason that you wish to receive onsite support?
Select three main reasons for you to receive onsite support.**

To organize a training
To invite solution experts on a workshop
To maintain relationships with solution experts
To promote own organization
To receive hands-on support on daily operations
To handle matters as efficiently as possible

16) Were you satisfied with the number of visits from solution experts before the pandemic?

Yes / No

17) Provide reasoning, why you answered yes or no.

Open answer.

18) Which statement would best describe the future state support model after the pandemic? Only one can be selected.

Each solution expert should visit each site roughly once a year.
Someone from solution expert team should visit each site roughly once a year.
Someone from Wipak Business IT should visit each site once a year and in addition to daily support, they should carry out solution relevant audit to evaluate our performance.
We will request a visit on a need basis.

Current collaboration tools are supporting well and the need for support visits is decreasing.

19) Have you experienced troubles, feeling of failing or frustration at work due to decreased travelling?

Yes / No

20) Provide reasoning, why you answered yes or no.

Open answer

Select three most important ones. In case you don't know the supportive tool, mark "not familiar to me".

21) Which items are most useful and supportive when having remote support?

Supportive tool	Frequently used	Sometimes used	Not used	Not familiar to me
Process maps or descriptions				
User instructions				
SOPs (standard operating procedures)				
Frequently asked questions				
Training videos				
Ticketing tool				
Key User Teams				
Teams call to a solution expert				
Local documentation				
Key User colleagues				

22) Any other great support items in mind?

Open answer

23) How could solution experts improve remote support in order to serve you key users as well as possible?

Open answer

Survey for a benchmark company UPM Communication Papers

Dear respondents,

I am Piia Mäkinen, a team lead for Wipak's solution expert team, which belongs to Wipak's Business Support organization. Additionally, I study Master's degree in Business Management at Satakunta University of Applied Sciences. Your organization has been willing to support my Master's Thesis data collection regarding support work. My target is to benchmark Wipak's survey results to other companies having similar Business Support setup. You receive this survey, as you are working in a business support organization of your company as a key user, solution expert, system specialist or under any equivalent title.

My topic is: Balancing International Support Work for Sustainable Future

Research question is: How to produce Wipak Group's solution support services efficiently and economically by fulfilling support requests without compromising the sustainable future?

Shortly put, my thesis researches how solution expert team or any support team could support internal customers such as manufacturing sites as efficiently as possible. One crucial factor in the research dilemma is that how much we should be physically present and how much we could work online so that key users or end users are happy and confident with their role as well. It is all about balancing remote and onsite support. We should define when physical presence is required and how important it actually is nowadays. It is visible for us all how everything is still working, yet almost all is done remotely starting from the pandemic. One interesting variable is culture, how much that impacts on this whole concept.

In order to find out, how you see the support work at the moment and how support organizations could develop it, I would like to invite you to a short survey. Wipak's solution experts and key users have already answered in a similar survey and the target is to confirm the results with your answers and point of views.

Feel free to contact me, if you have any suggestions, questions or worries. Now, kindly answer a few questions. You will remain anonymous. The survey will be open until 25.03.2022.

Yours,

Piia Mäkinen

piia.makinen@wipak.com

Wipak Group

Your identity will be hidden.

When hidden identity is used in surveys, no identifiable information, such as browser type and version, internet IP address, operating system, or e-mail address, will be stored with the answer. This is to protect the respondent's identity.

Background Questions

1) What is your nationality?

Finnish
German
Polish
British
Dutch
French
Italian
Chinese
Other

2) How long have you worked for your company?

0-5 years
6-10 years
11-15 years
16-20 years
Over 20 years

3) What is your role or organization?

Key User
End User
Solution Expert / Owner, Configuration Owner, Concept Owner
Business Support
Other

Personality related evaluation

4) Which ones of these characters describe you or your team best? Select maximum four traits, which you can organize in prioritized order.

Individual and proactive
Caring and relationship-oriented
Require a lot of support from solution specialists
Onsite support and working together is the best
Remote support via Teams works well
My ultimate goal is to work correctly
All new is exciting
I need clear rules so that there not too much room for interpretations

Full of emotions, talking with hands and louder voice
I am not very technology oriented.
Our unit has a strong hierarchy
Schedules are not that important
Group rules are not suitable for our unit
Outsider opinions are not accepted at our unit
Losing face is possible

Support Work

Consider your work as a support provider or support receiver. In which case you prefer onsite support and in which cases you can manage with remote support? Think, which ways contributes to your work, your personality, and your success best.

5) Which support tasks can be handled onsite and which tasks are suitable for online support? Each task must be characterized either onsite or remote task.

Task	Onsite	Remotely	Not familiar to me
Daily support			
Supporting to find more efficient ways of working, for example shadowing			
Key user network meetings			
Training for weekly release items			
Smaller bug fixes			
Configuration changes			
Training for Continuous Improvement release items			
Process changes			
New transactions			
Changes requiring larger effort			

Fit-gaps for roll-out projects or for any bigger changes			
Go-live training for a new system or bigger upgrades			
Go-live support for a new system or bigger upgrades			
Training for new process			
Meetings less than 3 hours			
Workshops more than 3 hours			

6) Please share some written examples regarding the above question. For instance, add some other support tasks on your list and rate, whether they are onsite or remote work.

Open answer

Evaluating face-to-face and remote interaction

Please consider working onsite and think, which are the most important aspects for you being physically present.

7) What are the main benefits for face-to-face meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Feeling of belonging and working together
Possible to interpret others' facial expressions
Possibility to monitor and shadow physical processes
Engaging all participants
Diminishing misinterpretations
Technical challenges such as network connection are not disturbing

Casual discussions
Getting to know others better
No challenges due to poor computing skills

8) Any other benefit?

Open answer

Please consider working onsite and think, which impacts are the most negative ones for you when considering being onsite in order to be physically present.

9) What are the main negative impacts on face-to-face meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

Resource inefficiency in terms of costs and time
Need to stay away from family
Inflexibility regarding meeting schedule and venue
Traffic conditions
Risk of infections
Long working days
Work tasks are piling up
Negative environmental impact
Own well-being in terms of poor nutrition, troubles in sleeping, lack of exercising

10) Any other negative impacts?

Open answer

Please consider working remotely and think, which are the most important aspects for you supporting or being supported online.

11) What are the main benefits of remote meetings, workshops, or trainings? Drag and drop three most important benefits and put them in your order of priority.

Resource efficiency in terms of costs and time
Possibility to spend time with family
Flexibility regarding meeting schedule and venue
No safety risks such as traffic conditions or infections
Possibility to work normal hours
Work tasks are not piling up
No negative environmental impact
Own well-being in terms of better nutrition, good sleep, possibility to exercise

12) Any other benefit?

Open answer.

Please consider working remotely and think, which impacts are the most negative ones compared to being physically present.

13) What are the main negative impacts of remote meetings, workshops, or trainings? Drag and drop three most negative impacts and put them in your order of priority.

No feeling of belonging and working together
Impossible to interpret others' facial expressions
Not possible to monitor or shadow daily work properly
Challenges to keep all participants engaged
High possibility on misinterpretations
Technical challenges such as network connection might be preventive
Casual discussions are missing
Learning to know the others better is impossible
Participants with poor computing skills

14) Any other negative impacts?

Open answer

Evaluating the past, the present and the future ways of supporting

15) What is usually the main reason that you wish to receive or organize onsite support? Select three main reasons.

To organize a training
To organize a workshop
To maintain relationships with support team or users to be supported
To promote own organization

To receive or provide hands-on support on daily operations
To handle matters as efficiently as possible
To attend on a testing session
I feel I have travelled onsite several times due to unnecessary meetings / workshops / trainings that could have been handled online.

16) Which efficiency and cost topics do you consider, when planning a visit to a factory? Select three main reasons you usually consider while travelling.

Double-checking whether the matter could be handled remotely
Selecting cheapest flights and hotels
Sharing a rental car with colleagues
Booking itinerary well in advance for cheaper options
Avoiding one day trips
Scheduling days in advance and planning an agenda to gain full benefit

17) Were you satisfied with the number of support trips before the pandemic?

Yes / No

18) Provide reasoning, why you answered yes or no.

Open answer.

19) Which statement would best describe the future state support model after the pandemic? Only one can be selected.

Each support team member should visit each site roughly once a year.
Someone from support team should visit each site roughly once a year.
We will request a visit on a need basis.
Current collaboration tools are supporting well and the need for support visits is decreasing.

20) Have you experienced troubles, feeling of failing or frustration at work due to decreased travelling?

Yes / No

21) Provide reasoning, why you answered yes or no.

Open answer

Select three most important ones. In case you don't know the supportive tool, mark "not familiar to me".

22) Which items are most useful and supportive when having remote support?

Supportive tool	Frequently used	Sometimes used	Not used	Not familiar to me
Process maps or descriptions				
User instructions				
SOPs (standard operating procedures)				
Frequently asked questions				
Training videos				
Ticketing tool				
Teams groups				
Teams call to a solution expert				
Local documentation				
Closest colleagues				

23) Any other great support items in mind?

Open answer

23) How could support teams improve remote support in order to serve key users and end users as well as possible?

Open answer

Interviews with Wipak's managing directors

Interview questions for Managing Directors (Teams interview, 45 minutes)

Interviews will be recorded with the consent of the interviewee. Transcribing feature will be used in order to produce a draft for transcription. A PowerPoint presentation will be shown to support wider questions requiring background knowledge.

Theme 1: Organizational culture

1) Is Wipak having a strong and united organizational culture? (or is each factory having own strong sub-cultures?) Please share an example.

This question is a warm-up question for upcoming discussion, seeking to reveal how integrated Wipak's organization is at the moment and is it possible to apply the same support procedures for each factory. It is also interesting to find out, how managing directors see this matter.

Culture and organization culture will be introduced before the actual question. The bolded text phrases are the crucial ones in discussion, hence these are presented in the supporting slides. The complete description is added as notes for the interviewer.

Cultural differences are evidence of symbols, heroes, rituals, and values.

Culture can be distinguished into the following layers: national, regional, gender, generation, social class, and organizational layers. National layer represents home country or previous migration countries. Regional level contains ethnic, religious and language related connections. Gender represents being male or female. Generation provides leveling between age groups of grandparents, parents, and children. Social class is derived from educational or professional paths. Organizational layer concerns employed persons, who closely belong to a work society. (Hofstede et al., 2010, p. 27.)

Organizational culture compiles common beliefs and values of its employees from current work generation to later generations (Hunger & Wheelen, 2014, p. 75). Organizational culture introduces a holistic view in an organization. **It is derived from its history without forgetting cultural symbols and rituals. Organizational culture is initiated and cherished by people and groups working together.** Organization's business network has a strong impact on shaping its culture as all involved are somehow interacting around it. These stakeholders can be for instance customers and vendors as well as any authorities. It is assumed that this kind of culture is challenging to change. **Organizational culture is more shallow than national culture, as national culture is acquired during first years of a person's life in family and at school, but organizational culture mainly consists of organization's practices.** (Hofstede et al., 2010, p. 289, 291.) **Organizational culture can be divided into intensity and integration.** Employees tolerate norms, values, and other cultural aspects to a certain extent. This is called **cultural intensity or cultural depth.** If a culture is intensive, it is highly likely that employees will start behaving in similar fashion. Cultural integration is measuring the breadth of common culture that is dispensed in different business units. It is possible that business units maintain strong subcultures, which weakens overall organizational culture. In turn, each business unit and its employees may pursue highly integrated culture with shared norms and values. Organizational culture is influencing every employee and their work behavior. (Hunger & Wheelen, 2014, p. 76.)

2) To which direction you would like to steer the organizational culture? (Which one is stronger at the units, national or organizational culture?)

Continuing the above discussion.

3) What was the trigger for Wipak's sustainability strategy?

This question is to discuss, how the strategy was initiated. It is expected that this story line will also reveal more regarding organizational culture, intensity, and integration.

Theme 2: The Solution Expert team and their role with an evaluation of the need for a physical presence

4) What are the solution experts doing in your opinion? There is no right or wrong answer in this question. This is rather measuring perceptions, and how the solution experts have succeeded in the internal communication.

The organization chart is shown here.

This question confirms that we have the same understanding on the solution expert team's role. If there are gaps in the knowledge, the interviewer will support in order to proceed. This theme can also expose possible challenges in the interaction.

5) Which support tasks can be handled remotely, which onsite? Please justify your comments.

This question lists the support tasks conducted by the solution experts. The task list is presented on the PowerPoint slide. Here, it would be discussed whether a service meeting would be supporting the future co-operation in terms of the service offer.

Daily support

Supporting to find more efficient ways of working, for example shadowing

Key user network meetings

Training for weekly release items

Smaller bug fixes

Configuration changes

Training for Continuous Improvement release items

Process changes

New transactions

Changes requiring larger effort

Fit-gaps for roll-out projects or for any bigger changes

Go-live training for a new system or bigger upgrades

Go-live support for a new system or bigger upgrades

Training for new process

Meetings less than 3 hours

Workshops more than 3 hours

Service meeting

Any other items?

Theme 3: Ways of interaction

6) Do you see it beneficial to have the solution experts or the other business support members visiting the production sites? How do you justify your answer? Was the number of visits sufficient before the pandemic?

This question looks for an answer, how highly physical presence is appreciated.

7) If support is offered online, what kind of elements you think are required for a sufficient co-operation? How to maintain convenient online support and engage all the participants?

This question may need some background description, but the aim is to find out, if for instance people prefer cameras on, how to organize ordinary trainings or workshops, and which collaboration tool possibilities such as break-out rooms should be utilized.

This also finds out; how knowledgeable Wipak's management is regarding collaboration tools.

Theme 4: Cost aspects

8) Would you be as a managing director willing to pay for the solution expert team's services? An example would be the travelling costs. Please justify your answer.

A background for a service offer, whether the solution expert team's travelling would be better justified, when costs are covered by a specific site. Basically now, each site pays something regarding travelling in the support work. Bigger units pay more. An option would be to allocate costs directly to the factory in need, but it of course increases internal invoicing bureaucracy.

At the moment, travelling costs of the solution experts are overhead costs and they belong to Wipak Group's cost center under general and administration expenses (G&A). G&A costs are charged from the Group via group management fees, which are allocated to each manufacturing site based on 50% sales and 50% tied capital quota. This way of working shares the costs within the group based on the size of each business unit.

Theme 5: Free word, how to improve the service

9) How could the solution experts improve their service?

This question should begin an open discussion to find out ways to improve the service that the solution experts are offering.

