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Assessing the Effects of Centralizing a Customer Support Organization in a Global IT Company

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Abstract

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This thesis investigates the impact that centralization has on selected Key Performance Indicators (KPIs) in the customer IT support organization of the Case Company, the Case Organization. The Case Company is a global IT consulting company that delivers consulting, digital transformation, technology and engineering services. The study concentrates on the Case Organization and the aim of it is to measure the organizational performance before and after the centralization with a selected performance management tool and KPIs. Those results are then analyzed against KPIs set by the Case Organization and that analysis is then combined with findings from a literature review and a deep expert interview conducted with the Case Organization employees to form concrete recommendations to the head of the organization on how to improve the organization going forward.

The study consists of participatory action research where the participants themselves are involved in the planning, observation and in the implementation of the associated corrective actions. The author conducts an in-depth literature review to determine the advantages and disadvantages of the performance management tool chosen by the organization and to conduct a SWOT analysis on organizational centralization. Once the centralization activities were completed by the organization, the KPI metrics from the Balanced Scorecard were extracted and examined with the help of deep-expert interviews to understand why specific metrics failed and why others didn't. The SWOT is then used to understand which KPIs could be improved further and whether some elements of the organization should be decentralized instead of being fully centralized.

The outcome of the study is a series of recommendations covering operations, processes, people and financials which are then presented to the head of the organization. Based on the findings from the study, the organization is recommended to reap the benefits of centralized tooling, processes and economies of scale, whilst shifting the decision-making lower in hierarchy to enable organizational learning and innovation when it comes to resolving issues for the customers.

Keywords
Key Performance Indicator, Centralization, Decentralization, Customer IT Support, FTE, Regional Lead, Balanced Scorecard

Table of contents

1   Introduction

This thesis aims at improving the performance of the customer IT support organization of the Case Company, the Case Organization, by determining whether the centralization project conducted in 2020 was a success and which elements of the organization should be improved further. It also assesses the strengths and weaknesses of the chosen performance management tool for the organization. The recommendations for further improvement that are formed as the outcome of this study, and presented to its management, also aim to identify whether centralization is the ideal form of organization for the Case Organization or if some parts of it should be decentralized. A successful customer IT support organization means an increase in customer satisfaction and ultimately benefits the whole company.

1.1   Background of the Thesis

The Case Company is a global company delivering consulting, digital transformation, technology and engineering services. It is a multinational with 200,000+ team members around the globe. The case company's portfolio of infrastructure services includes a full spectrum of Cloud Services, End-User Services, Service Integration offerings, and Cybersecurity Services. All these services are designed in a way so they can work jointly. The case company's Managed Services organization ensures all these services are delivered to the customer in a satisfactory and unified manner.

One of the services that the company delivers is the Service Desk that performs standard Level 1 activities for its customers, which includes monitoring, troubleshooting and the assignment of the remaining tickets to resolver groups, the Level 2 and Level 3, that are capable of resolving more technologically complex tickets for our customers, such as ones that require performing server or database support- related activities. The Level 2 teams deliver service from various hubs around the globe, consisting of change management, patch management, and other technology-specific tasks. The Level 1 includes a team of agents who pick up tickets via email, phone or chat from the customer end-users. The agents then assess the ticket and then either performs standard troubleshooting or alternatively routes it through the IT Service Management tool, e.g. ServiceNow, to the appropriate resolver team that could be either from the Case Company, the customer or an external vendor.

Up until April 2020, there was only a certain number of each level of resources available per region and each region was managed separately as separate resource hubs. This

meant that each service delivery team was not able to leverage the skills and the resource pool of the other regional organizations and was only limited to a fixed set of resources. The Case Organization is the customer IT support organization of the Case Company's Infrastructure Services which delivers Level 1 and Level 2 support for its customers, i.e. the first-level service desk which performs standard troubleshooting tasks and the infrastructure/application support teams that perform more advanced service tasks to resolve tickets. It was originally made up of separate, siloed, regional teams with regional managers. It consists of six global service delivery hubs, located in Europe and Asia. Asia hosts three of those sites. The resources were also regional and the 850 employees within the Case Organization were split by region. Each member of the Level 1 and Level 2 teams had approximately three to four customers.

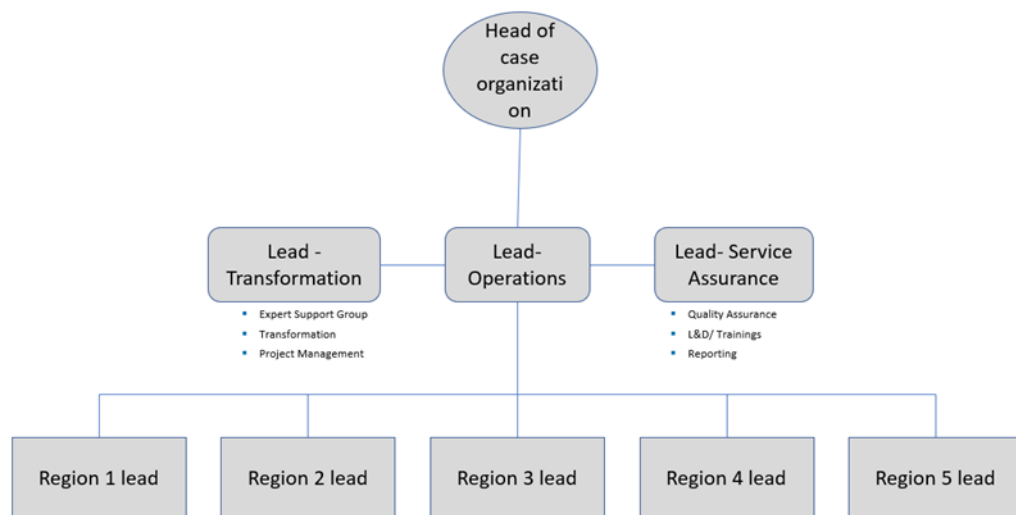The below organizational chart shows the state of the Case Organization before April 2020:

Figure 1. Old Case Organization organizational structure

There was a separate regional lead managing the operations and resource base for each region. These regional leads then reported to the Operations Lead who passed on the feedback about operations and points of improvement to the head of the Case Organization.

1.2   Case Company and Organizational Centralization.

The Managed Services Organization of the Case Company, which is responsible for managing the delivery of the ongoing services to the customers, saw having a fixed set of resources and skills per region an issue as the account service delivery teams could only use these same resources for their accounts. In addition, any expertise and skills would only be shared amongst the specific regional resource teams. Furthermore, all the processes were managed regionally and there was a lot of differentiation between the regions in terms of process quality and the level of governance.

After receiving such feedback from the Managed Services organization over time, the head of the Case Organization, including the company as a whole, therefore saw it necessary from the beginning to centralize and unify these organizational silos into a single organization from which resources can be leveraged on any account. This then led to the announcement of the organizational centralization project in the Fall of 2019 that would involve the breaking down of these regional service delivery teams and their centralization into one global customer IT support organization. The actual centralization would take place by April 2020 with other related activities such as the introduction of Level 0, including artificial intelligence, and a job rotation scheme for the Case Organization agents kicking off by September 2020.

The introduction of Level 0 enables the shifting left of standard troubleshooting tasks to be done by bots and the Level 1 agents will therefore start performing more and more Level 2 tasks. These standardized tasks include auto-callout, eyes-on-glass monitoring, auto-heal, auto-assignment as well as shift management. The bots monitor the customer's environment via different monitoring tools and either perform auto-heal or do an auto-callout to a specific resolver group, or alternatively auto-assign the ticket to that resolver group. Centralization refers to a process where the decision-making and operations of an organization are concentrated to a specific location or management. The decision-making takes place centrally and all the teams within that organization receive their goals and targets from the head of the central organization (What is Centralization, 2020).

What changes with this organizational centralization project is that instead of individual regional teams led by regional management in Europe and Asia, there will be a single global team, governed centrally, with a single lead for the global Level 1 team and a lead per ser-

vice team in Level 2. Instead of regional resource pools, these same resources will be mutualized globally where any resource can be deployed on any customer. The company and the management of the organization have set specific operational, process, people and financial goals that it is aiming to achieve with this centralization and a specific performance management tool, the Balanced Scorecard, has been chosen to monitor the success of this project.

1.3   Research Question, Scope and Structure of the Study

The thesis aims to determine whether a centralized governance and operations is a desirable state for the Case Organization. The outcomes of the thesis are to measure the performance of the organization before and after the centralization with the chosen measurement tool and criteria that are aligned with the goals set for the centralization project. The results of the centralization are then analyzed against those set goals with the support of a literature review and deep expert interviews. The core outcome is to provide the head of the Case Organization with concrete recommendations on how to improve the organization going forward.

The above outcomes are supported by the chosen research questions, shown below:

RQ1 = Is the Balanced Scorecard a suitable method to measure organizational change or performance?

RQ2 = How do centralized operating models impact the performance of customer support organizations?

RQ3 = What are the elements of the organization that should be improved?

RQ4 = Should all layers of an IT support organization be centralized?

RQ1 covers the measurement of the organizational centralization and how adequate the chosen tool is for tracking the success of such a project. RQ2 looks at organizational centralization from a theoretical perspective, exploring its advantages and disadvantages. RQ3 is there to measure the performance of the different elements within the organization to then determine which organizational goals were not reached despite the centralization

and should therefore be improved further. RQ4 aims to conclude whether certain elements of an organization should have been centralized in the first place.

The scope of this thesis is to measure the initial state of the organization before the centralization has taken place and then to take another measurement after the centralization has been completed to understand which of the goals set by the organization have not been reached. The areas of the Case Organization are then identified where the specific KPIs linked to those goals have not been reached post-centralization with the help of the Case Organization service assurance team, responsible for driving service improvements in the Case Organization. The associated regional leads of those specific teams within the organization are then contacted and deep expert interviews are conducted to discover what needs to be further improved to reach those organizational goals. A literature review is conducted in parallel combined of studies and articles assessing organizational centralization and its impact. This literature review is then combined with the results of the deep expert interviews to form improvement recommendations to the head of the Case Organization, together with the quality assurance lead.

This thesis is written in seven sections. Section 1 is the introduction. Section 2 represents the research methods used and describes the material resulting from it. Section 3 describes the chosen tool to measure the success of the organizational centralization, as well as its strengths and weaknesses. Section 4 discusses centralization from a theoretical perspective and determines its advantages and disadvantages for an organization. Section 5 describes the chosen key performance indicators, the measurements taken prior and post-centralization, and the findings from the resulting deep expert interviews. Section 6 assesses which KPIs and the interlinked goals were not achieved after the centralization and states what the recommendations for the head of the Case Organization are based on the deep expert interviews and the theory regarding centralization. Section 7 concludes the thesis by discussing the presentation and the associated meeting with the head of the Case Organization to present the recommendations. It finishes off with summarizing the feedback from the head of the Case Organization and with the reflection on personal development as a result of conducting this study.

2 Research Method and Material

This section provides an overview of the chosen research approach, the research design as well as a description of the ways the data was gathered during the centralization project to measure the baseline, the result after the project was completed and the investigation into the failed KPIs.

2.1 Research Approach

Action research was selected as the research approach for this thesis study as it fits the structure of the thesis and the centralization project overall. Action research can be defined as a method of systematic enquiry that the researchers undertake on a chosen project (James, n.d.). It is often described as a participatory research, involving the following phases:

- planning a change
- acting and observing the process and consequences of the change
- reflecting on these processes and consequences and then replanning,
- acting and observing,
- reflecting,
- etc….

(Kemmis and McTaggart, 2005)
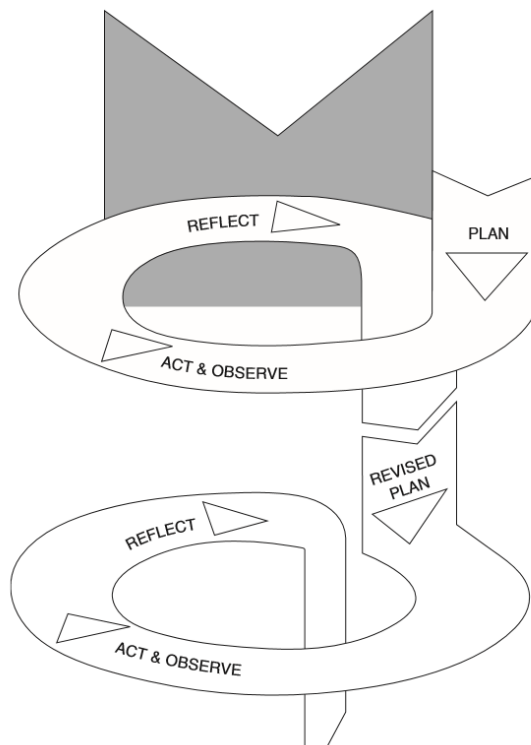
Figure 2. Action Research Phases (Kemmis and McTaggart, 2005)

Participatory action research more specifically refers to a self-reflective enquiry that the participants of the study and the researcher undertakes to understand and improve the practices in which they participate and the situations in which they find themselves (Baum, MacDougall and Smith, 2006). So, it is effectively a form of action research where the participants themselves are involved in the planning, observation and in the implementation of the associated corrective actions.

The phases of participatory action research shown in Figure 2. above reflect the structure and the steps in this study and the underlying centralization project. The first step involves the planning of the thesis project. The second step involves the acting of the actual centralization and then observing, or measuring, its impact. The measurement of the impact is then reflected upon by assessing in which parts of the organization the centralization was successful in and in which parts it was less successful. The underlying reasons are then turned into improvement recommendations and reviewed with the head of the organization. A revised improvement plan is then formed for the centralization project itself to improve the remaining parts of the organization. To summarize, the steps within the participatory action research apply to both the study and the underlying centralization project as they work hand in hand.

2.2 Research Design

The aim of the study is to combine real data, including interview findings, with theory regarding centralization to form concrete recommendations to the head of the Case Organization for further improvements. All this is done following the participatory action research steps as mentioned in Section 2.1. The research design framework below further illustrates the formation of those recommendations via the process:

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┌─────────────────────────────┐
│   Research Questions RQ1-4   │
└─────────────────────────────┘
               │
               ▼
┌─────────────────────────────┐
│  Data collection and literature │
│            review            │
└─────────────────────────────┘
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│   Conducting deep expert     │
│  interviews based on data    │
│           gathered           │
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┌─────────────────────────────┐
│   Combining deep expert      │
│ interview findings and literature │
│            review            │
└─────────────────────────────┘
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        ⬯ Formation of
          recommendations ⬯
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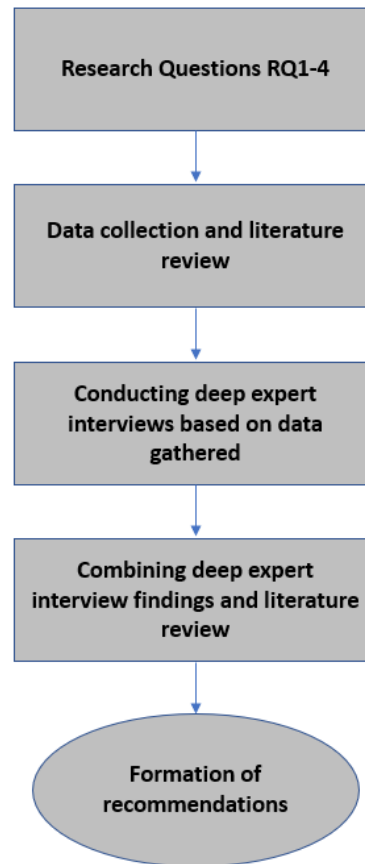
Figure 3. Research design of the thesis

The research design presented in Figure 3. displays the steps that this study takes to form the recommendations for further improvement to the head of the Case Organization. The data collection involves the implementation and use of the Balanced Scorecard with pre-selected KPIs to measure the impact of the centralization. The literature review covers both the theory around the Balanced Scorecard as a tool to measure organizational change as well as around organizational centralization. Deep expert interviews are conducted based on which KPIs were not reached after the centralization and based on which team is responsible for driving those improvements. The deep expert interviews are then combined with the theory findings regarding centralization and recommendations for further improvements are then formed out of these and presented to the head of the Case Organization.

2.3 Data Collection and Analysis Methods

The type of research conducted by this study includes both quantitative and qualitative research. The quantitative element comes from the data collection with the Balanced Scorecard. The qualitative elements comprise of the literature review and the deep expert interviews.

The Balanced Scorecard was chosen by the head of the Case Organization as the tool to measure the success of the centralization project. The Balanced Scorecard was split into four components: operations, process, people and financial. Each of these components were assigned a vision by the leadership of the Case Organization. Each of these visions were then assigned goals, objectives, the KPIs to measure those objectives, and associated monthly KPIs. ServiceNow ITBM (IT Business Management) is the tool that was configured to collect data from relevant ITSM (IT Service Management) tools and well as monitoring software, e.g. form Tivoli into the Balanced Scorecard KPIs. The service assurance team, with the help of the thesis author, were then assigned to govern, report and improve on these KPIs. Section 3. further explores whether the Balanced Scorecard is a suitable tool to measure organizational change as well as what its advantages and disadvantages are. The chosen visions, goals, objectives, and KPIs are reviewed in Section 5. This section includes the actual KPI data collected with the tool.

The literature review is conducted by the author of the thesis project to assess the suitability of the Balanced Scorecard to measure such an organizational change or centralization, as well as to determine the advantages and disadvantages of centralization for improving organizational performance. The objective of a literature review is to summarize the state of the art in the subject field (Rowley and Slack, 2004). The literature review process comprises of evaluating information sources, searching and locating information resources, developing conceptual frameworks and mind mapping, and of writing the literature review. The literature review within this thesis is covered in Section 3 and 4 and includes both university studies as well as various articles related to the topics being researched.

Deep expert interviews, or in-depth interviews, are conducted with the regional leads after completing the centralization of the Case Organization to understand why the specific KPIs were not reached. In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with respondents to explore their positions on a situation or idea (Boyce and Neale, 2006). Such interviews are used to provide context to data gathered, offering a more complete picture of what took place and why the data is as is. The steps included in in-depth interviewing include planning, developing the interviewing instruments, colleting the data, and analyzing the findings to disseminate them. The interviews with the regional leads were conducted via Skype and Teams within review meetings, the results of which will be described in Section 5.4. The results were collected by the thesis author on paper, as well as in an action tracker managed by the Service Quality Assurance (SQA) team. That action tracker is something internal to the organization and will not be explored as a part of this thesis project.

Balanced Scorecard as a Tool to Measure Organizational Change

This section gives an overview of the Balanced Scorecard as a tool and determines its usability in the organizational centralization project by discussing the benefits and disadvantages of using it. The section attempts to answer the first research question: "Is the Balanced Scorecard a suitable method to measure organizational change or performance?".

2.1   Balanced Scorecard as a Tool

The Balanced Scorecard is a set of measures that gives the management of an organization a comprehensive view of its performance (Kaplan and Norton, 1992). The tool includes financial measures and complements them with operational measures on customer satisfaction, internal processes, and the organization's innovation and improvement activities which also drive the financial performance of the organization. The Balanced Scorecard has multiple uses, including the use of it to facilitate decision-making by the management of an organization and tying those managerial goals to the detection of warning signs and/or the monitoring of the resulting corrective actions (Bisbe and Barrubés, 2012). It usually involves the defining of the organizational vision(s) and the development of strategies to implement the vision(s). Those strategies are then turned into reachable goals and actions with the target to generate value for the organization (Kaplan and Norton, 1993).

The development of a balanced scorecard involves the assembling of strategic components into a system. Each of those components are then developed in a logical order, using a framework of discovery and strategic thinking. Once the system composed of those strategic components has been developed, the Balanced Scorecard is then assembled and communicated within the organization. The scorecard can also include a strategy map to show how value is created for the members of the organization, strategic objectives, performance metrics to measure against the set targets, and a list of corrective actions to fix any objective that has not been reached to make the strategy set by the organization attainable (Rohm, 2008).

For the implementation of the Balanced Scorecard to be successful, several factors should be ensured by the organization. Firstly, there should be consensus within the organization regarding the strategy and the performance objectives so that all stakeholders agree to follow those during the running of the tool. The head of the organization should

be the one leading the implementation and the ongoing monitoring of the tool to ensure a climate for change and that there is a common focus on the various improvement initiatives for the failed metrics. Another important point is to make the organizational strategy the focal point of everyday activities for all the teams. Finally, the management and monitoring of the Balanced Scorecard should be a continuous process with regular review sessions established by the head of the organization to ensure that all stakeholders are aligned to the latest status of the strategic objectives (Caudle, 2008).

2.1.1 Features

The Balanced Scorecard is formed out of four interconnected goals: financial, customer, process and people goals. The financial goals are any financial goals that have an impact on the organization and define the long-run business objectives of the organization. The financial goals typically cover profitability, but other goals are also possible. The customer goals cover any goals which are important to the customers of the organization and tend to include generic outcome measures such as customer satisfaction, customer retention, new customer acquisition and market share. The process goals cover any internal processes that need to be completed by the organization in order to meet the customer goals and to perform well financially. Finally, the people goals cover any skill-based goals determining what skills or expertise are needed by the employees to execute on the processes that enable for the organization to reach the customer goals and to perform financially. The Balanced Scorecard typically reveals gaps between people, systems and procedures and will lead to the organization having to invest in upskilling the employees, improving systems and processes in order to close these gaps (Kaplan and Norton, 1996).

The Key Performance Indicators, or KPIs, selected by the organization to measure the goals should follow the principles of SMART, i.e. they should be smart, measurable, attainable, realistic and result-oriented, and time-sensitive. The organization should first define and list the available KPIs, prioritize the KPIs according to SMART principles, compare the KPIs with other alternative KPIs, calculate their global and local weights, as well as to select the specific KPIs most relevant to the organization's goals (Shahin and Mahbod, 2006). Once the KPIs to be tracked have been selected by the organization and aligned to its goals, the actual Balanced Scorecard can be created. Figure 4. shows the original Balanced Scorecard as created by Robert S. Kaplan and David P. Norton in 1996:
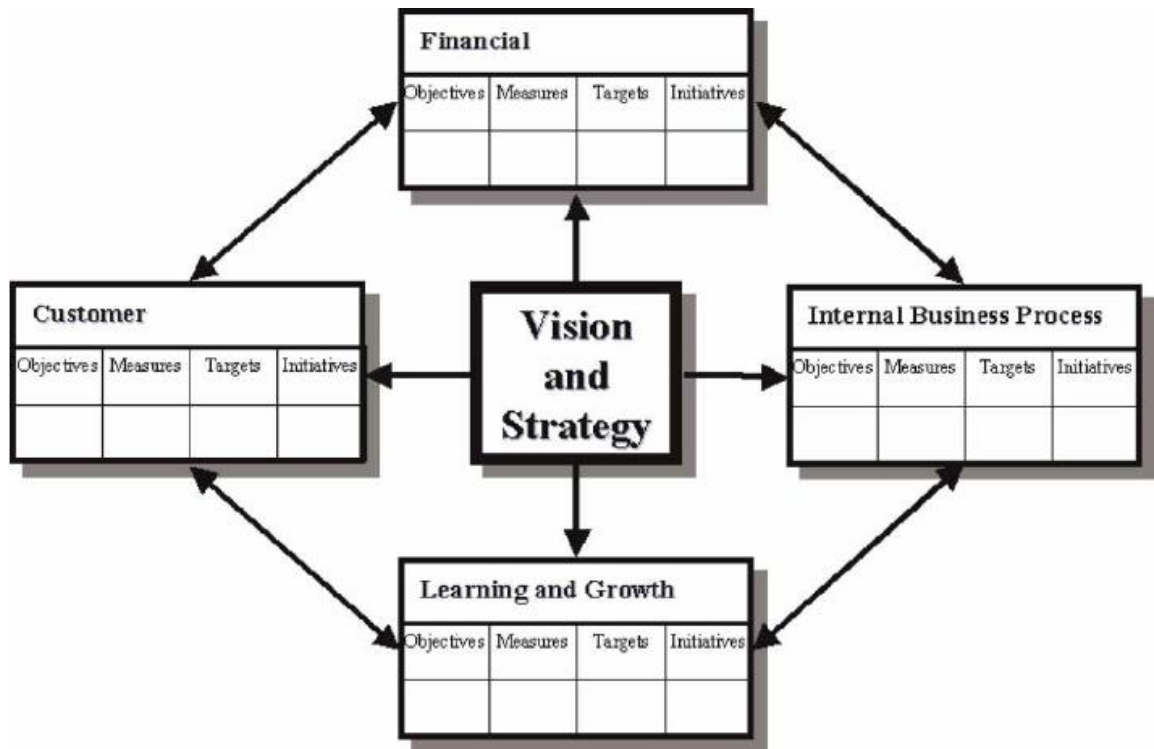
Figure 4. Balanced Scorecard (Kaplan & Norton, 1996).

The Balanced Scorecard reflects the vision and strategy of the company or organization in terms of four different components, which are usually customer, internal business process, learning and growth, and financial. Each of these four elements are then split into objectives, measures (or KPIs) and targets. The initiatives are the actions taken by the organization to achieve the chosen KPI targets.

2.1.2 Advantages, Disadvantages

Advantages

One of the clear advantages of the Balanced Scorecard is that it allows for the organization to clarify and, if needed, refresh its vision and strategy by obtaining consensus on them. The tool then allows for turning those visions and strategies into concrete actions to achieve the set objectives. It also facilitates the internal communication of the visions, strategies and objectives within the organization which, in turn, improves performance throughout the organization. The tool makes the use of the existing resource base more efficient as it allows for tracking resource use, depending on the chosen performance met-

rics. It allows for the alignment of employee-level objectives with higher-level organizational strategy, thus enabling synergy between these different levels. The Balanced Scorecard ensures that performance improvement programs are targeted at processes or elements of the organization which are critical to the success of the organization. The tool is also not static as it allows for the ongoing monitoring of the performance metrics. The strategically aligned performance metrics make sure that all the teams within the organization focus on the strategic objectives and their improvement (Quesado, Guzmán and Rodrigues, 2017). Furthermore, the tool can be applied in companies of all sizes to manage and evaluate strategy, monitor organizational performance and to improve the communication between the stakeholders (Gomes and Romão, 2014).

Disadvantages

There are several downsides to using a balanced scorecard which should be kept in mind when implementing it for the organizational development initiative. First, the performance metrics being measured sometimes do not have any cause-and-effect relationship. On top of that the balanced scorecard tends to dismiss the dimension and impact of time in these cause-and-effect relationships. There is also no way to determine the relevance of the KPIs being measured as time goes on. Another limitation that has been highlighted is the fact that the goals captured within the balanced scorecard are too internally focused and do not capture changes in external conditions. Therefore, when setting the strategic goals for the organization, there should be an attempt to ensure that these goals have a cause-and-effect relationship at least on a certain level.

The chosen metrics should perhaps be reviewed on a frequent basis to ensure relevance. The balanced scorecard should ideally capture measurable input that is tied to the external environment. This is easy to achieve if we are talking about a customer-facing IT support organization. In addition to the above, when implementing a balanced scorecard for the organization, the company should ensure that the strategic goals captured within the scorecard are coherent and understandable by all levels of the organization (Salem, Hasnan and Osman, 2012).

2.1.3   Suitability

To summarize, the Balanced Scorecard fits the scope of the organizational centralization project quite well as it allows the organization to split the measurement of organizational performance into four key sections. The tool also allows the organization to track the progress and performance against the organizational goals or objectives, and those can be then visually shared in review sessions with the whole organization to emphasize the points of improvement. The organization should continuously track the relevance of the KPI metrics in order to ensure that the elements being measured are matching the current vision and goals of the organization. The Case Organization is not being measured on financials by upper management so the 'Financial' component is not being emphasized in the project as much as the tool itself would allow.

4 Organizational Centralization as a Goal (to Increase Organizational Performance)

This section provides an overview of organizational centralization as a concept and describes the current trends and alternative forms of organizing that exist. It answers specifically the second research question: "How do centralized operating models impact the performance of customer support organizations?". The section concludes with the carrying out of a SWOT analysis to map out the strengths, weaknesses, opportunities and threats of centralization of a customer IT support organization. The analysis is an effective way of displaying the impact that centralized operating models have on the performance of customer support organizations. The SWOT analysis is then used as the qualitative and theoretical basis for forming the recommendations for further improvements and presenting those to the head of the Case Organization.

4.1. What Is Organizational Centralization

Definition:

Centralization is defined as the process by which planning, and decision-making are moved to the head of an organization or to a specific centralized location. Organizational centralization involves the decision-making being carried out by the head of the organization and all the subsidiaries then receive their directives from that single resource (What is Centralization, 2020). When it comes to a customer IT support organization, centralization means that both the strategy and execution are carried out centrally, using the same resources, and the same technical infrastructure is also shared by all subsidiaries. Other forms of organizing include 'decentralized', where the strategy and execution of services are handled separately by each subsidiary, and 'shared services' where the strategy is executed separately, but the services are delivered centrally (Bhattacharya and Thusoo, 2013).

Trends in IT:

In the past, organizing in IT companies and elsewhere involved the implementation of small-scale, temporary improvement initiatives that did cover the whole organization. However, the trend is now to move more towards an integrated operational environment

without separate organizational silos. The second element of the current trend is to move from each subsidiary having their own operational capabilities and technologies to having a common journey in terms of streamlining processes, digitizing daily operations, introducing AI to replace human tasks and to provide analytics to facilitate decision-making (Bollard, Larrea, Sood and Singla, 2017). Companies, including IT companies, are engaging in digital transformation and are shifting increasingly to digital operating models. This is done by dissolving traditional lines of business and operations and cross-skilling the teams to align them to the customer journeys whilst digitizing data and analytics to ensure smoother delivery and to enable innovation within the organization (Edmonds, 2019). However, even though the trend for companies would seem to be about shifting towards a centralized operating model, this doesn't mean that the model would come with no disadvantages and that other models wouldn't suit a company better than the one mentioned.

4.2. Advantages & Disadvantages (SWOT)

4.2.1 Advantages

Employees (learning, knowledge sharing, innovation, etc)

Centralization has been found to allow the staff of an IT service desk organization to move into different teams within the organization to learn about different technologies and to further expand their skillsets by cross-skilling (Gordon, 2018). Similarly, a study conducted within the retail industry has found that having common practices across stores in a centralized retail chain enhances learning spillovers between those stores. The fact that useful practices are adopted from other stores means learning is enhanced throughout the retail chain (Chang and Harrington, Jr., 2000). One can assume that this applies to any organization, including an IT support organization, as the learning occurs via adopting common practices via centralization of the organizational structure.

A thesis written about optimizing a decentralized organizational model also argues that a centralized IT function allows for its staff to specialize and to have deeper knowledge of the associated IT systems in comparison to a decentralized organizational structure. It mentions that specialists perform better than generalists (Bäckström, 2019). Furthermore, organizational centralization has been found to increase job feedback for employees

which in turn further increases the rate of job satisfaction leading to an improvement in or-ganizational commitment. This is because receiving feedback regarding employee perfor-mance on the job makes the employees aware of their strengths and the points that need to be improved upon and simultaneously shows the employees how they are positively im-pacting the performance of the organization overall. This increases their motivation to per-form even better (Taghizadeh, Sobhani and Sobhani, 2012).

Operational performance

When it comes to operational performance, a centralized support organization means a single, unified point of contact for customers for all requests across geographies, whereas local, regionalized support teams may face raising tickets in different systems and the us-ing of separate technologies to resolve them (Bhembre, 2014). This inconsistency in tool-ing and technology with a decentralized organizational structure would therefore nega-tively impact the operational performance of the organization.

Having a centralized support organization also enables a more efficient shift management for the employees and can allow for out-of-hours support depending on the setup of the organization (Gordon, 2018). Local and regional teams often face the issue where they can only work during business hours within their time zone. This means that support is limited for the customers. Centralization and the standardization of tooling within the or-ganization allows for a centralized knowledge base to be created which in turn increases the first-time fix rate for the organization.

Centralization also facilitates data collection and analysis in order to reduce the number of operational errors and to address other escalations faster (The Benefits of Centralizing Contact Centers - Frost & Sullivan, 2019). This is due to each team reporting within the same organization, using similar technology and tooling, and the data is therefore shared more consistently throughout the teams.

Processes (efficiency, simplicity, etc)

Processes are also streamlined by centralizing the organization. Centralization increases the efficiency of decision-making as it enables the management of the organization to have a broad perception of any situation taking place (Farooq, 2016). This means that any potential duplication of efforts is avoided as each of the units of the organization receive the same communication from the same manager. In a decentralized organization this

wouldn't be the case necessarily as the communication may get distorted or be separate between the various local units.

Other research findings indicate that a centralized organizational structure also allows for the alignment of the organization with business-level priorities. It allows for a better integration of the organization-level plans with the high-level strategic plans of the company (Rickards, 2007). With centralization, the support-related reporting becomes easier and more efficient as there is a single system and team across all technologies (Bhembre, 2014). In addition to this, centralization allows for standardization to be implemented in SLAs and in the escalation process which in turn improves the resolution time overall as there is a single team managing support through a single, unified system.

A centralized delivery model also allows for matching a specific skill with a specific type of work. Administrative tasks are handled by the customer, using Tier 0 capabilities, such as a service portal or Artificial Intelligence / Chat Bot. Centralized organizations and delivery models are also more scalable, meaning that they can handle more customers and a higher workload in comparison to decentralized models (Manning and Hilton, 2019).

Financials (cost)

Centralization of a support organization has a generally positive impact on the financials of the organization as it means that the infrastructure of the organization, including tooling and technology is pre-defined (Bhembre, 2014). This means that the centralized support organization is more cost efficient in comparison to a decentralized one where there is more differentiation.

Although perhaps controversial, there is a cost benefit for the company for having the support organization located in single location in a country with a lower cost of living, including lower salary and associated benefit costs (The Benefits of Centralizing Contact Centers - Frost & Sullivan, 2019).

As already mentioned previously, centralization of the support organization includes the standardization of tooling, and technology. This then translates into lower operating costs for the organization overall. In my opinion, it is evident that standardization and the resulting reduction in operational errors also leads to a reduction in service penalties for the company.

4.2.2 Disadvantages

Employees (learning, knowledge sharing, innovation, etc)

Even though the impact of organizational centralization on employees is largely positive, there are still some disadvantages that should be considered. Research indicates that centralization may cause a reduction in creativity and limit communication between different departments of the organization, including the sharing of ideas (Pertusa-Ortega, Zaragoza-Saez and Claver-Cortes, 2010). The argument made by the research is that the establishing of formal communication channels within a centralized organization structure has a role in limiting spontaneity within the teams. There is essentially a single truth coming from management that needs to apply to all of the teams within the centralized organization and this leads to less innovation taking place.

In addition to the above, another research paper found centralized organizations to have less transparency in strategic communication amongst the organization in comparison to decentralized organizations. There is also more of a decoupling between individuals and ideas in a centralized organization whereas in a decentralized organization there is more of a connection among individuals and ideas over time (Mack and Szulanski, 2017). The reason for this is the fact that in centralized organizations the decision-making takes place on the corporate level whereas in decentralized organizations decision-making tends to also include lower-level employees. The corporate-, or management, level tends to have less of a visibility of what is really taking place in day-to-day operations, whereas the employees working in those teams themselves can give a more accurate account of the status of the ongoing activities. In order to increase the level of transparency in strategic communication, centralized organizations should ideally engage in open strategizing by utilizing inclusive and participatory practices.

Research conducted in China has also found that collectivism combined with centralization can negatively impact managerial efficiency and ambidextrous innovation and thus an organization within a collectivist culture should be organized in a decentralized manner (Yang, Zhou and Zhang, 2014).

Similarly, another empirical study from 2016 looking at 2811 projects on the coding site GitHub found that the decision-making structure of an organization impacts innovation and that innovation in terms of code revisions increases as the decision-making in the organization becomes more decentralized (Lee, Min and Lee, 2016). The study claims that decentralization nurtures discussion before adopting a process or a project and therefore leads to different ideas being considered when delivering a solution or service. In addition, a decentralized organization may be enabling the teams to allocate more time and focus on working on specific tasks whereas a centralization approach may attempt to make work more time efficient and to combine smaller tasks thus leading to less focus on individual tasks and innovation.

A paper aiming to determine which type of organizational structure provides suitable conditions for the development of organizational learning concluded that organizations with a low level of centralization and high socialization have higher levels of organizational learning (Martínez León and Martinez, 2011). The study claims that decentralization enables behavioral changes and encourages interpersonal exchange and social interaction. Decentralization is also claimed by the study to reduce the cognitive workload of the employees with decision-making capability and thus leaves more room for learning. It claims that centralization would reduce the delegation of decision-making authority and the level of participation of employees within different projects thus reducing their communication, motivation and the number of social interactions.

Operational performance

Although research states that the impact of centralization on operational performance is positive, there are still some negative implications for it operationally speaking. In case of a centralized support organization, the performance is entirely dependent on that single organization and there is essentially no backup team. If the site where the team is located fails, or the single tool or system fails, then the operational performance is impacted for the whole organization across the whole customer base (Bhembre, 2014). In addition to the above, centralized support teams often base their issue resolution time on the prioritization of tickets and their geographical location. This then leads to smaller issues and low priority tickets taking longer to get resolved. This, in turn, may have a negative impact on customer satisfaction in the long run.

Processes (efficiency, simplicity, etc)

When it comes to the operational performance of the organization, centralization can cause additional levels of bureaucracy on top of each other which impacts the number of and the efficiency of processes. Decision-making processes may become slower due to feedback from the field reaching the management layer later and any decisions will also reach the frontline operations slower (Vitez, 2019).

Financials (cost)

There is very little research indicating that centralization is a worse option for an organization when it comes to cost. In my opinion, one can still look at the other downsides of centralizing an organization mentioned above and see which could lead to additional cost or less revenue for the organization. Lower levels of innovation obviously can lead to less revenue if it means lost sales opportunities. However, this typically doesn't apply to customer IT support organizations as sales is not one of their tasks. Lower levels of organizational learning might cause increased costs or at least a missed opportunity to reduce cost as the number of errors is kept the same and there isn't any more learning from mistakes taking place. Operational failures such as via site outage might mean more service penalties paid to customers and more costs via that route. Slower operations via excessively rigid processes may have a similar impact.

4.2.3 Further Research

What should be in place before centralizing?

There are several questions a company or an organization should answer before centralizing. According to a decision-framework based on fifty interviews conducted with the heads of group functions of thirty global companies as part of a study, there are three key questions that should be answered before centralizing:

1. Is it mandated?
   - Do external stakeholders require it?
   - If so, must it be done at the group center?
2. Does it add significant value?

- Does it add 10% to the market capitalization or profits of the group?
- If not, is it a part of a larger initiative that will add 10%?
3. Are the risks low?
- Does it avoid risks of bureaucracy, business rigidity, reduced motivation or distraction?

(Campbell, Kunisch and Müller-Stewens, 2011)

According to said study, a decision to centralize should mean a 'Yes' answer to at least one of the above questions. There needs to be a concrete benefit for the organization that is planning to centralize. Using such a decision-framework could assist the leadership of the organization to counter any potential downsides with making such organizational changes.

Participatory goals

A study conducted in Sweden, examining the use of goals as a means for performance control in a multi-unit organization concluded that a participatory approach is recommended for setting goals to measure organizational performance and such an approach should be in place before embarking on any new initiative. The study found that there was an increase in motivation amongst the employees when working towards goals that were set in a participatory manner and it increased their commitment towards those goals (Eriksson and Gustavsson, 2013). Therefore, an organization should define a set of participatory goals before starting to centralize and measure organizational performance accordingly. This is also an opportunity for the company or organization to counteract the downsides of centralization, including increasing communication between the various departments, increasing the transparency of strategic communication, and improving organizational learning and decision-making processes.

Shared services

Research shows that centralization and decentralization are not the only forms of organization out there and that elements of each can be leveraged to deliver an optimal service to the end-users. Tuft University in the US alternated for years between having a centralized and decentralized IT support organization. Attempting to establish a centralized IT support model caused the support to not be localized enough and having a decentralized

support model caused various inefficiencies. The core IT services such as network connectivity, VPN access and email were provided by the central IT organization, but support services were kept local managed by fifty front-line support providers. There was inconsistency in terms of skills and the communication wasn't flowing equally to all the front-line support providers. As centralizing had caused complaints from the local end-users before, the central IT organization decided to instead implement a standardized IT certification program, including security training to improve the quality of the front-line support providers. On top of that, the central IT organization assigned three resources from the central organization to work within the local units to improve communication and to gather information to reduce escalations and other concerns from the end-users (Cummings, 2002). This approach was essentially a hybrid between a centralized and decentralized support organization which helped to resolve concerns on both sides of the aisle.

The 'hybrid' organization mentioned above can also be referred to as a 'shared services' organization. The picture below illustrates a shared services model that an organization can adopt to reap the benefits of both the standardized toolset, economies of scale and knowledge of the centralized model as well as the recognition of priorities and the retention of local control that comes with the decentralized model:

Shared Service Benefits

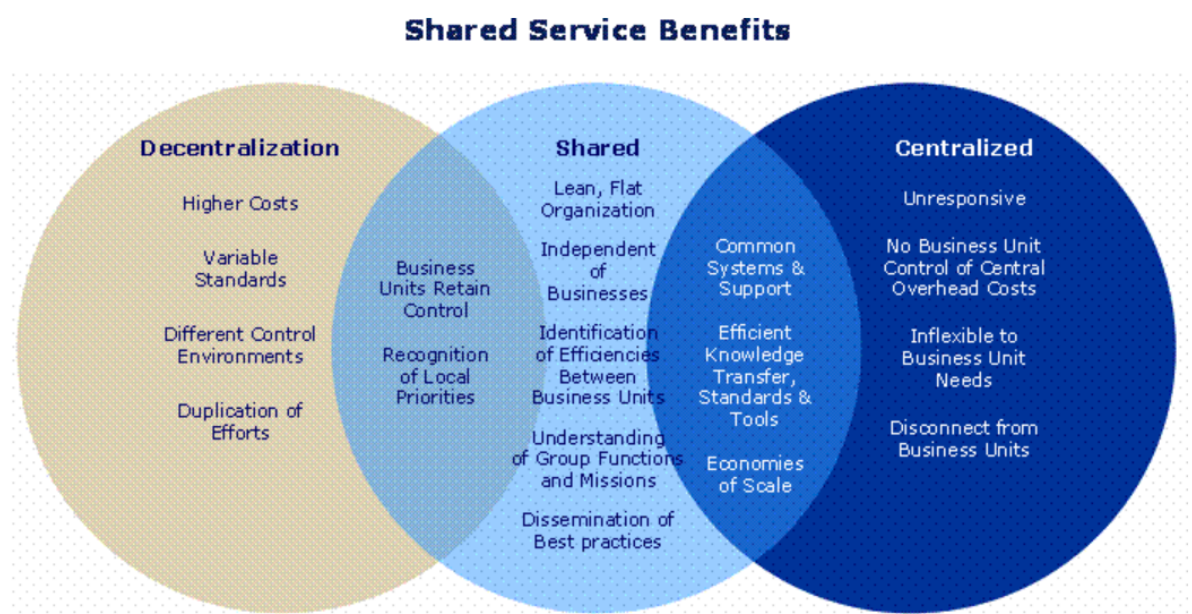| Decentralization		Shared		Centralized
Higher Costs		Lean, Flat Organization		Unresponsive
Variable Standards	Business Units Retain Control	Independent of Businesses	Common Systems & Support	No Business Unit Control of Central Overhead Costs
Different Control Environments	Recognition of Local Priorities	Identification of Efficiencies Between Business Units	Efficient Knowledge Transfer, Standards & Tools	Inflexible to Business Unit Needs
Duplication of Efforts		Understanding of Group Functions and Missions	Economies of Scale	Disconnect from Business Units
		Dissemination of Best practices		

Figure 5. Shared Service Benefits (Luddy, 2011)

Similarly, a study conducted by surveying 535 members of a Canadian call-center industry association in 2001 found that elements of both decentralization and centralization are ideal for call centers (Adria and Chowdhury, 2004). A decentralized approach was found

to be the most optimal solution for service delivery and decision-making whereby the organizational design recognizes the high-contact nature of the service operations. The front-line staff should make decisions that were previously made centrally as this provides an opportunity to improve the resolution time for the requests coming in.

There should ideally be an agreement made by the head of the organization and the call-center managers to allow informal consultations between agents on service delivery issues. For this to work, the study concluded that the call-center should be supported by managers that are familiar with procedures for monitoring and controlling the agents as needed. A centralized approach, on the other hand, was found as the ideal solution to control the call-center operations by the management of the organization. Training should be centrally provided to the agents, as well as a central knowledge base to organize information regarding tips and tricks for the customers. In addition, measuring of service performance and the associated management reporting should be centrally organized and managed to ensure efficiency of processes and operations.

4.2.4 Summarizing the Research Findings (SWOT)

The table below shows the research regarding organizational centralization mapped into a SWOT matrix. SWOT consists of strengths, weaknesses, opportunities and threats. Despite the analysis having some limitations, SWOT is still an important strategic tool for mapping the strengths and weaknesses, as well as the opportunities and threats facing an organization and to translate those into value (Coman and Ronen, 2009). The different inputs within the below matrix are composed of the research conducted earlier in this section and are summarized accordingly.

Strengths	Weaknesses
- Cross-skilling and learning spillover. - Increased job feedback and organizational commitment. - Consistent tooling and technology. - Increased FTF rate due to centralized knowledge base. - Reduction in operational errors due to efficient data collection and analysis.	- Reduction in creativity and innovation of customer-facing teams. - Reduction in organizational learning. - Less focus on specific tasks. - Less transparency in decision-making and strategic communication. - Less visibility of day-to-day operations for management.

Opportunities	Threats
- Improved resolution time due to stand-ardization in SLAs and escalation process. - Integration of operational plans with high-level strategic plans. - Scalability. - Cost-efficiency.	- Low managerial efficiency. - No backup-site in case of site failure. - Slower resolution time for low-priority tickets.
Opportunities	**Threats**
- Use inclusive and participatory practices for strategizing and communications. - Reduce cognitive workload of management by assigning a separate team to communicate with front-line operations. - Locate the organization in a single low-cost country. - Implement a 'shared services' structure with multiple sites. - Allocate resources on resolving ticket backlog.	- Lack of planning before centralizing. - Establishing the centralized support organization in a collectivist country. - Establishing the support organization in a country with high resource costs. - Site outage. - Lack of organizational learning and the resulting repetition of errors.

Figure 6. SWOT analysis for centralization

The strengths and weaknesses mentioned in the above SWOT are simply summarizing the research findings. The opportunities are effectively the ways mentioned in the research to minimize the disadvantages of centralization. Use of inclusive and participatory practices is mentioned to ensure that decision-making includes the front-line teams and to increase the transparency of decision-making and strategizing. Such practices will also increase the level of innovation and idea-sharing within the organization. The reduction of the cognitive workload of management by assigning a separate team to communicate with each front-line team is an opportunity for the organization to increase organizational learning and managerial efficiency. It will also improve the visibility of day-to-day operations to the management of the organization to identify points of improvement. Locating the organization in a low-cost country gives the organization further cost benefits on top of the already cost-efficient centralized structure.

A 'shared services' structure is mentioned as an opportunity to shift the decision-making to the front-line teams with the encouragement of informal communication between agents or service delivery-related issues. Management should only be monitoring and controlling

the organization and providing centralized trainings and a knowledge repository for the teams. The 'shared services' structure would improve the resolution time as the focus will be on the front-line teams more. The 'shared services' structure would allow for there to be multiple sites as well as the front-line teams could operate more independently, and this would reduce the risk of site failure and the resulting penalties. Finally, to also place focus on low-priority tickets, the organization should assign resources to focus on the ticket backlog for the customers. This would improve and sustain customer satisfaction.

The threats mentioned in the SWOT include the lack of planning before centralizing. The organization should make sure that there is a concrete benefit for centralizing, i.e. that the customers or the industry requires it, there is value to be expected from making this change and that the expected risks can be managed. Establishing the centralized support organization in a collectivist country, e.g. China, was mentioned as a threat as a collectivist culture combined with centralization was found to reduce managerial efficiency and ambidextrous innovation. The threats also include the establishment of the organization in a country with high resource costs as this may make the already achieved cost efficiencies redundant. Having a site outage was mentioned as a threat also due to the assumption that a centralized may have only a single site from which it operates.

If this single and only site experiences an outage, then all services delivered by the organization would be impacted. Lack of organizational learning as a result of decision-makers being too overloaded with handling front-line team-related escalations and communications was mentioned as a threat due to the possibility of error repetition. If the management of the organization doesn't have the time to make the effort to identify systematic and structural issues within the organization that cause errors, then these errors will keep repeating and have the potential to cause financial penalties for the organization.

To summarize, the SWOT analysis pulls together the research findings regarding centralization and allows the strengths, weaknesses, opportunities and threats to be clearly mapped. This, in turn, allows for the data to be used in defining the recommendations for further improvements to the head of the Case Organization. The analysis also does a fine job at explaining on a more general level how having a centralized operating model in place impacts the performance of customer support organizations.

5 Data Collection

This section explains what Key Performance Indicators (KPIs) were chosen to measure the success of the centralization project by the Case Organization and the measurement of the data using the Balanced Scorecard which was decided as the performance management tool of choice. The success of the centralization will be assessed by collecting the KPI data from October to December 2019 as the baseline and then taking a further measurement in April and May 2020 to understand the outcome of the centralization once the project activities have been completed. The understanding is further enforced by the deep expert interviews conducted to understand if and why certain KPIs were not reached. This section attempts to answer the third research question: "What are the elements of the organization that should be improved?". To be more specific, the section will summarize what elements of the organization should be improved further post-centralization.

5.1. Chosen KPIs

(Note: Specific KPI targets have been removed from the public version of the thesis)

In 2019, prior to kicking off the centralization project, the Case Organization decided to build the Balanced Scorecard by splitting it into four key segments: Operations, Process, People and Financial, which are the typical segments of the Balanced Scorecard. Each of those segments were then assigned an organizational vision. Those visions were then assigned goals, objectives, and then finally the KPIs. The core vision for the Case Organization for the centralization project was to "transform to a digitized Case Organization maturity". The vision assigned for 'Operations' was to "deliver services to enhance the internal customer experience by bringing in a matured and sustainable performance in the Case Organization". The visions assigned for 'Process' were to "re-engineer and improve internal governance processes in the Case Organization to achieve predictable outcomes" and to "establish and improve the security posture of the Case Organization". The vision for 'People' was to "achieve a culture of growth and development to develop our employees to improve employee engagement and satisfaction". The vision for 'Financial' was to "allot and ensure optimal usage of the budget to support the business goals objectives".

Each of these visions were then given goals, i.e. what the organization wants to accomplish according to those visions. The objectives assigned to each goal were there to determine what actions the organization needs to take to accomplish those goals. The KPIs are

there to assess how the organization will measure those achievements. The vision for 'Operations' included the goals of "achieving service demands as per the contractual obligation for the Case Organization scope", "minimizing the incident backlog", "minimizing defects in services" and "being a true partner to the Case Organization customers (internal) enabling them to achieve their business goals". The associated objectives for those goals included "complying to SLA adherence", "reducing backlog of tickets", "reducing failed changes", "reducing operational errors", and "reducing complaints and escalations". The KPIs for complying to SLA adherence were "Response SLA" and "Resolution SLA". The KPI for reducing the backlog of tickets was "Incident Backlogs". The KPI for reducing operational errors was "Operational Errors causing Major Incidents". The KPI for reducing complaints and escalations was "Complaints / Escalations (From Customers / Geography Heads)".

The visions for 'Process' included the goals to "improve the governance of processes", "limiting major non-conformance related to information security", "limiting minor non-conformance related to information security", "installation of password manager for all individuals supporting customers" and "walkthrough audits for all employees in the Case Organization (at least once in six months)".

The associated objectives for those goals were "improving ticket quality score", "improving shift handover compliance", "meeting audit compliances", "no major non-conformance", "reducing minor non-conformance", "adhering to password manager installation compliance", and "enhanced walkthrough coverage".

The KPI for the improvement of the ticket quality score was "Ticket Audit Score". The KPI for improving shift handover compliance was "Shift Handover Compliance". The objective for meeting audit compliances had two KPIs assigned, the first part being "Major NC (non-conformance) In External Audits" and the second part being "Minor NC in External Audits". The objective for no major non-conformance was "count of major non-conformance". The objective for reducing minor non-conformance was "count of minor non-conformance". The KPI assigned for adhering to password manager installation compliance was "Password Compliance". The KPI for enhanced walkthrough coverage was "Average Audit Rating".

The vision for 'People' included the goals for "talent retention and employee experience", "prepared and trained workforce with a roadmap for growth", "completion of 40 hours of training for all employees in the Case Organization", and "completion of all mandatory

trainings assigned to employee from Case Company in the Learning portal". The associated objectives for those goals were "reducing attrition rate", "improving Employee Satisfaction Score", "improved job rotation", "meeting training hours compliance", and "adhering to mandatory trainings compliance". The KPI for reducing the attrition rate was "Year-To-Date Attrition Percentage". The KPI for improving the Employee Satisfaction Score was "Employee Satisfaction Score". The KPI assigned for improving job rotation was "Job Rotations Year-To-Date". The KPI for meeting training hours compliance was "Training Hours Completion". The KPI for adhering to mandatory training hours compliance was Mandatory Trainings Completion".

The vision for 'Financial' included the goals to accomplish "savings" and "meeting BAU (business-as-usual) financials". The associated objectives for those goals were "achieving FTE release as per quarterly budgets", "achieving ARVE fulfilment", and "achieving MTS fulfilment". FTE means the full-time equivalent, or the hours worked by an employee within a business day. This is, depending on the contract, typically eight hours per day for the resources within the organization. ARVE is an indicator of how many people are on the bench, i.e. without any customer, within the organization. MTS is the monthly timesheet where the employees book their working time.

The KPI for achieving the FTE release as per the quarterly budgets was the "FTE Released (YTD)". The KPI for achieving ARVE fulfilment was "ARVE". The KPI for achieving MTS fulfilment was "MTS".

5.2. Before-State of Organization (Oct-Dec 2019)

Measuring the before state of the organization prior to commencing the centralization project was essential to understand where the pain-points were when it came to organizational performance. Any changes in the KPI measurements would then be compared against the post-centralization state when the project was either mostly or completed between April and May of 2020. The snapshot for the before-state was taken from October to December prior to kicking off the various project initiatives. A snapshot from the Balanced Scorecard for the KPI actuals for the period between October to December 2019 can be seen below:

Area	KPI	Dec'19	Nov'19	Oct'19
OPERATIONS	Response SLA	Green	Green	Green
	Resolution SLA	Green	Green	Green
	Incident Backlogs	Red	Green	Green
	Failed Change	Green	Green	Green
	Operational Error causing Major Incident	Green	Green	Green
	Complaints / Escalations (From Customers / Geography Heads)	Green	Green	Green
	Volume of avoidable MIs	Green	Green	Green
	Case organization FTF Rate			
PROCESS	Ticket Audit Score	Green	Green	Green
	Shift Handover Compliance	Yellow	Yellow	Red
	Major NC In External Audits	Green	Green	Green
	Minor NC In External Audits	Green	Green	Green
	Average Audit rating			
	Major NC (Cybersecurity)	Green	Green	Green
	Minor NC (Cybersecurity)	Green	Green	Green
	Count of open high Risk	Green	Red	Green
	Password Compliance	Yellow	Yellow	Yellow

Area	KPI	Dec'19	Nov'19	Oct'19
PEOPLE	YTD Attrition Percentage	Red	Amber	Red
	Attrition of grade B (YTD)	Green		
	Employee Satisfaction Score	Amber	Amber	Red
	Job Rotations (YTD)	Green	Green	Green
	Diversity Target	Green	Green	Green
	Training Hours Completion	Green	Red	Red
	Mandatory Trainings Completion	Green	Green	Green
	Certifications			
	Skill inventory compliance			
	CV updates compliance			
	Fresher Deployment	Red	Red	
	Sapience – Hours accounted			
	Sapience - Active Users			
	Sapience – Hours Unaccounted			
FINANCIAL	FTE Released (YTD)	Green	Green	Green
	ARVE	Green	Green	Green
	MTS	Green	Green	Amber

Figure 7. KPI actuals before centralization

Describing the red/ amber KPIs for the Oct-Dec period. Why were these measurements there?

Multiple KPIs were red before the start of the project. For 'Operations', this was seen by the overall incident backlog increasing throughout the organization. In addition to this, the response SLA seemed to be decreasing between October and December 2019, although remaining green. Customer escalations were present for each month despite being green throughout. The first-time fix (FTF) rate – related data was still being loaded into the system at this point and hence it was not visible until December. When it comes to 'Process', both the shift handover and password compliance of the employees were either amber or red throughout the three months. For 'People', the year-to-date attrition percentage remained red or amber for all three months. The employee satisfaction score remained red or amber initially as well. Training hours completion was initially red but showed some improvement in December. Certifications, skill inventory and CV update compliance, as well

as Sapience data were all still being loaded between October and December and were therefore blank. Financial KPIs were mainly green during this time period apart from some minor data upload errors in October 2019.

As mentioned in Section 4., the common trends for an organization which is in a decentralized state are the recurring operational errors due to less efficient data collection and analysis, lower resolution time due to non-standard SLAs and escalation process, lower job-feedback and organizational commitment, as well as a lower first-time fix rate due to a lack of a centralized knowledge repository. On top of this, the typical decentralized organization suffers from a lack of consistent tooling and technology leading to inaccuracies in data. The ticket backlog experienced by the organization is not typical of a decentralized organization as it is claimed that such organizations have more time to allocate for resolving backlog but is more related to amount of resources allocated on such tasks in each region. Decreasing response SLA between October and December could be related to inefficiency in handling of tickets for specific customers. The resolution time was already green prior to the centralization so from a performance perspective there is not much of an improvement to be done. However, the escalation chain is unified in a centralized organization so one would expect to see even lower resolution times after the project is complete. The recurring operational errors can be seen prior to the centralization project in the KPI data and are mainly due to inefficiencies in data collection and analysis. Even though the first-time fix rate was not yet visible at this point, one would expect it to be lower in comparison to after the completion of the project.

The shift handover, although red or amber, was already improving prior to the centralization. However, the fact that there was further improving to do could be related to the lower organizational commitment of employees experienced in a decentralized organization, as well as due to a lack of operational plans being tied to the overall strategic planning of the organization, leading to less coordination overall. Either the team member misses to do the handover due to a human-error or there is a communication gap due to the decentralized structure of the organization. Password compliance being amber may also have been influenced by a lack of organizational commitment of the employees and the relative lack of strategic guidance coming from the leadership of the organization.

The employee attrition rate being amber and red prior to the centralization may have been partially due to a lower amount of cross-skilling and learning spillover between the employees as the technologies were organized in silos. This in turn may have led to employee dissatisfaction. Other potential causes, according to theory, may include a lack of central strategic direction for the employees, inconsistent tooling and a high workload as a

result of a high number of operational errors, inconsistent tooling and a lack of a standardized escalation process. In addition, the regionalized resource pools and the associated lack of scalability may have increased the employee workload leading to slightly more dissatisfaction amongst the employees.

The issues mentioned above may have influenced the employee satisfaction score which was red or amber for the three months as well. Training hours completion being red could have been influenced by both the lack of organizational commitment, as well as also the lack of integration between operational plans and high-level strategic plans. Furthermore, if the knowledge repository of the organization is not centralized, this may lead to difficulties in finding the relevant training material for the employees. A stalling fresher deployment, i.e. new employee hiring, may be subsequently influenced by employee dissatisfaction emanating from the organization.

5.3. After-State of Organization (April-May 2020)

The centralization activities kicked off in January 2020 and covered the dissolving of the regional operations teams into a single centralized unit. Both Level 1 and Level 2 teams were unified, and the resource pools were mutualized globally. Members from every technology coming together meant that it became easier to standardize and to leverage the expertise amongst the resource base. In addition, management was shifted from a regional setup to a centralized setup, where each technology had their own lead, but the whole organization was managed centrally. The results of the centralization can be seen below, which were largely completed by March 31st, including the unification of the operational teams, digitized shift management and the overall ITIL alignment of the organization. Other activities such as tools rationalization and shift left between Level 1, Level 2, and the to-be-added Level O, or automation, were to be completed and kicked off later between June and September 2020.

Table 1

Area	KPI	May'20	Apr'20	Mar'20	Feb'20	Jan'20	Dec'19	Nov'19	Oct'19
OPERATIONS	Response SLA	Green	Green	Green	Green	Green	Green	Green	Green
	Resolution SLA	Green	Green	Green	Green	Green	Green	Green	Green
	Incident Backlogs	Green	Green	Green	Green	Green	Red	Green	Green
	Failed Change	Green	Green	Green	Green	Green	Green	Green	Green
	Operational Error causing Major Incident	Red	Red	Green	Green	Green	Green	Green	Green
	Complaints / Escalations (From Customers / Geography Heads)	Green	Green	Green	Green	Green	Green	Green	Green
	Volume of avoidable MIs	Green	Red	Green	Green	Green	Green	Green	Green
	Case organization FTF Rate	Green	Green	Red	Red	Green	White	White	White
PROCESS	Ticket Audit Score	Green	Green	Green	Green	Green	Green	Green	Green
	Shift Handover Compliance	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red
	Major NC In External Audits	Green	Green	Green	Green	Green	Green	Green	Green
	Minor NC In External Audits	Green	Green	Green	Green	Green	Green	Green	Green
	Average Audit rating	Green	White	White	White	White	White	White	White
	Major NC (Cybersecurity)	Green	Green	Green	Green	Green	Green	Green	Green
	Minor NC (Cybersecurity)	Green	Green	Green	Green	Green	Green	Green	Green
	Count of open high Risk	Red	Red	Green	Green	Green	Green	Red	Green
	Password Compliance	Green	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow

Table 2

Area	KPI	May'20	Apr'20	Mar'20	Feb'20	Jan'20	Dec'19	Nov'19	Oct'19
PEOPLE	YTD Attrition Percentage	Green	Green	Green	Green	Green	Red	Yellow	Red
	Attrition of grade B (YTD)	White	White	White	White	White	Green	White	White
	Employee Satisfaction Score	Green	Green	Green	Green	Green	Yellow	Yellow	Red
	Job Rotations (YTD)	White	Green	Green	Red	Green	Green	Green	Green
	Diversity Target	Green	Green	White	White	Green	Green	Green	Green
	Training Hours Completion	Red	Red	Red	Red	Red	Green	Red	Red
	Mandatory Trainings Completion	Green	Green	Green	Green	Green	Green	Green	Green
	Certifications	Green	Green	Green	Red	White	White	White	White
	Skill inventory compliance	Green	White	Red	Red	Red	White	White	White
	CV updates compliance	White	Yellow	Yellow	Yellow	Yellow	White	White	White
	Fresher Deployment	Red	Red	Red	Red	Red	Red	Red	White
	Sapience – Hours accounted	Green	Green	Green	Green	Green	White	White	White
	Sapience - Active Users	Red	Red	Red	Red	Red	White	White	White
	Sapience – Hours Unaccounted	Red	Red	Red	Red	Red	Green	White	White
FINANCIAL	FTE Released (YTD)	Green	Green	Green	Green	Green	Green	White	White
	ARVE	Green	Red	White	White	White	White	White	White
	MTS	Green	Green	White	White	White	White	White	Yellow

Figure 8. KPI actuals after centralization

After completing the centralization, the organization saw improvements for the 'Operations' KPIs. This was reflected in both response and resolution SLA which increased and remained green after the centralization was completed. The improvement was also seen in the incident backlog which was kept green ever since December 2019. Complaints and escalations from customers had also remained green. Interestingly, the number of major incidents had increased slightly right after completing the centralization and was red for April and May. The data from April and May finally reflects the first-time fix data and shows a major improvement from the beginning of the measurement in January. When it comes to 'Process', there is even a small improvement in the ticket audit score, even though it has been green since October 2019. Shift handover compliance has remained largely the same at amber. The main improvement after the centralization can be seen in password compliance which is now green for both April and May.

The biggest changes after the centralization can be seen in the 'People' KPIs which experienced a lot of change as a result of the project. Firstly, the employee attrition rate decreased and became green. The employee satisfaction score subsequently improved and went to green also. Training hours completion for the employees also increased month over month but remained red on the dashboard. Mandatory trainings completion had improved further and remained green. Skill inventory compliance had also significantly improved after the project completion and had become green. CV update compliance KPI, although lacking data for May, indicates a slight improvement, yet remains amber. Fresher deployment KPI remained red. Sapience active users and hours unaccounted remained stable and not yet reaching amber or green, with hours unaccounted showing an improving trend after the centralization. For 'Financial', the ARVE, i.e. how many people are on the bench, was red in April, but improved back to green for May. MTS showed a general improvement from October 2019 and has been green for all the months after.

5.4. Deep Expert Interviews (What Did the Interviewees Say?)

The deep expert interviews were conducted by the author of the thesis with the regional leads of each technology, all participating in a single conference call. Those conference calls were held twice, one in May 2020 to understand the red or amber April KPI results and another in June 2020 to understand the red or amber May KPIs. The interview memos can be seen below. These also include the observations related to each response formed by the author of the thesis after the interviews had concluded:

5.4.1 May Interview Results for April Data

Operational errors causing major incidents:

Interviewee:

- *The subsequent operational errors were already discussed in a fortnightly governance call and preventative and corrective actions were identified to prevent the reoccurrence of such events in the future.*

Author's observations:

The response indicates that there is a corrective action already in place to prevent the reoccurrence of such major incidents, which is great. However, it only applies for those specific ones, for those specific customers. Major incidents can have any root cause so reducing future occurrence of those to absolute zero is nearly impossible. This KPI should be monitored for May to see if the KPI becomes green again and what actions are taken to achieve such an improvement.

Shift handover compliance:

Interviewee:

- *Shift handover compliance KPI was originally, and still is, amber due to human-error or lack of communication between different teams, especially the Application Operations team. There is an improvement action in place in the form of a centralized governance of the KPI. Further improvement actions are needed here.*

Author's observations:

There is a general corrective action in place and a push from the organization to improve this KPI. The KPI should be monitored for May to see if such a push is enough to improve this or if specific improvement actions need to be done by the teams.

Average audit rating:

Interviewee:

- *Audit rating is set to improve with an additional account being added into the scope.*

Author's observations:

There is no KPI data available for April, but if it is added in May and is green, this should not be considered for further improvement recommendations for the time being.

Count of open high risks:

Interviewee:

- *Risk1- ID sharing could happen due the limited number of licenses. This is for a currently ongoing transition. The same has been highlighted to the transition team and we have been informed to mitigate this risk.*
- *Risk2- Auto-heal has functionality only for one Unix flavor. i.e. "Linux OS", and currently not for others. OS- Issue has been taken up with RBA team and a follow-up is in progress for the resolution of the issue.*

Author's observations:

The risks have been identified and corrective actions have been taken to mitigate the risks. It is once again nearly impossible to predict when other risks will occur in the future, so this KPI should be monitored for May and see if new risks appear. The recommendations for the same could include ways to mitigate organizational risks which could bring this KPI to green.

Training hours completion:

Interviewee:

- *A structured learning and development plan has been designed as a cross-skilling program for the Case Organization. This applies for both the Level 1 and Level 2 teams. A similar plan will be kicked off in July which will help to complete the training hours and bring the KPI to green. The KPI is already improving due to a push to complete the related trainings. Case Organization Academy, same as above, is ready and to be kicked off in mid-June.*

Author's observations:

It is apparent from the interviewee's response that there is a corrective action in place to boost the training hours completion rate which is set to kick in mid-June. This should bring the KPI to green.

Skill inventory compliance:

Interviewee:

- *Case Organization resource skill database uploaded in dashboard and Skill Inventory Compliance is green for Case Organization now. To be maintained as green for the rest of May.*

Author's observations:

The interviewee's response indicates that the data upload was pending and hence the data is missing for April. If the upload has now been successful and is green for May, this indicates that the KPI should be monitored, but does not necessarily need to be considered for the recommendations.

CV updates compliance:

Interviewee:

- *This KPI has been declining due to data upload not being currently possible from the backend systems due to missing accesses to the backend tool. Manual entry can be done by the employees, but this can cause errors. Access standardization is required here for all the Case Organization to have accesses in place. Escalated to head of the Case Organization to support to drive this.*

Author's observations:

The answer by the interviewee clearly highlights why the KPI has been amber or completely missing due to a data-upload error. The issue is at least identified and escalated to the head of the organization. This should be included in the recommendations if this remains as an issue for May.

<u>Fresher deployment:</u>

Interviewee:

- *There has been a certain number of new joiners hired into the organization. The target mentioned in the Balanced Scorecard is yearly and will therefore be achieved in the subsequent months. The figure shown is cumulative and hence red for each individual month. Will be green by end of year as the numbers pile up.*

Author's observations:

The Balanced Scorecard seems to show the KPI as red due to a formatting error. Therefore, the issue is not performance-related and should not be considered in the recommendations.

<u>Sapience - Active users & Sapience – hours unaccounted:</u>

Interviewee:

- *The data available currently is as per what was included during the pilot phase. A dedicated project is running to meet Sapience toll compliance for the Case Organization. Pilot ongoing so figures only apply for a certain part of the Level 1 and Level 2 teams.*

Author's observations:

This KPI is not fully covering the organization yet and only reflects a recent pilot. Therefore, once again, this is not a performance-related issue and should not be included in the recommendations.

<u>Arve - (how many people are on the bench):</u>

Interviewee:

- *The KPI was not met due to the re-tagging for some engineers pending to the relevant projects which are ongoing with the regions. This is worked on by the regions and will be fixed soon.*

Author's observations:

This KPI has been green before and only seems to be red for April. A fix has been identified for this already. If a corrective action takes place by May and the issue is fixed, this should not be considered for the recommendations due to its one-off nature.

5.4.2 June Interview Results for May Data

<u>Operational errors causing major incidents:</u>

Interviewee:

- *One operational error occurred related to a certificate expiry issue. A health check was sent out without mentioning it. Corrective action: Entire network health check will be automated. This will be rolled out across each region. Case Organization health check reporting is being collected and analyzed centrally. Case Organization head to support driving the initiative.*

Author's observations:

The response indicates that there is a corrective action already in place to prevent the reoccurrence of such major incidents by automating the health checks throughout the organization. This would indicate that any such incidents should no longer occur. As the KPI remained red in May, there will be a recommendation included to improve this KPI for the organization going forward.

<u>Complaints / Escalations (from customers / geography heads):</u>

Interviewee:

- *One customer is missing from the escalation list for May and thus the figure is showing as zero. This is to be fixed.*

Author's observations:

This KPI was historically green and it will still be after adding that single escalation for May. There is no need therefore to include a specific recommendation for improving this KPI.

Shift handover compliance:

Interviewee:
- *Shift handover compliance was originally, and still is, amber due to human-error or lack of communication between the different teams, especially the Application team. There is an improvement due to the centralized governance of the KPI. Further improvement is needed here.*

Author's observations:

It seems the KPI is still amber between April and May. Therefore, there is a need for recommendations for further improvement here.

YTD attrition percentage*:*

Interviewee:
- *Top talent attrition data is still currently missing. To be added later. The current KPI title is being planned to be switched.*

The author's observations:

This issue with missing data is not a performance-issue and therefore does not need to be included in the recommendations.

Job rotations (QTR):

Interviewee:
- *Job rotation figures were found to be missing for May. To be added.*

Author's observations:

This issue with missing data is not a performance-issue and therefore does not need to be included in the recommendations.

Training hours completion:

Interviewee:

- *The training hours completion KPI is planned to be switched to a cumulative number YTD and considering attrition.*

Author's observations:

Even though the KPI is impacted negatively by not accounting for attrition, it is still red and there could be some key recommendations included to boost this KPI, no matter if it is reflecting the full reality currently or not.

Skill inventory compliance:

Interviewee:

- *The team is planning to check and verify the skill inventory compliance figures to ensure their correctness.*

Author's observations:

The KPI is now green and is being monitored actively by the team. There is therefore no need to build a recommendation for this KPI.

CV updates compliance:

Interviewee:

- *This KPI has been declining due to the data upload not being currently possible from the backend systems due to the missing access to the backend tool. Manual entry can be done by the employees, but this can cause errors. Access standardization is required here for the Case Organization to have access. Escalated to head of Case Organization to support to drive this.*

Author's observations:

As discussed after the April interview, this should now be included in the recommendations for further improvement as the issue persists between April and May.

Fresher deployment:

Interviewee:

- *Fresher deployment figures to be corrected for January.*

Author's observations:

As discussed after the April interview, the Balanced Scorecard seems to show the data as red due to a formatting error. Therefore, the issue is not performance-related and should not be considered in the recommendations.

Sapience – hours unaccounted:

Interviewee:

- *Sapience hours unaccounted to be reduced by team.*

Author's observations:

This KPI is not fully covering the organization yet and only reflects a recent pilot. Therefore, once again, this is not a performance-related issue and should not be included in the recommendations.

FTE released (quarterly):

Interviewee:

- *FTE released to be switched to a YTD figure. Figure to be corrected by team.*

Author's observations:

As this is a data formatting issue, and not a performance issue, this should not be included in the recommendations. It is green anyway.

ARVE:

Interviewee:

- *The ARVE was improved with the project codes being made available for the team. Resources are planned to be tagged later. A specific account will be focused on.*

Author's observations:

As discussed after the April interview, this KPI has been green before and only seems to be red for April. A corrective action has already been implemented for May and the issue is fixed. Therefore, this should not be considered for the recommendations due to its one-off nature.

5.4.3 Summarizing the Outcomes of the Interviews

The interviews covered all the KPIs from April and May that were amber, red, or if the data was missing for whatever reason. Some of those KPIs were amber, red or missing data due to a technical issue, e.g. a data upload error. In other cases, the formatting for the data was different than the KPI assumed and it accumulated in count instead of showing as a percentage. In the case of such technical issues with a known cause and fix, there is no benefit in forming recommendations. However, the interviews did reveal some cases where the KPI was amber or red due for longer and was more related to organizational performance. These cases are the ones where the organization should aim to improve its performance further after the completion of the centralization activities. Those cases were: Operational errors causing major incidents, shift handover compliance, count of open high risks, training hours completion and CV updates compliance. Those will be considered for the final recommendations later on. Other recommendations not mentioned by the interviewees will be covered in Section 6.

6 Implementation

This section summarizes and compares the KPIs set by the organization to the actual results of the centralization project and determines in which elements of the organization did the centralization succeed and where did it not succeed. More importantly, this section aims to answer the fourth research question: "Should all layers of an IT support organization be centralized?" by combining the KPIs which failed or kept failing after the centralization, including the results of the deep expert interviews, with recommendations based on the findings from the studies as a part of the literature review from Section 4. Those recommendations cover the decision of whether some of the elements of the organization should have been centralized in the first place and if some other actions besides decentralizing should be taken to make KPIs green. The recommendations are aimed at the KPIs where the regional leads could not identify enough corrective actions and where the literature review gave some further recommendations.

6.1 KPI Goals vs. Outcome

Did the organization reach its goals when it comes to the KPIs? How does the literature review support this trend?

6.1.1 Positive Outcomes

For 'Operations', the organization reached its KPIs by maintaining a steady, green, response and resolution SLA throughout the project and even slightly improving them. The literature review indicates that centralizing the organization should lead to improvements in resolution time due to standardization in SLAs and the overall escalation process. The incident backlog, although slightly increasing, managed to be kept green even after the centralization. There is still room for improvement, and it will also be considered in the recommendations. The project also improved the overall first-time fix rate moving it to green in the final months. The same trend is confirmed by the literature review for centralized organizations. For 'Process' the key success areas were the ticket audit score improving and remaining green, the average audit rating for the organization being green in May 2020, as well as the password compliance becoming green. The literature review mentions centralized organizations as having more consistent tooling and technology, as well

as a higher level of organizational commitment which would seem to be aligned with the gained results.

The centralization had the largest impact for 'People' with the key positives being the year to date employee attrition becoming green, the employee satisfaction score reaching green, mandatory trainings completion rate remaining green and improving, skill inventory reaching green, and the hours accounted for the Sapience tool being maintained green. This once again reflects the higher level of organizational commitment and the ability to integrate high-level organizational strategy with operational plans. For 'Financial' the organization reached its KPI when it came to turning MTS KPI green.

6.1.2 Negative Outcomes

For 'Operations', the organization did not manage to reach the KPI for operational errors causing major incidents and it remained red after the centralization. The corrective action set by the organization was to automate the entire network health check and roll it out across the organization to avoid similar operational errors from recurring. The KPI for volume of avoidable major incidents was also not reached as it was red in April. The incident backlog, although green, was still higher than before the centralization took place. A concrete corrective action was missing for this as per the deep expert interviews.

Not all the KPIs were reached for 'Process' either as the project seemed to not yet have a visible impact on improving the shift handover compliance which remained amber. This was said to be due to human error and a lack of communication, and no corrective action was yet decided by the organization. Open high risk KPI also became red once or twice after the centralization. Corrective action was put in place centrally for the lacking feature for auto heal. The other high risk was addressed with the transition team regarding the limited licenses and mitigative actions were put in place accordingly.

For 'People', the failed KPIs included training hours completion, which remained red. There was a corrective action put in place in the form of a cross-skilling program for the employees which is due to kick off in mid-June. CV updates compliance remained amber throughout and both Sapience active users and hours unaccounted remained red. The lack of CV updates compliance was due to the organization lacking access to the backend tool and the resulting data upload errors. Manual entry was highlighted as a potential workaround which included the risk of human error. Access standardization was highlighted as the corrective action here. The Sapience tool is currently in pilot phase and the data applies only for a small segment of the Level 1 and Level 2 teams and hence doesn't

yet reflect the true picture. The compliance can only be assessed once the data covers the full employee base. For 'Financial' the KPI was red for April due to missing project code for the tagging of resources which was resolved by May accordingly.

6.2 Forming the Recommendations (Theory + Deep Expert Interview Findings)

Operations:

The corrective action for reducing the operational errors causing major incidents, being automation and further data analysis, reflects the typical strengths of a centralized organization mentioned in the SWOT in Section 4.2 as it shows that the organization is now capable of centrally reducing operational errors due to efficient data collection and analysis, as well as through the provision of consistent tooling and technology, including automation, throughout the organization. However, according to the literature review, the centralized structure of the organization can lead to cognitive overload for the management of the organization which leads to reduced organizational learning and a potential increase in operational errors in the future.

The recommendation for further development here is therefore to reduce the cognitive workload of the management of the organization by assigning a separate team to work with the front-line teams, Level 1 & Level 2 etc., to resolve day-to-day operational issues. This would leave more time for the management of the organization to focus more on strategy, and the assigned team would have the authority and capacity to identify potential structural and process-related flaws within the organization and to assign the correct individuals to fix those. The decision-making authority would essentially be shifted lower in the organizational hierarchy which in turn would reduce the cognitive workload of management and allow organizational learning to take place. Mistake proofing mechanisms could also be put in place by the organization to prevent these operational errors from reoccurring.

As the incident backlog was initially missing a common initiative for correcting it, the recommendation based on the literature review would be to assign a separate team to work specifically on resolving the backlog for all the customers or to coordinate the resolution of the backlog. This could be an initiative either in each account team which is then monitored centrally, or central resources could be assigned to perform those actions. The reason for this recommendation is that research indicates that centralization tends to lead to

a lack of focus on specific tasks which leads them to pile on as the organization tends to focus only on the high-priority tasks which are urgent.

Although not strictly measured in this project, centralized decision-making can lead to reduced innovation and creativity within the operational teams as it reduces the amount of free-flowing communication between teams to share tips and tricks to resolve tickets. The literature review indicates that this will keep the resolution time for tickets higher than it should be. The front-line teams tend to have a better view of the types of issues the customers have and the unique ways of how to resolve those in comparison to the management of the organization. The recommendation here would be to set up recurring, free-flowing "tips and tricks" – sessions between the customer-facing teams, both Level 1 and Level 2, to discuss best ways of resolving recurring issues for the customers. The central knowledge base could then be updated accordingly. This is one of the ways to increase spontaneity and to reduce the hierarchical setup of the centralized organization. Some of the decision-making would essentially be shifted from the management to the front-line operations.

Process:

The shift handover compliance was also missing a clear organizational initiative. The reason for this was cited as a lack of communication between the teams and some human errors. The good news is that organizational centralization enables the integration of high-level strategic plans with operational plans and this allows the management of the organization to enforce an improvement initiative for the shift handover compliance. However, this should be done using inclusive and participatory practices and should be rewarding and of value for the teams participating in the initiative. The literature review states that the need for such practices arises from the tendency to decouple ideas and individuals in a centralized organization which causes them to feel left out from decision-making.

There is no further improvement action that can be identified for avoiding the currently spotted high risks, but the literature review does state an obvious risk with centralizing an organization. If the organization's operations are in a single location, then any outage of the single site will impact all the customers of that organization. The recommendation here is to be mitigate this by locating the operations in multiple sites or having a contingency plan in place. There should ideally be a maintaining of load balance between the main location and the other to ensure a smooth failover (Kolkata and Mumbai). Furthermore, there should be regular sessions held with the operational teams to identify potential risks and to plan how to mitigate those. That initiative could once again be monitored centrally.

People:

There was a solid corrective action, or initiative, put in place already by the organization in the form of the employee cross-skilling program to improve the training hours completion. The research from the literature review also supports this initiative as it indicates that centralization allows for cross-skilling and learning spillover between teams. CV updates compliance could be improved with providing the organization with access to the backend system to retrieve the data. A recommendation meanwhile would be to allow the employees of the organization to update it manually as the research showed that employees in a centralized organization had a higher level of organizational commitment due to increased job feedback and the resulting increase in job satisfaction.

Financial:

The ability to tackle the single occurrence of the ARVE KPI failure which was due to the missing project code showed how committed the centralized organization is. Such commitment can be maintained by the organization by ensuring that the employees are a part of the strategy and decision-making process of the organization. The improvement in ARVE shows the scalability and resource efficiency that a centralized organization allows. As there isn't much of a decline in financial performance after the centralization for the organization, the recommendations around financials could be general "to be aware of" items mentioned in the literature review such as the potential increase in the number of operational errors and single site outage leading to increase in the number of penalty payments to customers. In addition, the organization should be aware to not establish their operations in high-cost areas and should ensure prior to undertaking such projects that the outcome of the centralization is an addition of 10% to the market capitalization or profits of the organization or the company.

Summarizing the Recommendations:

In summary, there should be a shift-down of decision-making in the organization to reduce the cognitive workload of management in order to increase organizational learning. The manager of the organization should assign a team to control daily operational performance, the processes within the organization and to fix any structural flaws within the organization. A central initiative should be kicked off and a separate team should be assigned to work on the incident backlog to really target low-priority tickets, or alternatively

this initiative should be handled within the account teams by assigning resources to address this. The free flow of ideas should be encouraged by the organization by setting up regular idea-sharing forums between the account teams and decision-making should be shifted to the resolving teams in terms of using personalized approaches to resolving tickets. Too much standardization may be keeping the resolution time higher than it should be.

An improvement initiative is to be initiated for improving the shift-handover compliance and other similar issues by using inclusive and participatory practices and by making the employees feel part of the decision-making process. Any site outage risks should be mitigated with an appropriate contingency plan or by having a multi-site setup whilst maintaining load balance. The increase in employee organizational commitment due to the centralization and job feedback is expected to improve the manual CV updates compliance.

To summarize, the organization could reap the benefits of both centralized tooling, processes and economies of scale, whilst shifting the decision-making lower in hierarchy to enable organizational learning and innovation when it comes to resolving issues for the customers, whilst simultaneously keeping the organization geographically separated to avoid site outage impacting all operations. This way, the organization should aim to keep the systems, processes and tools centralized, whilst retaining a level of physical decentralization and more decentralized decision-making.

7   Discussions and Conclusions

This section describes the presentation created by the author of the thesis to the head of the Case Organization which took place on the 20th of July 2020 (Appendix 1). It describes the structure of the presentation and displays the memo of the presentation with a focus on the recommendations and the feedback coming from the head of the organization regarding each recommendation. It also shows the feedback of the head of the organization when it comes to the concluding points of the presentation.

7.1   Presentation of Recommendations to Management

The recommendations were presented to the head of the Case Organization on July 20th in the form of a Microsoft Teams meeting due to him being in Asia and the author of the thesis being in Finland. Some of the regional leads also attended the meeting. The author had prepared a PowerPoint presentation for this session to display the recommendations in a clear format to the head of the organization (Appendix 1). The first section of the presentation consisted of the author listing the four research questions used in the thesis project, as well as a brief description of the study method.

This was then followed by a slide summarizing which KPIs the organization had reached during the project months and which activities had led to this. In addition, the author showed some findings from the literature review that correlated with each positive outcome of the centralization project. The second section covered the recommendations formed by the author as explained in Section 6, split into Operations, Process, People and Financial. Each of the KPIs were listed and the research findings and the resulting recommendations were listed under each KPI. The recommendation for improving the training hours completion and the financial recommendations were self-explanatory and there was no feedback given for those, but they were still included on the presentation. Hence, they were not included in the memo shared below. The final section of the presentation summarized the recommendations by the following phrases:

- Reap the benefits of centralized tooling, processes and economies of scale, whilst shifting the decision-making lower in hierarchy to enable organizational learning and innovation when it comes to resolving issues for the customers.

- Simultaneously keep the organization geographically separated to avoid site outage impacting all operations.

These phrases were followed by displaying the 'Shared Service' model as shown in Figure 5. The idea of this was to portray how the organization should aim for including aspects of both a centralized and decentralized organizational structure going forward.

7.2 Feedback & Further Recommendations

The summary for the meeting to present the recommendations via Microsoft Teams on July 20th can be seen below:

7.2.1 Memorandum from the Presentation

Operational errors causing major incidents (several in April/May 2020)

Finding:

The centralized structure of the organization can lead to cognitive overload for the management of the organization which leads to reduced organizational learning and a potential increase in operational errors in the future.

Recommendation:

Assign a separate team to work with the front-line teams, Level 1 & Level 2 etc., to resolve day-to-day operational issues and to identify potential structural or process-related flaws within the organization and to assign the correct individuals to fix those. Mistake proofing to act as a barrier to stop recurring errors.

Feedback from the head of the organization:

- There is too much workload on managers currently and this is being addressed by managerial realignment which is to be done by August.
- This includes reviewing the span of control of managers.
- There is an improvement action ongoing to ensure mistake proofing by reviewing the behavioral aspects of people causing operational errors.

Incident backlog (close to becoming amber in April/May 2020)

Finding:

Centralization tends to lead to a lack of focus on specific tasks which leads them to pile on as the organization tends to focus only on the immediate high-priority cases, sustaining customer dissatisfaction.

Recommendation:

Assign a separate team to work specifically on resolving the backlog for all the customers or to coordinate the resolution of the backlog. This could be an initiative either in each account team which is then monitored centrally, or central resources could be assigned to perform those actions.

Feedback from the head of the organization:

- Backlog is not seen as an issue currently, but it is being controlled by an internal review process.
- Daily status reports are in place, but only partially. This needs to be improved.
- Daily review with the operational teams is in place with the regional leads to control this.

Ticket resolution time & quality (green currently, but accounting for any future issues)

Finding:

Centralized decision-making can lead to reduced innovation and creativity within the operational teams as it reduces the amount of free-flowing communication between teams, e.g. to share tips and tricks to resolve tickets. The literature review indicates that this will keep the resolution time for tickets higher than it should be. The front-line teams tend to have a better view of the types of issues the customers have and the unique ways of how to resolve those.

Recommendation:

Set up recurring, free-flowing "tips and tricks" – sessions between the account teams, both Level 1 and Level 2, to discuss best ways of resolving recurring issues for the customers.

Feedback from the head of the organization:

- Transformation team is driving this to keep the teams engaging in business process re-engineering.
- Recommendation is appreciated and this will be further enforced.

Shift handover compliance (amber or red throughout the project)

Finding:

Organizational centralization enables the integration of high-level strategic plans with operational plans and this allows the management of the organization to enforce any improvement initiative. However, centralized organizations tend to experience a decoupling between ideas and individuals due to lack of open strategizing. A study found that there was an increase in motivation amongst the employees when working towards goals that were set in a participatory manner and it increased their commitment towards those goals.

Recommendation:

Enforce an improvement initiative for shift handover compliance amongst the teams. This should be done using inclusive and participatory practices and should be rewarding and of value for the teams participating in the initiative. The teams need to see how their actions tie into the strategy of the organization.

Feedback from the head of the organization:

- There is an initiative in place to address this on team-level.
- Change Agents group is created to ensure compliance levels are met.

High risks (latest examples in April 2020)

Finding:

Research indicates that the key risk associated with a centralized organization is the outage of the one and only site of operations.

Recommendation:

Mitigate this risk by locating the operations in multiple sites or having a proper contingency plan in place in case of site outage. Ensure load balance between main location

and the other to ensure a smooth failover (Kolkata and Mumbai). Risk sessions with operational teams to learn to identify risks.

Feedback from the head of the organization:

- Load balance with 70/30 split is being ensured with a BCP process which was recently created.
- BCP will be released.
- Fortnightly sessions are in place with the teams to identify potential risks.

Final word from the manager of the organization, the head of the Case Organization:

Thank you for sharing your feedback – I am really glad that the team has given all the inputs needed to complete your thesis – this is very good information for me as delivery leader to leverage & take the services to next level.

Some of your observations are valid & the team is having a strong action plan so we don't become complacent by moving to the centralized model – our balance score card will keep all of us honest & the visibility to our performance.

7.2.2   Analysing the Feedback

The presentation was received well by the participants of the meeting. Both the background and the summary of the presentation were understood by all. However, there was some confusion as to why the author had formed recommendations for KPIs that were green already, but this was clarified by the author by explaining that some of the recommendations were there to avoid any future issues typical to centralized organizational structures.

When it came to the reduction of the number of operational errors, the organization had already initiated a plan to conduct managerial realignment and to review the span of control of managers. On top of that, the organization has an improvement action in place to review the behavioral aspects of employees causing the operational errors. These improvement actions at least by first look are according to what was recommended. Incident backlog is not being specifically targeted but is being reviewed on a regular basis with the operational teams, which would mean that the KPI is under control on an operational level

and any future issues can be mitigated. The head of the organization mentioned the daily status reports as not covering all the accounts and thus would need to be expanded wider.

This would mean that the corrective actions are already in place according to the recommendations once again, assuming the organization is proactively monitoring backlog on account-level. Improving ticket resolution time and quality was said to be addressed by having the operational teams continuously engage in business process re-engineering. If this means to participate in decision-making more, this is a good first step. The head of the organization mentioned further emphasis as being needed to improve the communication between the operational teams. The recommendation is therefore partially addressed and will be addressed further in the coming months.

When it comes to the process-related recommendations, the organization had a clear improvement plan in place to address the shift handover compliance by assigning Change Agents to within each operational team to monitor the compliance. Whether this is done in a participatory manner which includes the employees seeing how their actions tie into the strategy of the organization remains to be seen and should therefore be enforced further. To prevent and mitigate risks, the organization has already ensured enough load balancing between the sites of operations and will control this with a business continuity plan and the associated update process which will be released later in 2020.

In addition to this, there is already a fortnightly risk identification set up with the regional leads and the Operational Leads of each account to identify potential account-level risks. Therefore, the recommendations regarding high risks are already followed by the organization. When it came to the recommendation for improving the training hours completion for the employees, this was self-explanatory and was not separately discussed as the organization has already been running the cross-skilling program for some time. Financials were only briefly reviewed but no comments were made by the head of the organization for the recommendations as they were viewed as clear enough and very generic.

7.3 Reflection on Personal Development

This thesis let me improve my thesis-writing skills and taught me how to perform participatory action research by collecting data with the Balanced Scorecard, conducting a literature review and deep expert interviews, and combining all of these to form the recommen-

dations for the head of the organization. What I was specifically keen to learn was the application of theory to a real-life project and to observe how the leadership of the organization acknowledged it and gave feedback on it. In addition to the data collection and research, the thesis project allowed me to learn more about the Case Organization as a whole in terms of the various ongoing improvement initiatives and the structure of the teams, and to form an understanding of the benefits of centralizing a support organization such as the one studied. It effectively helped me to form a clear opinion, supported by research, regarding an ideal structure for a customer IT support organization. The desired outcomes of determining whether a centralized governance and operations are a desirable state for the organization and the formation of concrete recommendations on how to improve the organization going forward were sufficiently achieved as a result of carrying out this thesis project and the recommendations were appreciated by the management of the organization. All the four selected research questions were answered within the thesis project as well, using the Balanced Scorecard, the findings from the literature review and via the deep expert interviews.

What could have been differently was to have the possibility to anticipate the upcoming organizational restructuring earlier and to be involved in the selection of the performance measurement tool in order to display to the head of the Case Organization other alternatives to choose from. Furthermore, by participating in the project during the preparation-phase, I could have had a chance to recommend some other KPIs to be measured during the project based on the literature review findings. The deep expert interviews conducted could have included KPIs that were close to breaching, not just the red and amber ones from April and May. Those trends could have then been examined further and explained to the head of the Case Organization when presenting the recommendations. Nevertheless, the recommendations included the close-to-breaching KPIs also and so those were covered from that standpoint.

The recommendations themselves could have been more specific and included a mention of the specific teams that would be impacted by those recommendations. The thesis project seemed to instead address the entire organization without necessarily delving into enough such detail. Although, this would have also meant more workload for me and may have ended up making the project too extensive. To delve into detail, and to manage the workload simultaneously, could have been achieved by making the research topic more specific, e.g. by looking at how centralizing a knowledge repository improves resolution time for the organization. However, the issue with this would have been a possible lack of related research found within the literature review.

7.4 Conclusion

In conclusion, the thesis involved a successful literature review leading to the collection of clear pros and cons associated with the use of a balanced scorecard and a listing of the strengths, weaknesses, opportunities and threats for centralization. The SWOT was useful in determining what the organization had to take precautions for when centralizing, what opportunities they could look out for and what were the general benefits they could expect from the ongoing centralization project. The balanced scorecard KPI data gave a clear indication as to which KPIs were still not green after the centralization and the deep expert interviews gave an indication of which KPIs were already having an improvement initiative in place and which ones were still lacking one.

The SWOT analysis combined with the literature review and the deep expert interviews allowed for the author to construct solid recommendations, although perhaps a bit general, that were well received by the head of the Case Organization. With all the above considered, the thesis managed to answer all the four research questions as described in Section 1.3. The head of the organization seemed to have a solid plan already in place to address most of the recommendations. However, the organization needs to ensure to improve some of the daily status reporting, allow free communication between the operational teams to increase creativity and innovation within the organization and to ensure that any improvement activity is completed in a participatory manner with the employees in order to maintain organizational commitment and motivation amongst the teams.

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Appendices

Appendix 1. Presentation Slides for Management

Points of improvement & recommendations

Operations:

- **Operational errors causing major incidents (several in April/May 2020)**
  - <u>Finding</u>: *The centralized structure of the organization can lead to cognitive overload for the management of the organization which leads to reduced organizational learning and a potential increase in operational errors in the future.*
  - <u>Recommendation</u>: Assign a separate team to work with the front-line teams, Level 1 & Level 2 etc., to resolve day-to-day operational issues and to identify potential structural or process-related flaws within the organization and to assign the correct individuals to fix those. Mistake proofing to act as a barrier to stop recurring errors.

- **Incident backlog (close to breaching target in April/May 2020)**
  - <u>Finding</u>: *Centralization tends to lead to a lack of focus on specific tasks which leads them to pile on as the organization tends to focus only on the immediate high-priority cases, sustaining customer dissatisfaction.*
  - <u>Recommendation</u>: Assign a separate team to work specifically on resolving the backlog for all the clients or to coordinate the resolution of the backlog. This could be an initiative either in each account team which is then monitored centrally, or central resources could be assigned to perform those actions.

- **Ticket resolution time & quality (green currently, but accounting for any future issues)**
  - <u>Finding</u>: *Centralized decision-making can lead to reduced innovation and creativity within the operational teams as it reduces the amount of free-flowing communication between teams, e.g. to share tips and tricks to resolve tickets. The literature review indicates that this will keep the resolution time for tickets higher than it should be. The front-line teams tend to have a better view of the types of issues the clients have and the unique ways of how to resolve those.*
  - <u>Recommendation</u>: Set up recurring, free-flowing "tips and tricks" – sessions between the account teams, both Level 1 and Level 2, to discuss best ways of resolving recurring issues for the clients.

Process

- **Shift handover compliance (amber or red throughout the project)**
  - <u>Finding</u>: *Organizational centralization enables the integration of high-level strategic plans with operational plans and this allows the management of the organization to enforce any improvement initiative. However, centralized organizations tend to experience a decoupling between ideas and individuals due to lack of open strategizing. A study found that there was an increase in motivation amongst the employees when working towards goals that were set in a participatory manner and it increased their commitment towards those goals.*
  - <u>Recommendation</u>: Enforce an improvement initiative for shift handover compliance amongst the teams. This should be done using inclusive and participatory practices and should be rewarding and of value for the teams participating in the initiative. The teams need to see how their actions tie into the strategy of the organization.

- **High risks (latest examples in April 2020)**
  - <u>Finding</u>: *Research indicates that the key risk associated with a centralized organization is the outage of the one and only site of operations.*
  - <u>Recommendation</u>: Mitigate this risk by locating the operations in multiple sites or having a proper contingency plan in place in case of site outage. Ensure load balance between main location and the other to ensure a smooth failover. Risk sessions with operational teams to learn to identify risks.

People

- **Training hours completion (red throughout the project)**
  - <u>Finding</u>: *The research from the literature review supports the current initiative as it indicates that centralization allows for cross-skilling and learning spillover between teams.*
  - <u>Recommendation</u>: Continue running with existing cross-skilling program.

Financial (to be aware of)

- *Lack of organizational learning leading to increased number of operational errors and penalties.*

- *Single site outage and the resulting penalties.*

- *Establishing the site in a high-cost location.*

- *Ensure centralization adds 10% to the market capitalization or profits of the group or organization.*

Summary:

- Reap the benefits of centralized tooling, processes and economies of scale, whilst shifting the decision-making lower in hierarchy to enable organizational learning and innovation when it comes to resolving issues for the clients.
- Simultaneously keep the organization geographically separated to avoid site outage impacting all operations.

Shared Service Benefits

Decentralization
Higher Costs
Variable Standards
Different Control Environments
Duplication of Efforts

Business Units Retain Control
Recognition of Local Priorities

Shared
Lean, Flat Organization
Independent of Businesses
Identification of Efficiencies Between Business Units
Understanding of Group Functions and Missions
Dissemination of Best practices

Common Systems & Support
Efficient Knowledge Transfer, Standards & Tools
Economies of Scale

Centralized
Unresponsive
No Business Unit Control of Central Overhead Costs
Inflexible to Business Unit Needs
Disconnect from Business Units