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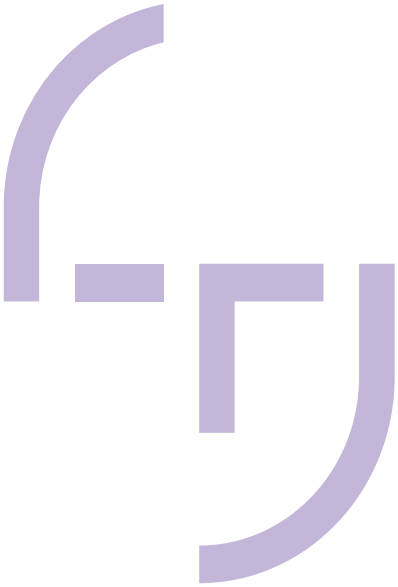

Post-sales Strategy to Achieve Customer Satisfaction for Hiava Oy

Order Execution Process

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BACHELOR'S THESIS
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Bachelor's Degree Programme in International Business

ABSTRACT

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This thesis aims to formulate a comprehensive and informative order execution procedure for Hiava - an engineering company providing supportive solutions and tools for agile and effective supply chain and logistics management. The company was a start-up at the beginning of approaching potential customers stage and demands a proper procedure to implement upcoming orders from customers.

The thesis researched about the methodologies and theories that can help to build up a procedure that not only benefits the current implementations but also makes space for extensive future development. Different methodologies have been combined together to draft a complete procedure for Hiava.

The commissioning company provided the writer with a case study and two discussion meetings with the CEO. The case study demonstrated how Hiava has been fulfilling its orders after the deal has been closed until now. The interview with the company CEO opened into more comprehensive understandings on Hiava's business process, strategy, vision and culture. After all, the interview, secondary data from the presentation and understanding of the writer as an intern at the company were facilitative factors for a suitable procedure to be formulated.

Varieties of approaches were applied for Hiava to effectively execute its orders. The procedure has been made with exemplary templates and suggestions of deployable tools, adding to that is the cautions and advice for the company to take notice. Some theories were clarified into detailed action plan, while some are relatively generic awaiting for another expansion research. Depending on Hiava needs and situation in the future, further analysis and implementations, for example, on the project measuring tools and surveys on process satisfaction of the internal stakeholders can be exploited to help the business retain success and reach more attainments. Meticulous strategic plan was also made available for future internal process renovation, which potentially leads to financial peak and excellent company reputation in the eyes of the potential customers.

Key words: order execution procedure, project management, Lean Six Sigma, BSC Framework, service design method cards

CONTENTS

ABBREVIATIONS AND TERMS

BSC	Balance Scorecard Framework
CEO	Chief Executive Officer
RFQ	Request for Quotation
SaaS	Software as a Service

1 INTRODUCTION

As when the deal has been made, the service provider wins the customer and starts the service-delivery stage, the business relationship shifts to a new phase, in this thesis, is called “post/after-sales” or “order execution” phase. Needless to say, post-sales service and activities play a strategically pivotal role in deciding whether the deal is a success for both the client company and service provider company (Legnani, Cavalieri & Ierace 2009). Following Patrick (2023), after-sales process is an indispensable part for retaining customers, raising brand awareness, contributing to product development and stimulating target customers and the whole sales procedure. The after-sales stage in a SaaS/solution consulting company, however, must be even a bigger concern as the efforts for activities such as delivery, installation, maintenance and customer support for the service are to be deeper emphasized. (Patrick 2023.)

The commissioner company, as a start-up at the stage of significant development, should perceive after-sales service as entrepreneurial opportunities for innovation and profitability (Khaksar, Nawase, Jahanshahi & Kamalian 2011, 5153). Following the deal of intricate products has been made, depending on the level, the expertise of trained personnel might be intensely needed for installation, consistent post-sale support, and occasional enhancements (Cavusgil & Zou 1994, 16). In addition to that, the company’s internal stakeholders including execution and sales and marketing teams need to be in a tight-knit unity not only to implement the current project but also become more compelling to subsequent potential customers; for example, learning from how the customers buy and tailor the most engaging and pertinent RFQs for the wider range of prospective customers (Lingqvist, Plotkin & Stanley 2015, 5).

At the moment, the commissioner CEO’s interest corresponds to the writer’s enthusiasm and view towards the company’s growth on the topic. As an intern at the commissioner company, the writer deems it should have a concrete and appropriate approach and procedure for the post-sales phase in which, deeper discussion about the project matters and intensive cooperation amongst internal stakeholders are emphasized.

By suggesting three main methodologies for project management and order execution phase, the writer will interpret the concepts of each one and how they can be applied to the practicality of the company and its projects. These methodologies can guide the company order execution stage towards a structured and systematic working procedure, in which generates productivity and perceived value for the service provider itself and its customers. When successfully combined and implemented, the suggested working method will establish a promising and scientifically sound precedent for the commissioning company's future endeavors.

2 THESIS PLAN

This thesis plan consists of the main topic, coming along with the main and sub-research questions specifying the thesis objectives and purpose. Subsequently, main theories and methodologies used in the researching field of the thesis are presented in their fullest. The last sections encompass the working method and data collection as well as the thesis process.

2.1 Thesis topic

The thesis is all about designing a concrete and applicable procedure for Hiava after the cooperation agreement between the company and its customer companies has been made. The company, at the moment, is still at the start-up phase, the internal processes relating, for instance, sales, marketing planning or product design are still in the development phase and are welcoming nearly all of the contributory ideas from its staff, advisors as well as customers.

At the time this plan is being drafted, the company's four main services have been developed to the nearly perfect stage. There have been several projects successfully completed, some are still in negotiations, and some are approaching potential customers, and there are a few pilot projects being implemented at the same time.

The company would significantly raise its brand awareness by joining LOGY (Finnish Association of Purchasing and Logistics) Conference as the presenter as well as have its own stand in the coming industry-related seminars in the autumn 2023. Adding to that, Hiava strategy to be a sponsor in other events would help to gain its reputation in the industrial sectors. By the fact that more professionals will hear more and are better aware of Hiava's brand name, the customer numbers are expected to advance following the autumn period, it is necessary for an order execution and post-sales project management procedure to be made. The process aims to set an exhaustive working method for the coming projects so that it helps commissioning company to save costs, assign work and tasks suitably and promote positive information exchange amongst

different stakeholders. However, the process should not be seen as a “rigid” set of workflows but rather an initial base which should be adapted to the company’s contemporary dynamics and its evolving projects at that time.

The eventual goal of this thesis work is to have a process that is creative, stimulating and constructive for the internal co-operation amongst different departments to meet the satisfaction of the customers. At the same time, the company is also striving for the “leanish” approach from sales to production process where they concisely identify customer’s needs and wants and effectively deliver the functions that work and generate values (Teemu 2023). It will be a single procedure constituted from different techniques so that a robust and comprehensive working environment can be ensured. The created process will also be designed to accommodate to modifications and enhancements following company’s future variations. (Hammer 2014, 11-12.)

2.2 Purpose, objectives and research questions

The final outcome of the thesis is to introduce a working plan for the order execution process, in which specifies the methods, tools and practices that are utilized at this stage. Thus, the thesis will answer the following question:
“What is the order execution process after the deal has been closed with Hiava Oy as the main solution provider?”

In order to clarify the theories into further details, the main topic will be also supported by the sub-questions:
“What are the appropriate methodologies and tools used in the order execution process?”
“Which persons within Hiava staff are directly involved in the process and their primary duties until the solution is ready to be implemented for the customer?”

By answering the research questions, the company should be cleared about what needs to be done in order for a solution/the solutions are capable to resolve the customers’ business problems and generate healthy profits. The process should guide Hiava to work effectively in both the cost and efficiency man-

ner. The outcome is to accomplish customer satisfaction, promote retentions and acquire new customers for constant growth in the future.

2.3 Theories and literature review

This chapter collects research paper and books and explains further the theories and practicalities of the three main approaches in this thesis. Starting with Lean Six Sigma, then Balanced Scorecard framework (BSC framework) then Service Design Method Cards. Regarding how the tools can be applied to the actuality at Hiava Oy, the reader can relate to the latter parts of the thesis.

2.3.1 Lean Six Sigma

Firstly, let us commence by clarifying "lean", “six sigma” and "lean combined with Six Sigma (Lean Six Sigma)" modes in their elemental and closest-to-the-topic foundation.

a) Lean

Simply to say, the primary goal of the lean approach is to achieve ongoing enhancements and cost reduction by eliminating unnecessary tasks (activities that don't add value) and enhancing process effectiveness. Lean has introduced various techniques such as 5S, Just in Time, Jidoka, Heijunka, Kaizen, among others. (Taghavi & Beauregard 2020, 809-810.) Lean is recognized as a competitive edge and is regarded as a pivotal strategy for enhancing profitability and customer satisfaction (Garre, Bharadwaj, Shashank, Harish, & Dheeraj 2017, 8440). The essence of the lean concept lies in the idea of accomplishing superior performance with minimal resources, that emphasizes efficiency (Ozkeser 2018, 426).

Toyota introduced a set of seven initial forms of waste in the context of lean principles. These encompass inventory, waiting, defects, overproduction, mo-

tion, transportation, and over-processing (Gay 2016). With the adoption of the Toyota production system in Europe, the eighth dimension was added: recognizing the underutilization of workers' skills and talents.

FIGURE 1. Eight types of waste in lean management

Taghavi and Beauregard (2020, 810) interpret the seven components as the followings. Inventory refers to the accumulation of raw materials and work in progress. Waiting arises when a worker is unable to progress to the subsequent task in a process, resulting in idleness or reduced pace while awaiting completion of the preceding step in the manufacturing sequence. Defects is the situation when products are unaligned with the specifications following customer's requirements. Overproduction entails manufacturing quantities that surpass genuine requirements, which is the least favourable form of waste. Motion denotes unnecessary movement during the manufacturing process. Transportation involves the transfer of goods between distinct sections of the factory to sustain the manufacturing flow. Lastly, over-processing encompasses actions that fail to contribute meaningful value to the end customer. (Taghavi & Beauregard 2020, 810.)

In general, lean is a culture and way of thinking that directs the manufacturer or the service provider towards satisfying customers' expectations through a precise and smooth process with the least operational cost, while at the same time,

accumulating organization knowledge and creating collective productivity. The goals are done by deep comprehension of customer's value, demand, and goals so that efficient and on-the-point solutions can be drawn up. (Shamah 2013, 7-9.). Employee development, for instance, opportunities for getting trained and well performing, is a critical factor in lean exploitation, which keeps the lean organization in stable growth and compelling in the eyes of the current and potential workforce (Lauver, Nahm, Opall & Keyes 2018, 6-7).

The basics of lean management has been justified and the coming section explains the other half - six sigma.

b) Six Sigma

Goh and Xie (2004, 236) define Six Sigma as a collection of statistical methodologies which are embraced within quality management and aimed at establishing a framework for process enhancement.

The primary objective revolves around elevating the Six Sigma performance level, referred as critical-to-quality (CTQ) metrics, which mirror customer demands. This is achieved through a variety of tools for data analysis; one of them, for instance, parts per million (PPM) of flawed items (Mitra 2004), in which, a Six Sigma level is attained when a process outputs bide at fewer than 3.4 defective PPM (Coleman 2008, 94). Nevertheless, no fixed parameter is applied to all cases and companies as well as projects, the situations are changing constantly, and hence companies need to evolve relentlessly to achieve the optimal outcomes (Arnheiter & Maleyeff 2005, 12).

There are two common methodologies in Six Sigma: Design for Six Sigma (DFSS) and DMAIC. As inferred by Tjahjono et al. (2010, 221) DMAIC is typically applied for existing processes enhancement, while DFSS is commonly employed as a navigation for forging new products and services. DFSS is defined as a method for specifying, designing, and delivering ingenious products that bring about compelling value to customers through critical-to-quality features across all primary functions (Watson and deYong 2010, 76). About utilizing the

DMAIC methodology (so to speak the design-measure-analyse-improve-control method), according to Antony (2005, 645), in a progressive manner can facilitate the consolidation of both human factors (being cultural transformation, teamwork, training, and customer-centric mindset) and process elements (being process stability and potential, variance forms as well as variance reduction) during the implementation of Six Sigma.

Within the Six Sigma framework, an organization's output value encompasses more than just quality; its extension includes factors such as availability, reliability, delivery performance, and after-market service. The Six Sigma metric is applied comprehensively, aiming for nearly flawless performance even at minimal activity levels. Furthermore, Six Sigma initiatives typically establish a structured approach to employee training, ensuring its efficacy. All employees engaged in activities that affect customer satisfaction acquire fundamental training in problem-solving skills; whilst selected employees undergo advanced training and are in charge of mentorship roles to support quality improvement projects. (Arnheiter & Maleyeff 2005, 9.)

The functionality of Six Sigma makes it a good fit to be included with lean to form an effectively long-lasting procedure for the order execution phase, in which, favour both the service provider’s long-term developments itself and the customers’ contemporary needs. More detailed explanations about the statement are conveyed in the following part.

c) Lean combined with Six Sigma

As Plenert and Cluley (2012, 16-20) stated in their book, although numerous organizations possessed highly robust strategic approaches, the two authors clarified that a prevalent absence in many strategic plans is the mechanism that effectively transforms long-term strategies into actionable annual improvement priorities; in other words, implementing methodologies as Lean and Six Sigma without strategic approach may not prompt enduring advancements and enhancements. In this section, the necessity of combining two methodologies into

a harmonic complementary system is demonstrated as an optimal way for managing improvement efforts of the project and company objectives.

According to Arnheiter and Maleyeff (2005, 16), when only Six Sigma is used, the descending of improvements could be resulted from an overemphasis on quantifiable quality increment and delivery measures, while ignoring the need to eliminate unproductive processes within the fundamental operational systems. When depending solely on lean management, improvements may be impeded owing to a concentration on improving product flow without a rigorous integration of data and statistical quality control procedures, revealing the absence of a fully scientific approach. Therefore, Ronald in his work (2010, 21-23) suggested several approaches concluded from when Lean and Six Sigma is combined:

- Engagement of top management: constant stimulation from all levels of management should be present and demonstrated through eliminating barriers, assigning in-need financial and human resources to the executives, consistently monitoring project advancement, and assuring acknowledgment and incentives for participants. The intensive change in the company's course of working; hence, is guaranteed to be in control of the principal management.
- Emphasizing on improvement, not solely training: training should be made more project-oriented rather than paper guidelines for the following grounds: instant return on financial and business result, higher level of commitment and dedication to an actual project compared to a theoretical one, radically consolidated organizational improvement. Thanks to that, improvement and financial results are immediately visible along with training efforts are accomplished.
- Adoption of the highest skilled people expertise to actualize improvement efforts: the field experts appointed can act as an exemplary order for a revolution in the organization.
- Forming the assisting infrastructure: it is necessary to find and deploy a lasting framework that efficiently and repeatedly supports and executes continuous improvement, the infrastructure is advised to have these four factors:

  - A methodical approach for addressing and solving problems: DFSS for creating new processes and DMAIC for enhancing on-going processes, as instances.
  - Working analytical tools: as for qualitative approach, interviewing, expert opinion, brainstorming, hypothesis-generation, process and value stream mapping (VSM) and cause and effect matrix can be referred; regarding quantitative techniques, some methods can be named including Pareto charting, control chart analysis, regression modeling, multi-vari studies and design of experiments (DoE). Not all, but few of the above-mentioned techniques would be clarified further and used in the case of this thesis.
  - The experts in the fields of improvement: the backbones in any improvement projects, in the leading and training roles, whose expertise is undoubtedly reliable and indispensable factor in the existing and future growth of the organization.
  - Management systems: vital but often-neglected part, comprising of information exchange, project election, project portfolio administration, evaluation, and acknowledgement and award systems. Those factors reinforce conjunction amongst various improvements intents and ensure paramount strategic objectives are strictly followed.

- Select the right projects: the ones that align with the organization's top business goals, the capacity of the existing (deployable) staff, and are beneficial for the ongoing improvement progress. An appropriate timeframe of the project implementation should be determined, usually from four to six months, so that the organization's motivation and financial status can be comfortably sustained.
- Preparing for preservation of improvement efforts since the beginning: the concerns for sustaining the forthcoming improvements should be made, to say briefly, at the strategic and tactical levels.

(Ronald 2010, 21-23.)

2.3.2 Balanced Scorecard framework (BSC framework)

It is supposed that many executives do not have sufficient comprehensions of all the components of a strategy statement, which makes it challenging for them to establish one. However, with a clear definition of what constitutes a strategy statement, two significant benefits emerge. First, the founding stage turns out to be smoother when executives have a precise goal in mind. Second, the execution stages become more accessible as the core of the strategy is possible to be effectively communicated and immersed by all members of the organization. (Collis & Rukstad 2008, 84.)

The author Mike Rukstad specified a strategy that works needs these three elements: objective - how the project will end and how long it takes to get to the finish line; scope - what the boundaries are, which parts the project frame should cover; and advantage - how the business distinguishes itself from others, why the customers are distinctly beneficial from the product, and how internal efforts should be correctly dedicated for that certain project. Nevertheless, certain trade-offs are visible depending on each organization’s orientation. Stressing on growth or size requires the profitability to come as a latter guest. Competing for cheaper prices means less emphasis on fashion or fit. Whilst scale economies have to neglect personalized ideals. (Collis & Rukstad 2008, 84-85.)

It is worth to notice the importance of rhetoric. A 35-word statement can have a significant influence on the success of an enterprise. Words are possible to prompt actions. Making the effort to produce few phrases that genuinely encapsulate a company's plan to energize and empower the workers can improve that organization's long-term financial success. (Collis & Rukstad 2008, 91.)

There is a tool set that demonstrates bonding of customer, internal process, employee and system performance while keeping eyes still at the financial performance of the organization. The tool is deemed to advance one’s long-term financial success reflecting from meticulous review of managerial and working efforts. The tool, as a framework, was introduced by Kaplan and Norton under the name “Balanced Scorecard” (BSC) (Kaplan & Norton 1996, 18-21). As Hanafizadeh and Moayer (2008, 226) stated “BSC framework creates a holistic view in the organization”. Figure 2 (drafted by Rana in her research paper,

based on the original idea of BSC) depicts those four foundational perspectives which companies can base on to define clear vision and strategy for themselves.

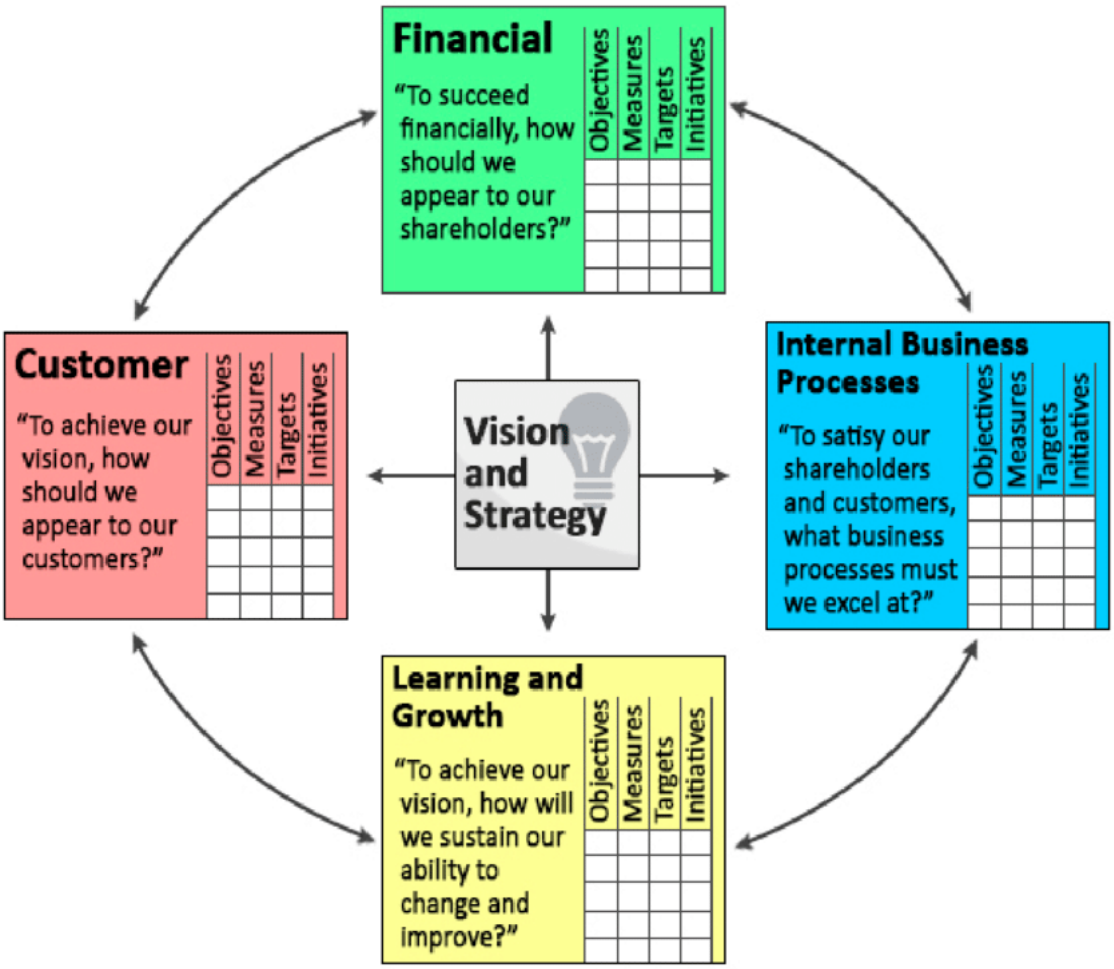

FIGURE 2. Four perspectives of balanced scorecard (Maya 2016, 69)

Based on the BSC's original aspects of vision and strategy formulation, a new set of management processes was developed and applied by many companies to manage the strategy in the longer term. The four processes include:

- Translating the vision: generic, surface goals and statements need to be split into detailed and integrated measures and objectives. So that everyone from the lowest executives to top management is able to grasp the idea and reach common unity.
- Communicating and linking: ideas about long-term strategy as well as current updates need to be evenly imparted across all management levels, departments and individuals within the organization; therefore, all the top goals are aligned from even the smallest business components.

- Business planning: appropriately dedicating resources, time and energy to relevant initiatives that align with the concerning long-term strategic goals. Added to that, priority to certain targets at certain time frames are to be defined to avoid unnecessary confuses during the execution procedure.
- Feedback and learning: the scorecards at this stage record the company's, departments and individuals' performance compared to predetermined goals for each level. Subsequently, goals adjustments can be made to adapt to a more positive learning outcome.
  (Kaplan & Norton 1996, 77)

Figure 3 summarizes all the four phases with the tick boxes to be followed.

FIGURE 3. The four processes to manage strategy of the BSC (Kaplan & Norton, 1996, 77)

An overall performance management system like BSC alone is considered not practical by Nørreklit, Nørreklit, Mitchell, and Bjørnenak (2012, 508) as it misses out strategic causality: how the objectives (the defined numbers) can be achieved through a sequence of actions. Following Lueg's research and analysis (2015, 38), strategy maps is deemed to favour communication than the sole

BSC. This application backs a more profound grasp of strategy and prudent determination from managers, and consequently, potentially accomplishes greater execution targets. Besides that, managers are possible to accord better commitment and execution support once an unambiguous comprehension of the strategy map is effected (Lueg 2015, 38). In order to avoid conflict and resistance to change, it is necessary to draw employees and middle management into the course of BSC being charted and enacted (Lueg 2015, 38).

The strategy map visualizes a framework for the organization's objectives to be conformed with the four perspectives of a Balanced Scorecard. It demonstrates the cause-and-effect associations between desired results from the customer and financial perspectives and excellent performance in crucial internal processes, which includes operations management, customer management, innovation, and regulatory and social procedures. These pivotal procedures shape and distribute the firm's value proposition to targeted consumers while also bolstering its productivity objectives from a financial respect. (Kaplan & Norton 2004, 55.)

Figure 4 illustrates a strategy map as a simple graphic. In which, strategic objectives (in the oval shapes) are bridged to one another following a logical order and cause-and-effect mechanism.

As interpreted by the author, enhancing efficiency in the components of the Organizational Capacity aspect (the last row) pushes the enhancements in the Internal Process of the organization (second from the bottom), the successful implementation of which will be followed by the accomplishments in the Customer and Financial perspectives (the two above rows) in the enterprise’s longer term. (Balanced Scorecard Institute, 2019.)

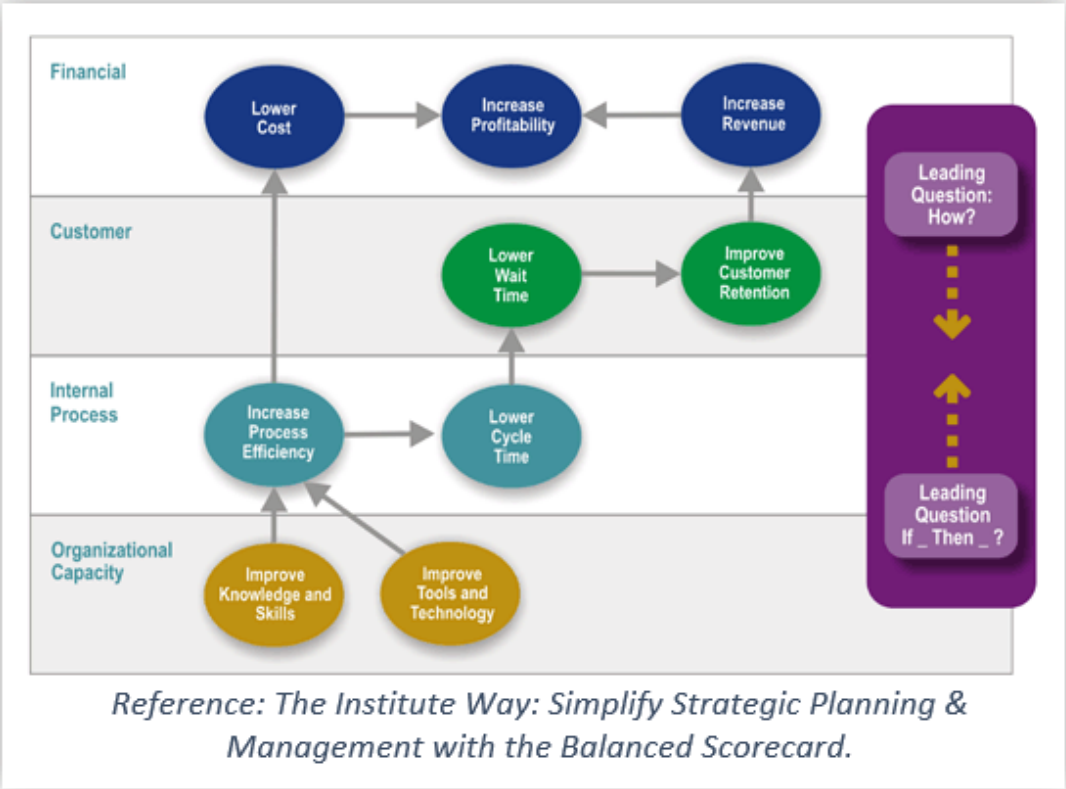

Figure 4. Simplified Strategic Map (Balanced Scorecard Institute, 2019)

As strategy map is applied, each objective should have at least one measure or Key Performance Indicator (KPI) spotted and monitored continuously. These KPIs assess how things proceed toward targeted goals. Adding to that, those measurements are evidence of what achievements the organization can reach when putting its strategies into practice, a demonstration of the divergence of the current performance from the desired outcome, and the indication of the overall effectiveness and efficiency of the organization. (Balanced Scorecard Institute, 2019.)

When defined and employed properly, good KPIs can serve as quantifiable evidence of a working strategy, a comparison of how performance has changed over the time, direct employees' focus towards the most prioritized aspects of success, enable the measurement of achievements, not just the performed tasks, formulate a shared language facilitating smooth communication, and alleviate intangible ambiguity. (Balanced Scorecard Institute, 2019.)

Figure 5 is an exemplary template for identifying key KPIs following four perspectives of BSC framework.

FY08 Region "X" Sales Engineering Balanced Scorecard

Mission Statement: *"We lead, our customers succeed"*
Grand Actionable Theme: *"To be the #1 Sales Engineering Organization Within Our Company"*
Psychological/Feel-good Variant: *"To make Sales Engineering the most Respected Profession within our company"*
The $$: *"To over-achieve our FY08 revenue targets in each business unit"*

Key
Green = met or exceeded goal
Yellow = 50% or greater achievement
Red = Less than 50% achievement

	Objectives and Metrics	Q2 Score	Q2 Goal	Q2 Actual	Q1 Score	Q1 Goal	Q1 Actual	Initiatives
Learning and Growth Perspective	**Increase knowledge and thought leadership**							
	Actual Effective Training Hours/HC (lag)	115	20	23	70	20	14.0	Accumulate 80 hours per head count for FY08
	# of knowledge events (lag)	119	16	19	44	16	7	Q2; one for each of the 16 line managers and principal consultants or any combination to get to 16
	% of customer-facing SE's with at least one certifications	95	40%	38%	N/A	Q2	Q2	Q2 Compile current list of certifications
	Retention (lag)	101	97%	97.8%	101	97%	97.8%	
	Enhance demo skills							
	% presales staff who attend demo training	121	33%	40%	N/A	Q2	Q2	Conduct instructor-led "Perfect Pitch" training for eligible Presales individuals
	Increase feedback sharing between sales and presales							
	% of joint customer interactions with documented debrief	44	25%	11%	N/A	Q2	Q2	Q2 initiative
Process Perspective	**Focus on what we can and should sell**							
	% demos for key products	104	73%	76%	105	70%	73.5%	Publicize list of key products
	Import % for key products	70	5%	3.5%	135	5%	3.7%	Goal is less than 5%
	Total Headcount	98	145	142	94	143	134	
	Improve RFx qualification							
	Win rate RFPs	73	25%	18.3%	71	25%	17.6%	Implement 3-strikes rule
	Success rate of Qual Scorecard (% of RFx which take recommended action)	75	100%	75%	71	100%	70.6%	
	Improve trial efficiency							
	Win rate Trials	97	60%	58%	N/A	60%	0/10 (all pending)	Analyze FY07 trials for each BU to identify what we are trialing and why; examine exceptions
	Trial cost as a % of the trial revenue	229	8%	3.5%	N/A		$199,618/0	Implement variable service levels
Customer Perspective	**Strengthen customer partnerships**							
	# of new references (key and beta products)	63	38	24	N/A	Q2	Q2	"Take a tech to lunch" initiative (start in Q2)
	# of business value stories (key and beta products)	116	38	44	50	4	2	Field Marketing Initiative
	"Likelihood to recommend" area average on a 10-pt scale (Satmetrix)	99	6.8	6.71	105	6.5	6.81	
Financial Perspective	**Maintain status as #1 Presales Area in efficiency**							
	Revenue/customer-facing headcount	102	$784,737	$ 803,111	96	$411,000	$392,921	Q1 =$14,930,999
	Overall Utilization (client-facing & client related)	107	60%	64%	110	60%	66%	
	Exceed NCV target for each business unit							
	% Revenue of acquisition products (<12 mo. and/or have overlay team); (lag)	83	28%	23%	74	28%	20.8%	
	% Revenue for key products (lag)	102	80%	0.812	93	80%	74.5%	
	Overall pipeline/quota coverage (lead)	82	3.00	2.45	49	3.00	1.47	Good Growth in Pipeline Coverage Factor

FIGURE 5. a typical BSC spreadsheet

2.3.3 Service design method cards

This literature review part opens up about a service design approach using method cards. The following sub-chapters will explain what design thinking is, why it is necessary for constructing ideas in service design, and how it can push service developments in conjunction with method cards.

a) Design Thinking

Design thinking is a repetitive procedure that immerses organizations (or can be referred as 'designers' in this case) into understanding their consumers, disputing initial belief, reassessing underlying issues, and coming up with dynamic resolutions that are possible to be prototyped and tested. To sum up, the ultimate intent of the approach is to unveil alternative strategies and solutions that may not be acquired with an initial knowledge about the problem. Design thinking presents a novel course of thinking and introduces feasible state-of-the-art

methods to assist companies in designing pleasant services. Design thinking is a boost to:

- Form deepest comprehension of the consumers.
- Discover and cultivate empathy with the targeted audience.
- Stimulate questions concerning problems, assumptions and implications that help set a path for success.
- Effectively tackle issues that are vague or unidentified in the most practical manner.
- Proceed with constant experimentation of new thoughts and ideas aided by drafts, prototypes, testing, and trials.

(Dam & Siang 2022.)

As Dam and Siang (2022) claimed, design thinking is “an iterative and non-linear process” and comprises of five stages:

1) Empathize - This stage focuses on humans as whole. The designer observes the users and their behaviors in the surrounding living landscape. Following that, closer interactions through, for example, interviews, can help to explore interesting stunning insights from customers that no one can ever perceive before. Last but not least, the designer must create a space where he can immerse himself into experiencing the service being offered to his targeted customers.
2) Define - This is when empathy findings are detached and unified into proper needs and insights. The goal is to form a thorough understanding of the users and a design path, from which, a problem statement (or the main point of view) is established to guide the design process towards interpreting insights and resolving customer problems.
3) Ideate - This stage emphasizes both the quantity of the ideas and diversity of the solution. This is when the whole design team’s outlook and strengths are utilized to produce as many innovative possibilities as possible which will be tested in the next phase.
4) Prototype - The practical experience of proposed solutions in this stage would help to fuel empathy efforts and learning process, suggest modification ideas and formalize the design process closer to pre-determined targets. Practical experience in this phase means trails with physical forms such as paper notes or role-playing games etc. The testing of each

option should be simple and fast enough so that various solutions can be inspected.

5) Test - This is when elected solution(s) are brought for usage and feedbacks from the expected end-users. As it is throughout the service design method, this testing phase is also iterative where solutions are to be constantly refined and developed to fully meet customer satisfactions.

(Institute of Design at Stanford, n.d.)

Figure 6 shows the service design thinking process as an iterative sequence where the solutions are undergone several times over the five development stages.

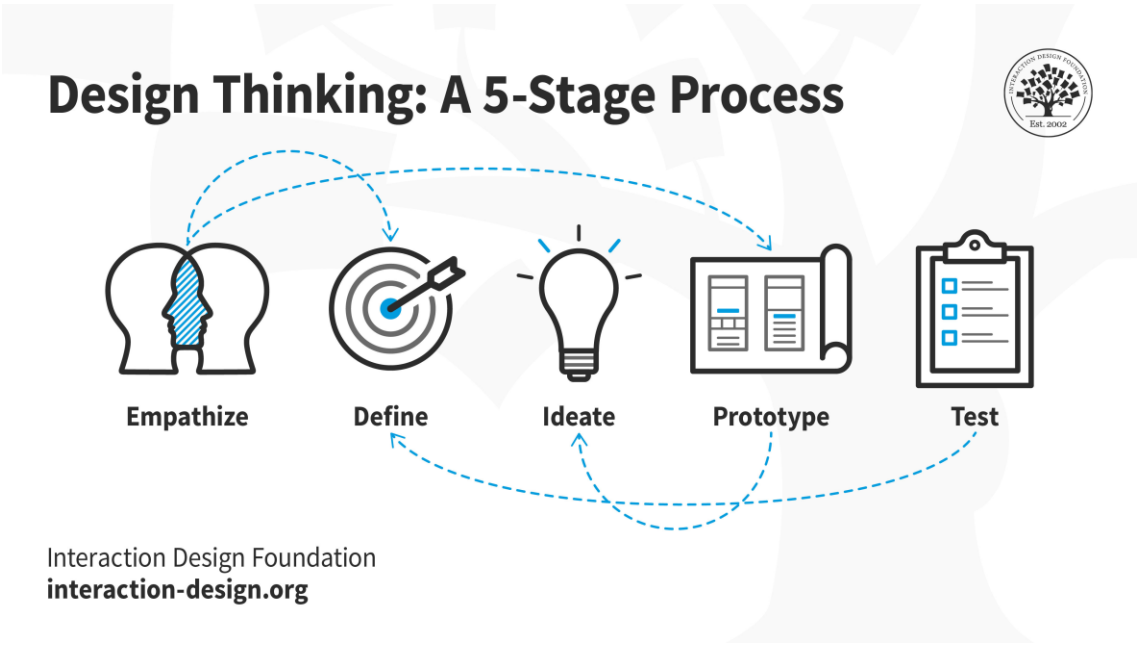

FIGURE 6. five stages in the design thinking process (The Interaction Design Foundation, 2022)

b) Method Cards

A CARD (Collaborative Analysis of Requirements and Design) technique presented by Tudor and her colleagues is “an informal or semi-structured card game that supports collaborative analysis and critique of a software system by a group of people - including users - who have a variety of disciplines and skill sets” (Tudor, Muller, Dayton & Root 1993, 295). In their research, cards were used to display design-related information, data, texts and images etc. (assist-

ing as a memory aid and realization), moreover, cards can offer a physical graphic interference which can be analysed at-front and tools to be exploited and formulate ideas.

By applying the model, an effective channel of communication between the users and the system analyst is established. Through that, the confidence amongst stakeholders is retained as the new task flows are collaboratively created and assessed, and responsibilities for the resulting design are shared equally. Adding to that, a high-level design (for example, a design of a software) can be adapted into paper-and-pencil materials for the prototypes stage for low-cost reviews and modifications. Thanks to the fact that the designers and users' communication is emphasized in the CARD method, the design can acquire enough the users' real goals, subgoals, preferences in workflow, and constraints before it is forged into the final version. (Tudor, Muller, Dayton & Root 1993, 297-298.)

The cards play as a simple-technical shared language that promotes meaningful communication amongst all parties. No individuals can claim to exclusive ownership of the project using cards technique; instead, it is the group's common "property". All players have equal access and simplicity of handling, rearranging, changing, and even generating new cards as needed thanks to the cards' simple, non-technical physical structure. (Lafrenière, Dayton & Muller 1999, 151.)

There are many types of card-based tools been developed and used in the design process ranging from games, software to education fields. Some of the popular tools can be named: IDEO, SUTD - kinds of free-use cards and provide explicit themes and flexible length in usage; Sound Design Deck and Design Play Card - card decks which are specified to distinct contexts and particular agendas; or the cards which cannot be customized such as SUTD, Oblique while, in the other hand, names such as Inspiration Cards and Ideation Deck required cards to be created initially for the design to be commenced. The fact that many card decks are published and some may provide users with detailed instructions, not many designers can go through all the possibilities and properly applied one(s) into their specific case, the best way is to consider time,

knowledge of team members, needs of the design team, expected results and many other possible factors. (Wölfel & Merritt 2013, 480-484.) Figure 7 depicts some method cards tools which have been developed over time with assessment on five different dimensions, the graph appears here only to claim that each model has different characteristics and usability following distinct demands from the designers, companies need to consider their own circumstances to choose the most appropriate for themselves.

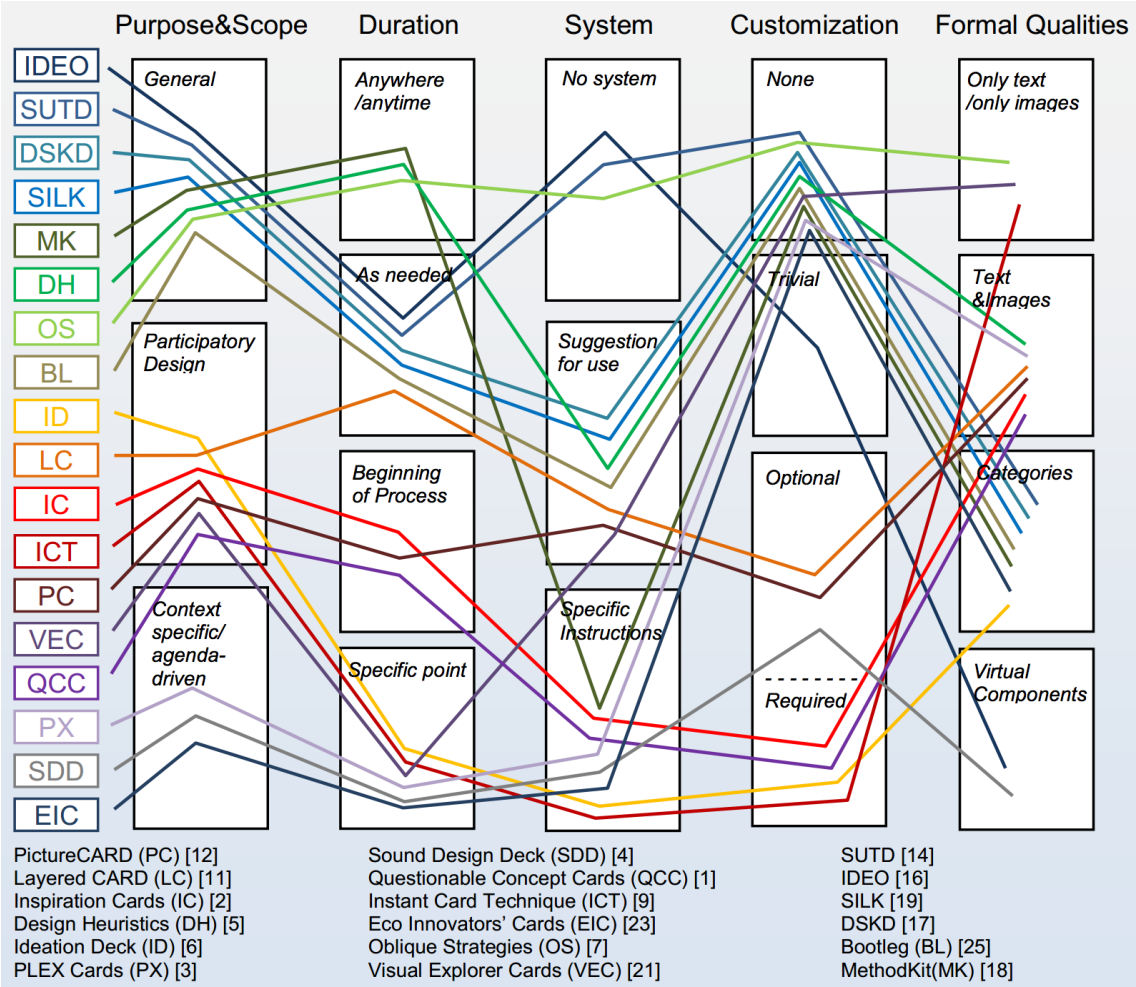

Figure 7 Classification of method cards for design (Wölfel & Merritt 2013, 483)

c) Method cards applied with service design thinking

Method cards can be an icebreaker when the design process encounters obstacles or struggles to escape from conventional way of thinking. This methodology helps to foster discussions, in which inventive and more innovative ideas, as well as well-structured thinking are to be set to the table. Various method

cards have been developed over years with several have similar features and functions that can be used freely by the designers or the own unique cards for a design can be made. The card sets can also serve as effective checklists to ensure that no crucial aspects are overlooked. In addition to that, they bring about a sense of prioritization by identifying and sorting out the most vital elements, or serving as headings around which thoughts and observations are gathered. (Stickdorn, Hormess, Lawrence & Schneider 2018, 181.)

Method Cards are valuable tools for acquiring user's insights about his/her desires, requirements, and actions towards a task or service delivered. While they can provide considerable useful information, it's crucial for researchers and analysts to approach the collecting and interpreting data process with empathy. The method cards approach is excellent for gathering user input; nevertheless, certain limitations might prevail when it comes to service design. (Using method cards for service design 2018.). Therefore, in order for the design process to be as smooth and fruitful as possible, service design thinking approach needs to be followed in a consistent manner; in a way, the combination of the methodologies can spawn the highest outcomes. Figure 8 exemplifies several cards contents for business development.

Figure 8. IDEO method cards in business development (The Print Arkive)

2.4 Working methods and data collection

To gather enough information and data for the thesis, various methods will be applied. Mostly the data will be deprived from the qualitative research as it addresses the questions "how and why" within the data analysis process. This type of data predominantly focuses on information related to emotions, perceptions, and feelings. It is often gathered through unstructured methods like interviews, upholding qualitative data and setting path for deeper study of the concerning aspects. Qualitative research methods can be categorized into three main groups: observations, document reviews, and in-depth interviews. (Taherdoost 2021, 11.)

Qualitative data for this thesis will be collected mainly through the following techniques. Observation - the information is gathered through direct observation without seeking input or responses from company's people (Mazhar, Anjum, Anwar & Khan 2021, 7), based on the author's experience as an intern of the company and documents from the previous projects in the company online database. The next-in-line research method for this thesis is document review, in this case, a previous project case between Hiava and a customer. Document review is a reasonable method to extract meaning, information and establish empirical knowledge towards the problem being researched, documents to be reviewed can be, for example, in forms of agendas, minutes of meeting, manuals, background papers or organizational and institutional reports (Rapley 2018). However, according to Bowen (2009), using document analysis as an alternative for other forms or information acquire which require deeper insights and practical statements is not recommended. On top of that, this thesis included interview as a main source of collecting primary data since the topic concerns about strategy planning and process development, the company's current goals and objectives as well as business situation need to be directly given by the CEO/ founder of Hiava. Interview is especially helpful when it comes to the situations involving complex or sensitive concepts when detailed and high-status information is needed (Frechtling 2002, 51).

Hiava's customer feedback was collected as secondary data through Hiava's website, and the case study given by the company (Taherdoost 2021, 12). The data was collected from the company's perceptions towards past discussions and reviews from the previous customers. As permitted, two online meetings for interview were conducted between the company CEO and the author in order for comprehensive statements about company strategy and vision as well as case insights to be obtained.

2.5 Thesis process

The thesis proceeds in a straightforward and logical order. The first chapter introduces the thesis' main topic and the reasons why it is the case. The second

chapter - the thesis plan, encompasses thesis topic, objectives, purposes and research questions. In the same chapter, the relevant concepts and methodologies to be used in the thesis are interpreted and referenced from well-researched articles, followed by working methods and data collection plan applicable to the subject being discussed. The third chapter introduces the company in details, its services, current situations and why a post-sales order execution procedure is needed at present. Chapter four focuses on the collected information and analyzing all the in-hands information to be prepared for the fifth chapter, where the analyzed data is combined with presented methodologies to formulate a proper procedure for Hiava. The final chapter is the conclusion and summary about the recommendations.

3 HIAVA OY

Hiava Oy – established in 2019 and located in Espoo, Finland, is an engineering firm specializing in enhancing supply chain processes, production, material flow design, and project management. It assists businesses from various sectors including industry, warehousing, logistics, aviation, and retail in dealing with diverse types of difficulties relating to operations demands and obstacles. Engineering competence, holistic systems analysis, and dedication to achieving the highest outcomes are the values that the company will offer to its clients in all of their collaborative projects. (Hiava 2023.)

At the moment, Hiava delivers four main categories of tools and solutions: WAYS - a trademarked service for process development, Ainak LeaPP - lean process planner partnered with Ainak Oy, Nadii - machine learning-based software for preemptive/autonomous decision making and supply chain analysis, and Hiava 4PL - a comprehensive transport order management platform (Hiava n.d). By utilizing the capabilities of these services, the company will help its clients to (1) formulate and enhance operations processes, (2) supervise production and material movement, and (3) implement and direct projects with designated resources (Hiava 2023).

As a start-up who is in the very first stage of introducing its range of services and tools while starting to get several customer cases executed. Adding to that, in the long run, the company’s business becomes more hectic. There should be a consolidated procedure to be followed which helps to get rid of confusion between the internal stakeholders and to serve as a baseline to measure the progress and outcomes of a project. The procedure will be given by looking back on how the company has been doing so far and from collecting information with the company representative. The next chapter gives an example of a customer case accomplished in the first half of 2023.

4 DATA COLLECTION, CASE STUDY AND ANALYSIS

The case is about warehouse and factory design and processes for a medium-sized company whose expertise is about delivering advanced products, digital solutions, and services for professionals from industrial welding companies to single contractors. In this case, Hiava focused on dealing with the client company's significant growth in orders and material flows. Since the previous area and process is no longer appropriate for the company's developing business; therefore, a new design and process are needed to improve the manufacture and logistics efficiency while optimizing utilizable space and workforce. The information is collected through a case presentation provided by Hiava and more thorough information is solicited later from the company CEO as an interviewee.

Due to confidential reason, the name as well as the relevant data such as internal images and KPIs of the client is kept unrevealed. Thus, this thesis can only deepen to the level of in-text context, which will try to explain how and what kind of data there was during the order execution process between Hiava and that customer.

4.1 Analysis of Hiava case presentation

In order to get familiar with the case, on the first hand, the commissioner company has provided the writer with a secondary data source which was a case presentation from the project with a client (Hiava 2023). The presentation introduced the case's goals and needs, current limitations and original layout and process of the client. Adding to that, several concepts have been introduced based on the pre-determined requirements about the usable space and lead time as well as related KPIs on comparison between current and predicted financial numbers whether there is a new implementation.

The project aims to reinforce the client's manufacture capacity in response to the rising demands from the market by reviving existing material flows and production layout, asides innovating manufacturing process. As in narrative order, Hiava project team clarifies the customer's corporate vision and its basic re-

quirements and concept goals for the project through two Teams meetings and two factory visits. The three-day visits to the customer factory were to interview workers from all levels, observing production and acquiring system data. The collected information combined with initial requirements from the client is then used to construct an overall concept framework, allowing deeper analysis and making way for concepts proposal. Throughout the project execution process, both parties have also had directive discussions for timely adjustment and considerations and a shared documentation of design and analysis results. The recommended concepts were drafted after assessing all factors regarding findings, directive and vision/goal setting framework and analysis of the gathered data. To conclude the solution offer phase, an end report is made as an assortment of findings and results constituted from project plan and execution, the report presents Hiava suggestions and outcomes, based on which, the customer can make their final decision on the unique one to be executed at its premise.

Of all the data collected through the secondary source, Hiava's order execution for this customer case has been detailed and rich in actual illustrations. The financial numbers and factory and warehouse layout floorplans for the prevailing implementation have been collected carefully. The remarkable point is that, based on the customer goals and needs, existing capacity regarding the area and investments along with the client operation situation, several concepts have been introduced with the elaborated numbers, pros and cons and appropriateness for each; followed by narrowed recommendations for prioritized concept and coming working steps. That can be concluded, Hiava has done well in researching about the customer and their needs. The related KPIs have been specified and contributed effectively to build the most suitable concept for the case. The contents of presentation are in fact the same as in Figure 9, where the name of the client company and the name of an exclusive process have been changed due to confidential reason.

1. Case Information
   a. Production
   b. Original Layout
   c. Production process
   d. Factory and supply chain
   e. Restrictions
2. Customer needs and goals
3. Customer Business Restrictions
4. Customer Case concepts
5. Project methodology
6. Customer volumes and specification
7. Project measures to improve
   a. Manufacturing KPIs
   b. Project metrics
8. Concept layout & Processes
   a. Factory external Warehouse
   b. Extended inbound warehouse at Factory
   c. No additional space for inbound logistics
   d. Summaries
9. Production concepts and layouts
   a. Production concept frameworks
   b. Production layouts
10. Case drivers and decision main points
    a. Warehousing parameters and analysis
    b. Production parameters and analysis
    c. Process quality framework
11. Outcomes
    a. Suggested concept combination
    b. Framework and considerations
    c. Main changes
12. Summary of conditions for ABC-Process
    a. Definitions of process to free floor area
    b. Summary of ABC-process framework
13. Summary of estimated investment content
    a. Estimated Total investment
    b. Investment details
    c. Timeline
14. Suggestions
    a. Next steps
    b. Transition and layout change ideas
    c. Roadmap

FIGURE 9. Table of content of the case presentation (Hiava 2023)

The above-mentioned presentation has provided well-informed data about the client customer needs and wants, the project requirements, the prospective outcomes in numbers and graphs, as well as the expected timeline for the project implementation. However, it did not tell the reader who within and outside Hiava involved in the project execution process, main contact persons from both sides, testing of the concepts before actual construction, learning and growth opportunities for Hiava during and after the project which, according to the methodologies mentioned in this thesis, are beneficial to be present in an order execution procedure (Ronald 2010, 21-23; Lingqvist, Plotkin & Stanley 2015, 5; Dam & Siang 2022). The presentation, nevertheless, could prove that Hiava has been doing well in collecting customers' technical data and goals; last but not least, it is only a small part of all other various steps which can be developed alongside.

4.2 Analysis of the data collected from discussion with Hiava Chief Executive Officer

Hiava CEO – Teemu Hämäläinen (2023) has granted the writer with two online discussion meetings for the questions regarding the case study and general company strategy to be elaborated.

4.2.1 Case study-related information

As for the actual implementation of the project, the team has been guided towards efficient operation through the beginning to the end of the project. The documentation for the project is valid, up-to-date and reliable to all team members involved in the project. Besides that, the CEO himself revised the process and perceived some improvements to be made: there should be more data and information sharing and more interpretations amongst stakeholders internally, clearer vision and communication for the next steps, following actions points to be under sufficient management, and lastly some thoughts on AI and automation to be utilized especially for when there are more projects happening at the same time.

For the project dedicated to this thesis, there were two people at Hiava working on the project. One person oversees customer dialogue, communication and project management, making sure that pre-identified goals are achieved. The other was helping with analysis matters, layout concepting and process design. To notice, this customer case is the second project with the same customer after another completed one; therefore, certain understanding about the client has been visible beforehand, and thus only two people within the company were needed on the one in analysis.

According to the CEO, the customer case started with approaching the customers, sharing about Hiava services and opportunities for developments. When the cooperation agreement has been made, on-premises inspection has been taken place in 2,5 days comprised of production survey, current activities and process observation, restrictions and opportunities realization, followed by data

work instructions and supporting material acquisition for a basic layout draft to be facilitated. The previous steps significantly supported with documenting the best case scenarios for the type of process that most beneficial for the customer to be drafted. The following phase continued with some iterative rounds for producing the required output, a couple of checks on the correct directions and several guided discussions for the customer preferences and aims. The final step presented main points for the next implementation phase including findings, calculations analysed and created from the case as a final report before the final concept is chosen by the customer and the actual construction and deployment is proceeded.

4.2.2 Company strategy in general

According to the CEO, Hiava current strategy on the overall is as follows:

- Increasing marketing activities, more visibility for potential customers by participating networking events and societies.
- Proceeding with existing cases by fulfilling the promises and trying to get positive references from customers.
- In long-term: emphasis on substantial development of the services, building portfolio and raising awareness in the public. Possessing sufficient competence and capabilities to serve the wider range of customers in the future.
- Short term: developing services in more detailed level, advancing more capable, comprehensive and efficient tools in order to meet customer requirements in the short term and generate more productive values by features add-ons.

As the company's core value, Hiava targets for high quality outcomes and significant value adding for customers while maintaining excellent customer service. Simultaneously, the company is also striving for the compelling solutions with competent resources in long-term development project with meticulous progress tracking and flexible adjustments based on customer preferences on distinct fields and circumstances.

There were periods that Hiava had up to five projects happening at the same time. As a multi-disciplinary solutions agency, its projects' objective, size and

scope are also varied. The number and titles of staff joining a project are also differed from project to project with the participation (as needed) of company owner, solution and design senior consultants, process/development engineer, software developers, project manager, marketing manager and other assisting roles (supporting with material handling and other internal tasks).

At present, team gathering, team discussion and task assignments are main practicalities when executing an order at Hiava. The company plans to have tools for software development and project management in use in the future. Adding to that, the process aims for better documentation methods, accompanied by regular review workshops from the start till the end for status and process update, favouring apparent communication and execution both internally and externally.

Talking about the delays from customer, Hiava deems to be relatively tolerant to document or data provision postpones. They would prioritize the other phases of the project or another internal tasks to keep the workload balanced over the period. In case the customer totally vanishes, the solutions are still be delivered but might not commit to customer's desired output due to lack of supportive information. Forecasts for the customer needs are made in the beginning to keep the projects advanced as planned. The company strongly values events that can help improve the learning curve and complement the customer and market characteristics and habits recording. And hence, development concepts and solutions when formulated yet unused by the customers, despite not yielding the contemporary profits, are not considered a waste of efforts or working resources from the commissioner's point of view. The interview also clarified on which aspects of lean eight types of waste (Gay 2016; Taghavi and Beauregard 2020, 810) should be perceived as waste.

The larger part of company employees now is mostly at the starting phase of their career, switching career path or obtaining a degree. A vast majority of them is in software development and engineering fields. To bolster company growth, senior professionals in sales and B2B marketing, and some mid-level experts in engineering are also hired within the company. At the most senior level in the company is the CEO and one another person holding a consultant

role. For the future, Hiava human resources demands will prioritize mid senior level specialists who are able to well self-guided, capable of doing individual works and take initiatives for the projects. Besides that, there are also spaces for supportive executive at lower level who will assist the company with the simple tasks whilst growing personally and professionally towards middle level seniority.

Hiava working culture is being erected as lean, sustainable, and specifically equal, they are the values applied for the company daily operation itself, the brand identity and correspondingly its customer projects. Analysing and referring from the case study and the discussion with the CEO, the writer asserts that the CEO's perception of the company's current situation and vision and the writer's thoughts based on the introduced methodologies on the same topics share some commonalities. The later chapter in this thesis will base on the data collected in this chapter and discuss further the solutions that align with the company's strategy and reinforce its potential for exceptional project execution and long-term growth.

4.3 Validity, reliability, and limitations

The research questions were created to investigate further the details that the case presentation solely could not help. The inquiry was divided into two focuses which were case-specific and general company's strategy so that systematic bias can be mitigated at most (Jong & Schellens 2000, 244). The information collected and possible to be used was presented in the former sub-chapter then combined with the theories to make a valid procedure for Hiava.

The draft of the thesis, with the answers and certain identities from the company was sent to the company CEO for checking before publication of the thesis. Some information was permitted to leave in its originality in this thesis, while other classified details were removed or edited. This was to ensure the respondents' right of privacy, activities and conditions are free from harmed (Baez 2002, 41).

The thesis draft, with analysis on the company case presentation and interview responses, was sent to Hiava CEO – also the interviewee of the research, the provider of the case presentation and the main company commissioner of this thesis for content inspection. This was to assure the reliability of the research and data demonstration (Long & Johnson 2000, 30-31). The online interview was also automatically transcribed through Teams recording function, the transcript was later scrutinized for information validation to be put into and analyzed in the thesis.

The number of interviewees could be reached is limited due to the constraint of time and arrangement amongst the author and company's staff. Albeit lack of respondents diversity, the questionnaire for the interview with the CEO was made in a way that further elaborate the information of the case study and enrich understanding of company strategy. The limitations, therefore, were alleviated by meticulous data collection from the company through close communication, choice of questions and interview topics.

4.4 Sampling

It must be admitted that broad research is finite due to the tight timeframe for this thesis for arranging sufficient meetings, surveys and communications with the commissioning company and its customers. Selecting samples should be done in a way that evades the research from biases and sampling errors (Taherdoost 2016), or at least diminishes the likelihood of bias, and reliability, validity, replicability, and generalizability-related predicament (Trotter 2012, 398). In spite of the constraints, the data in this thesis was collected in the amplest possible manner so that all the concerning information of the project and company is evident for analysis and solution drafting stages.

The author first specified to the commissioner what kind of project would concern this thesis research topic; after that, a project was offered and accepted. A full case presentation was relayed to the author for observing on the in-use order execution process at the commissioning company. The missing details in the presentation were resolved in the interview with the CEO, who possessed

most information of the entire company's perspectives. Simultaneously, more comprehensive data about the company culture as well as long- and short-term strategy was dispensed. The interview and texting communication with the company CEO and founder, on the company strategies and operations and also the industry knowledge, has applied nomination expert sampling where the most appropriate person of the company and also an experienced expert was reached (Trotter 2012, 399).

5 APPLICATION OF THE THEORIES INTO THE PRACTICALITY AT HIAVA OY

5.1 Lean Six Sigma

Since we refer the lean idea of ‘achieving the most with least resources (Ozkeser 2018, 426), the company should properly handle the eight types of waste (Gay 2016; Taghavi & Beauregard 2020, 810) in the following ways.

Regarding inventory aspect, since Hiava is a solution, tools and service provider, there are not waste regarding materials or other any other physical inventories, it is more about solution and tools which have been developed based on needs and requirements of the customers; therefore, the waste can be come from surplus of ongoing tasks, unproductive intervals, or inefficient distribution of resources. This can be avoided by making sure all the internal stakeholders grasp all the requirements, the restrictions and investing capacity of the customer, and thus, the most narrowed strategy is drafted to tailor the product that is closest to customers’ demand. As the company CEO claimed, the solutions or tools when developed for a customer case but cannot be used are not seen as a waste, it contributes to the learning curve of the company in general.

Waste by waiting happens when the rest of the team waits for the information from the customer to be passed to, there might or might not be another ongoing project(s) at the same time. There might be some period when the majority of staff has no work to do, whilst there is a time when the whole team has to work overtime in order to catch up with the project progress. In another circumstance, idleness can come from waiting for the responses from customers, for example, additional data during service ideating stage or supplementary documents of the factory/warehouse layout and operation. In order to deal with these obstacles, solid deadlines should be set for all individuals involved in the project: the person in charge of customer relationship should define a response date for himself to deliver the required information to the order execution team and for customers to reply in time, reminders are to be sent regularly until the data is provided as expected. Managing all the deadlines is challenging to any profes-

sional, a project tracking application is a paramount aid to effectively manage and prioritize tasks.

Defects in Hiava projects can be avoided by collecting sufficient and precise data from customers. Following how Hiava is conducting its projects now, the writer believes insisting on the current data collecting approach can accomplish the least malformations rate.

Overproduction in a service enterprise can be referred as excessive options such as prototypes or trail tools before a final version is chosen. Regarding this aspect, the commissioner stated in the interview that tasks and actions made unneeded or falling out of customer's use are not necessarily a waste, but more constructively a learning purpose. However, if this happens frequently, it should be considered a waste since various versions require significant efforts from the solution design team which might lead to unnecessary attempts and execution resources wasting. Nevertheless, the case study shows that the company has solved this problem in advance, they develop only three concepts for the design and the two, which were interpreted as the closest to the customers' initial demanding, were recommended for the client to decide.

In Hiava case, motion and transportation-relating waste occurs when Hiava staff visits customer premises without purpose or is required to revisit due to missing/incorrect information from the former trip(s). With respect to sustainability, unnecessary trips and drives using, especially unecological means of transport, should be eluded by commuting in a greener way (using public transport, operating transport matters optimally) and upholding management activities regarding sustainability training to the employees (Evangelista 2014, 70-71).

Overprocessing in Hiava's project might concern providing much higher-quality tools and solutions which produce a disproportionate rate of compensation/effort. On one extent, it is good to fulfill the customer's original requirements X, and also some extra functions that go beyond X as additional value. On the other hand, redundant and far-exceeding features for a project may induce waste in the company resources. Unnecessary focus is consumed on building excessive functions that are not demanded from the customer side but neglect-

ing the other concurrent projects' needs or company important issues. Therefore, clear understanding of customer needs and proceeding closely to the relevant figures with careful consideration on the staff capacity resulted from good management and project guidance would help to ensure delivering the appropriate solutions that the customers truly call for.

For the eighth type of waste, as a small start-up with limited capability in hiring more experts and experienced implementors, Hiava can motivate its existing human resources to widen their knowledge and expertise as a learning-by-doing initiative, a business department staff can learn coding skills while a technical specialist can learn to join in customer negotiation process. The incentives can be compensations based on achievements and recognized distributions to the project out of ordinary duty or awarded courses and training to extend skills. This can be applied until an individual working productivity reaches the maximum amount (for example, 37,5-40 hours of actual working hours spent in a week), then the company can consider hiring more staff after all the possible inhouse resources have been exploited.

When Lean and Six Sigma are combined, the company should be concerned and work more on the strategic level rather than focusing merely on eliminating waste. The DMAIC initiative is for Hiava case as it enhances the company current process (Antony 2005, 645; Tjahjono et al. 2010, 221). As a start-up, all the projects are being proceeded with the direct supervision from all the top management of the company including the CEO, and more or less, marketing manager and business development heads, since the company is still humble on its size and project scope/types. Nonetheless in the longer run, the company should set a rigid procedure for executing a single process; a common goal; incentives for the excellent work of involving individuals; a guided instruction from how to start communicating with customers for data collection and supplement documents, prototypes offering to assisting customers with electing the final option for prompt decision making. Adding to that, lessons and takeaways from each previous project need to be revised and recorded into certain types of internal document as learning materials for the future implementations (Kaplan & Norton 1996, 77). As mentioned earlier, inhouse learning is encouraged at Hiava, it has the qualified skilled people that can deal with project complications

alongside with educate their colleagues, all the staff should be motivated to learn from others, constantly acquire new expertise and experience through projects and learning materials both provided by the company and of his/her interests (Ronald 2010, 21-22), more responsibility can be assigned to one individual as he/she proves to have adequate ability to complete the tasks.

A project management software is needed to manage every single task in a project as well as be possible for all employees to navigate through many other simultaneous projects (Ronald 2010, 22). Some available tools can be named Jira, ClickUp and Asana. As in Six Sigma theory, the number speaks the most clearly whether the previous project brings about positive outcomes for the company financial and developmental performance (Goh & Xie 2004, 236). The project inputs are to be added into the system, where pre-set formulated calculations can tell if there are flaws, delays or surplus during the order execution process. From that, management improvements and adaptations can be made for better exertion as the company grows. As for the Six Sigma-applied software, some examples can be Tallyfy, Pareto Chart and FMEA.

As for the small size of the company, Hiava should carefully consider how many projects it can handle at a time, based on the availability of the current staff and possibility to hire qualified staff in time for project execution. The types of acquired projects should support the advancement of the current four main services of Hiava (Ronald 2010, 22-23), which means, contributing to the functional perfection of each service and tool. The deals that take too much effort to tailor to align with the existing capabilities of the company or fall out of the company's core value and orientation should be avoided in order to avert wrong working resources distribution.

5.2 Balanced Scorecard framework (BSC framework)

Based on the viewpoints drawn from the data analysis and the CEO responses towards the topic, a 35-word strategy (Collis & Rukstad 2008, 91) can be stated as "Developing and possessing the world-top tools, resources and know-hows to generate the most values for the customer, discovering strategic decision

points for more efficient and successful business operation with high quality supply chain solutions."

As for each project, before commencing the job, the project's objectives, scope and company advantages should be clearly defined (Collis & Rukstad 2008, 84). All are visible to all stakeholders joining the project execution process. A defined goal acts as a compact but clear instruction for the executives to proceed in a consistent path, for example, three concepts for warehouse process enhancement based on WAYS principal with the lowest operating fee for each delivery. A coherent specification of project scope retains the solution drafting process in an accepted boundary, for instance, concerning only the A and B area of the warehouse 1 without any arising fees for the surrounding areas construction and operation. Defining the apparent competitive advantage of Hiava in each of project, that can be Hiava's staff distinguished professional respects or the exceptional customer service during and after project execution period. All the three core factors are to be written on the header of each project spreadsheet or any other project management tools front page visible internally and externally.

The four perspectives of balanced scorecard referenced from Maya (2016, 69), when applied to Hiava and based on the case study can be as followed. Regarding financial aspect, as a start-up company in the bootstrapping stage (Thehub.com 2023), not presenting on the stock market yet, stock indicators such as P/E (Performance on Equity) is not in Hiava's heed for now, but only sufficient money in the company bank's account is in main concern. High profits, as the company CEO specified in the beginning of the writer's internship, are not a big deal then, but the number of customers recognizing and reaching Hiava for a potential partnership. The writer supports the idea of Hiava CEO, as a start-up company, the incomes and its profits should be used for reinvestment into innovating efforts of the company services and tools, recruit new experts in the field, both technical development and business development teams. Nevertheless, significant incomes with good profit on the company's financial statement and annual reports can leave a good impression on the potential customers ahead of any coming project negotiations (Roberts & Dowling 2002, 1077-

1078). Therefore, the writer suggests Hiava should keep a stable positive profit but leave certain savings for future development plans.

Hiava's services and solutions appear to customers are transparent and beautiful in its operation accompanied with the modern and handy tools (Hiava 2023). The measures can be referred to customers' satisfaction for each project, a form with detailed sections on improvement regarding, in particular, improvement on margin, process and performance, professionalism in cooperation process and possibility to be recommended. The targets are to be set around the factors previously identified, in favour of achieving the best possible positive reaction from the customers. Appearing to customers as a cooperation which has clear vision and goal, as well as a distinctive and credible partner to client companies require all Hiava staff to comprehend its company's brand image, this can be done by sufficiently communicating the company's core value to each employee at the onboarding stage and any other renovating periods.

The business processes, one of which is the topic of this thesis, should be explicit, smooth and informative to all the stakeholders associated in the working chain. The measurement can be feedback from both internal and external entities on the comprehension and efficiency of the process guidelines as they participate into the collaboration. The way of working should well serve the majority of the concerning people aiming for accomplishing the ultimate goal. Drafting an applicable process needs contributions from various levels within the company from interviews and surveys. Tracking the effectiveness of a process can be derived from anonymous surveys from the concerning stakeholders, several answer scales can tell whether the current procedure is working properly or not.

Learning and growth perspective should be critical for the success of Hiava. That can be seen from the current company situation, most of company's staff are at the entry level of their expertise, though some of the others are rather accomplished in their field. Fresh professionals need to be allowed to take part in as many as projects as possible, despite holding a very small role, through that, hands-on experience can be grasped, and their potentials can be realized and deployed within the company. The measures can be looked from company's financial results relating to human resources as well as employees' appre-

ciation for the granted development opportunities. In order to achieve the best possible contribution from these initiatives, a corporate culture upholding learning from each other needs to be built and at the same time, a good employer reputation is established naturally.

As an example of how to indicate and implement with a BSC spreadsheet, several exemplary KPIs have been given in Figure 10 which Hiava can freely modify and add on according to its actual needs and status. For each perspective, the contents can even be divided into different sections for each separate goals. A progress measure can be added to visualize better the target achievement.

KPI SCORECARD TEMPLATE

COMPANY: HIAVA OY

RANK	PROGRESS
Top 10 KPI	Performance Improving
Middle 30 KPI	Performance Staying About The Same
Bottom 10 KPI	Performance Declining

RANK KEY	STATUS KEY
TOP	IMPROVING
MIDDLE	MAINTAINING
BOTTOM	DECLINING

FINANCIAL INDICATORS	CURRENT	TARGET	RANK	PROGRESS
Revenues from 4 services for the year	EUR90k	EUR200k	MIDDLE	IMPROVING
EBITDA for the year	EUR15k	EUR30k	MIDDLE	IMPROVING
Profit for the year	EUR5k	EUR25k	TOP	MAINTAINING
Receivables at the end of the year	EUR0	EUR50k	TOP	IMPROVING
Investments on product developments	EUR10k	EUR30k	TOP	DECLINING
Salaries	EUR10k	EUR45k	TOP	MAINTAINING
...				

INTERNAL BUSINESS PROCESS INDICATORS	CURRENT	TARGET	RANK	PROGRESS
Introducing new project management software	1	1	TOP	IMPROVING
Having a sound order execution procedure	0	1	TOP	IMPROVING
Deal winning rate %	75%	50%	MIDDLE	IMPROVING
Having at least 3 staff for each project (% projects	100%	100%	MIDDLE	MAINTAINING
...				

CUSTOMER INDICATORS	CURRENT	TARGET	RANK	PROGRESS
Customer satisfaction rate of >5/7 (%)	75%	80%	TOP	IMPROVING
Conversion rate	25%	50%	MIDDLE	DECLINING
Customer references	1	5	TOP	MAINTAINING
International customer cases	1	5	MIDDLE	DECLINING
% customers cases from natural channels	20%	50%	MIDDLE	MAINTAINING
...				

LEARNING & GROWTH INDICATORS	CURRENT	TARGET	RANK	PROGRESS
Having new full-time employees	1	3	TOP	MAINTAINING
Qualified employees for the technical team	2	5	TOP	MAINTAINING
Drafting training guidelines for new BD staff	0	2	MIDDLE	DECLINING
Brand awareness internationally	10%	15%	MIDDLE	IMPROVING
% employees who comprehend company services	50%	85%	MIDDLE	MAINTAINING
...				

FIGURE 10. Example of KPIs on BSC spreadsheet

The four steps targeting for effective strategy management in the BSC as mentioned earlier in Figure 3 (Kaplan & Norton, 1996, 77) and Strategic Map (Balanced Scorecard Institute, 2019) will be the main methodologies constituting a complete procedure in the sub-chapter 5.4, detailed applications are to be found subsequently in this thesis.

5.3 Service design method cards

Hiava order execution process is suggested to follow the five steps in service design thinking (Dam & Siang 2022) combined with card methods (Wölfel & Merritt 2013, 480-484) in the following way (the example of simple cards contents creation can be found in Appendix 2).

1) Empathy: collecting the information from the customers, through client premises visits or discussions (the agreement should specify the needs for intime and accurate requested data delivery), this should be done in a continuous manner, not just in the beginning, as new ideas later coming requires relevant data to support the service design process timely. (Institute of Design at Stanford, n.d.)

The card contents for this stage can be lists of questions formulation, to-do list for the on-site visits, team gathering for project debrief and task distribution, Scrum-based meeting card types.

2) Define: a 35-word strategy for the project can be made at this stage based on collected information from the empathy stage. Connecting current project requirements with company portfolio can speed up designing process; otherwise, a development and learning opportunity are visible. Documentation of the findings, personas, journey maps, design principles, and any other relevant information is prominent to commence drafting concepts. Deadlines are to be set for each individual on their specific tasks, meetings are needed to gather and join the ideas into a common scheme. Client involvement and active response are still pivotal at this stage while the team is proceeding with the solution design process. (Institute of Design at Stanford, n.d.)

Method cards for define stage might include opportunities and problem specifications, demands/pain points/customer profile persona, concise design principles in bullet points, extra requirements from customers, prioritized tasks, necessary documents list.

3) Ideation: this stage gathers whole design team for the project specialization, data needs to be available to all members concerned during technical design period. Several concepts can be introduced and narrowed down gradually for the options closer to customers' specifications, too many options might lead to confusion and distraction from the primary approach. Contribution on all the levels and departments of the company is welcomed as Hiava also usually does, especially for the projects relating to user interference design. Business growth has to come along with advancement in the learning and growth perspective when the top management cannot directly follow all single project, a recording should be visible to all the staff as a learning ma-

terial, working method and vision statement. (Institute of Design at Stanford, n.d.)

Cards for ideation phase is relating what to be presented after each brainstorming session, connecting the points, points of obstacle, out of capability demands, milestone updates.

4) Prototype and Test: As for a solution and service provider, the last two steps in service design thinking can be combined. For instance, a warehouse layout design can be drafted on a paper or layout building software for initial test, Hiava itself does possess the LeaPP tool for layout construction. New operation can be run on paper desk or even on-site which does not require significant actual alteration of the existing infrastructure. There are also projects relating to tools development at Hiava, for which trial sessions can be offered before final product is completely delivered and handed over complete ownership to customers. Looking back and modifying on the previous steps are welcomed as feedback is given from customers after testing and trial. Ensuring the proposed concepts aligning with initial requirements is critical. In case customer requirements at the testing phase fluctuate substantially compared to the original brief, an extra charge for ancillary work to change the direction should be considered for company's profitability. On the other hand, in case the project is highly complicated and require substantial testing on-site, the prototype stage is to define certain concept(s) that follows closest to the original stipulation to be executed for the final experiment. (Institute of Design at Stanford, n.d.)

Cards for this phase might include ticks for the accomplished features, sections for modification-needed points, customer first reaction to the prototype and testing versions, feedback in short keywords, supplements from customers.

5.4 Order execution procedure for a single project at Hiava

Considering the mentioned application of the referred theories as supportive elements for the order execution procedure, a sound process is recommended as followed.

Once the order has been concluded and Hiava is the sole executor for a client project, meeting(s) should be first appointed for both sides to understand each other's wishes and requirements. Once again, Hiava project representative needs to gauge the validity of the project to Hiava expertise and capabilities, ensuring the defined execution period is appropriate for the team and pricings are done properly to the scope of the order (Ronald 2010). This representative can be member of the sales and business development team as they joined also the approaching customer process, and he/she must have sufficient technical knowledge about the services. As mentioned, timely and mutually accepted confidential documents and information exchange agreement is to be specified in the beginning ensuring sufficient inputs from customers during the period of solution drafting (Taghavi and Beauregard 2020, 810). Onsite visits are needed not only for the premises construction project but also the non-construction projects need direct contact in order for Hiava understand the factual situation at the client establishments, layout specification, or conduct possible surveys and interviews to the customer's employees in place.

The human resources on each project should include essentially: one person from the business development or sales team, two to three people depending on the complexity of the order from technical development team. The business side person takes the main responsibility for contacting and making sure all the information between the inhouse and customer sides are communicated effectively, takes care of the customer pre-, during, and post- order execution period, and maintain great permanent customer relationship (Patrick 2023). Technical staff focuses primarily on the tools and solution design with the consultation from the customer relationship employee from the same team. (Arnheiter & Maleyeff 2005, 9.). The sales member is naturally similar to team lead of the order execution team; however, his/her decision is to be made based on the consensus from most of the technical development colleagues. Even though the salesperson is the main communicator of the order execution team, the meetings with customers for briefing or progress updates should include at least one to two technology-expertized members for the best consultation to customers (Institute of Design at Stanford n.d.).

The next step applies BSC implementation by Kaplan and Norton (1996, 77) working on vision, goals of both sides and gathered data from customer. All the project's objective and scope of the project are clarified at this stage. Debriefing customer requirements by writing notes on the method cards (Stickdorn, Hormess, Lawrence & Schneider 2018, 181), setting specific KPIs (Balanced Scorecard Institute, 2019) for each project component, assigning duties and deadlines for updating work process amongst involving staff is recommended. Regular meetings are to be set, at least weekly, with full attendance and trackable collaborative details from each person in-charge, ensuring timely catchups and work process to be followed tightly. All the details must be put meticulously into the project management software in a way that no small details are missed, all the detailed once mutually agreed have to be put immediately into the management system. The team lead makes sure all the members understand concisely the order requirements, equal and appropriate tasks are distributed and cooperate efficiently between the team and top management, updating any problems of the project and seeking for timely assistance in abrupt situations (Wölfel & Merritt 2013).

Ensuring the deadlines are met and problems are solved systematically is significant during the project design process (Kaplan & Norton 1996; Ronald 2010, Dam & Siang 2022). Effective communication channels are to be deployed leaving space for fluid flow of information update amongst team members (Lueg 2015; Balanced Scorecard Institute 2019). Emergency misunderstanding, quarrel and deflection of direction need to be spotted and tackled properly in order for the project does not fall too far away. The project manager assures that the team utilize their optimal working hours for the project, and overtime compensation or extra off days are offered as needed. Learning and minor contribution opportunities can also be granted for interns or fresh staff as an auxiliary source of idea and assistance on small tasks. The designing process needs to be tracked regularly on the foundation of the distinctive project requirements, company vision and core competencies in that it is always in the right track and pace (Tudor, Muller, Dayton & Root 1993, 297-298). Due the fact that there are usually various projects at once, guaranteeing the appropriate priorities, accurate deadlines and correct experts are to be made in order to evade confuse and tasks and strides missing during the working procedure.

The preferred concepts and prototype versions are to be agreed by the majority of the team with the final decision belonged to the team lead coming along with assessment of customer requirements. The team lead is responsible for the final outcomes relating to all the financial, customer relationship and company reputation aspects (Lingqvist, Plotkin & Stanley 2015). Requesting for consultation from the higher level of management is possible in case the decision cannot be made due to lack of experience and complexity of the ongoing situation. KPIs initially set for the project are useful at this stage as the checkboxes are useful for tracking the attainments of the formulated solutions. KPI scorecard can be adjusted into a scope of a project, rather than the entire company strategy to serve as a measurement of the project success.

The testing phases compel the order execution team to intently interact with the customer stakeholders, giving guidelines and clarifications on the solution or tool functions, specifying the characteristics and operation of the concepts. Feedback can be acquired verbally or written, however thereafter, all the evaluations and authentic observation have to be filed thoroughly. New deadlines may be set for the iteration of the solution design process provided that the initial requirements do not change considerably.

The accepted concept for the order to be officially exploited for the customer business is delivered and the invoice is paid in the subsequent period. Limited functions for the solution can be offered for the incomplete invoice payment. However, as the nature of Hiava business, the collaboration between the two sides do not end but maintain at the partnership level, customer relationship management on guaranteeing the delivered solutions and service are operated successfully by the customer crews (Cavusgil & Zou 1994, 16). Furthermore, future collaboration on upgrading the service or cooperating on the other schemes are easier to reach thanks to the long-term accompanying with reliability and efficiency of the preceding project (Legnani, Cavalieri & Ierace 2009).

So as to improve learning curve of the company as a profession service provider following each project successfully executed, developmental ideas always need to be drawn from to contribute to the permanent advancement of the com-

pany, intending to brush up the order execution process, augment financial gains and be more enticing to future customers, several initiatives need to be implemented as suggested in the Strategic Map (Balanced Scorecard Institute, 2019). The recommendations for Hiava case, with only a few modifications compared to Balanced Scorecard Institute's map is depicted in the Figure 11. Noticeably, previously mentioned measures, targets and initiatives for four perspectives of the Balanced Scorecard need to be jointly attained in order to fulfil the objectives described in the graphs.

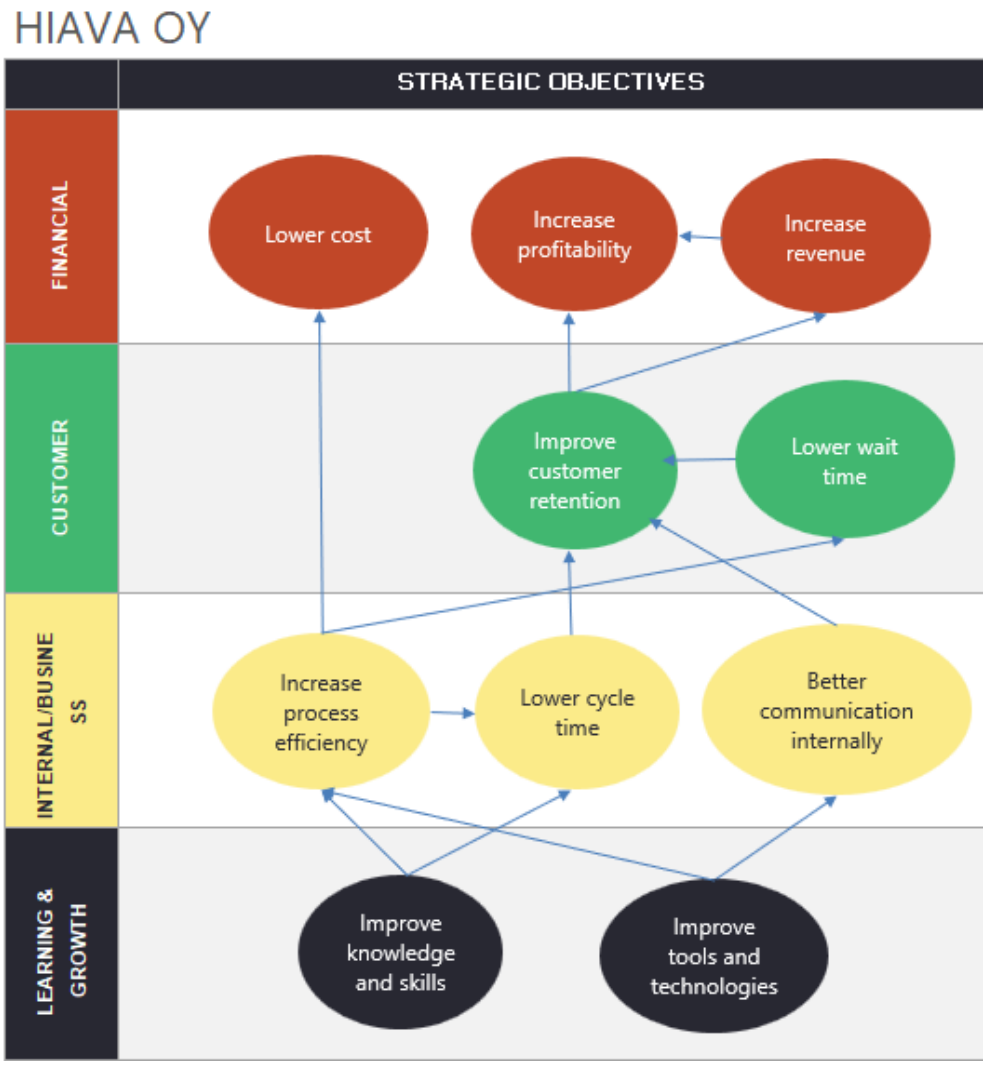

FIGURE 11. Strategic map with Balanced Scorecard for Hiava

As for the strategic advancement of Hiava, knowledge and skills need to be enhanced first aligning with adopting necessary tools and technologies for project management and evaluation. While the experience is accumulated satisfactorily, process adaptability is improved alongside, favouring shorter cycle time and lower cost. Internal communication should be promoted by making sure all the

information reaches every team member and all problems are affirmed and addressed properly. Renovated internal processes improve service performance and boost customer retention and shorter wait time hence, which generate elevated revenues and profits.

Figure 12 illustrates the order execution process suggested for Hiava as presented above. The graph demonstrates the main steps in the process coming along with short descriptions of each one. The graph can be eliminated, added or modified according to the commissioner's needs in the future.

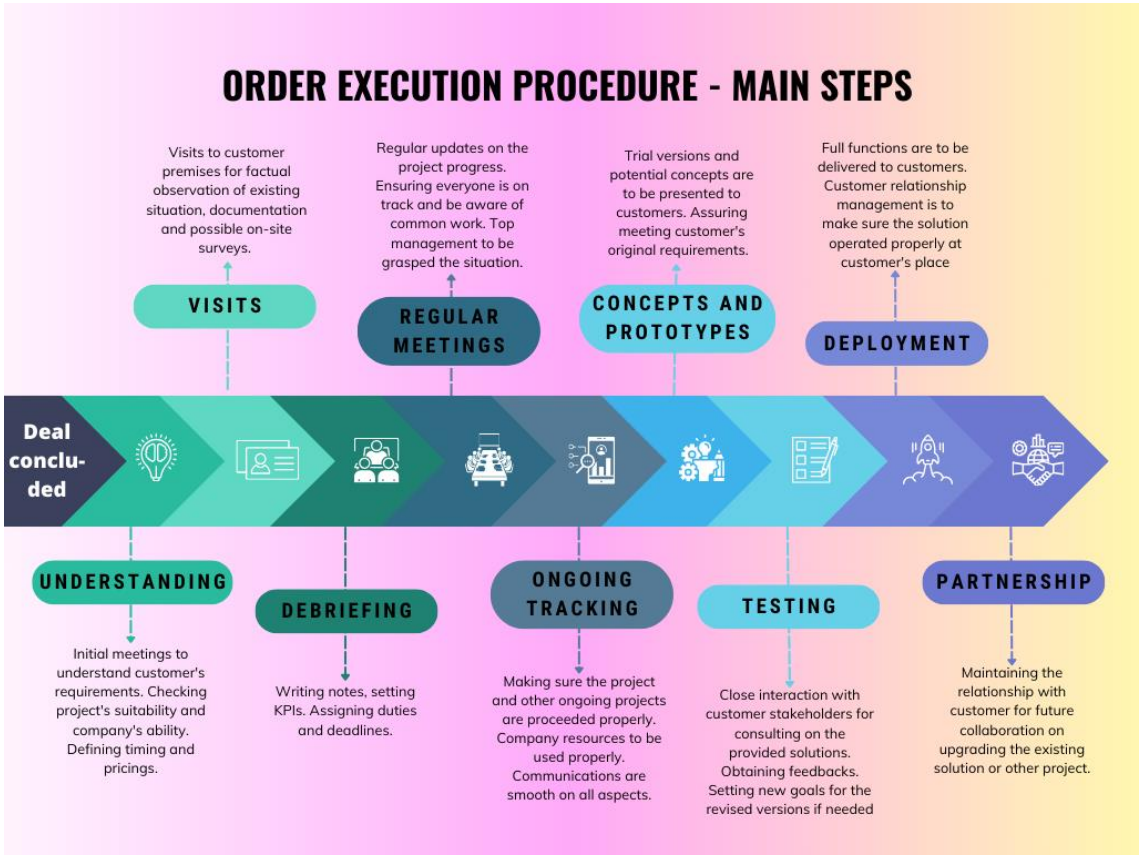

FIGURE 12. Main steps of the order execution process for Hiava.

6 CONCLUSION, SUGGESTION AND LIMITATION

This thesis objective is to constitute an order execution procedure where the tools, services and solutions are tailored and developed based on the needs and wants from the client companies. This leads to the necessity to draft a broad project management plan for the post-sales procedure aiming to satisfy customers' initial requirements, maintain and promote customer relationship before, during and after the order is executed and delivered.

The main research question *"What is the order execution process after the deal has been closed with Hiava Oy as the main solution provider?"* was answered in the chapter 5, specifically in the sub-chapter 5.4. Nonetheless in this thesis, the focus is not solely on the process for a single project but the widened strategy for long-term growth and prosperity of Hiava, upholding the vision to become the best solution provider in the supply chain and logistics management support field. The thesis chose to look further into the longer run rather than only focus on the contemporary time in hoping that Hiava would grow significantly in the near future.

The three methodologies inquired in the question *"What are the appropriate methodologies and tools used in the order execution process?"* were Lean Six Sigma, Balanced Scorecard Framework and service design method cards. The stakeholders involving in the project execution process and their duties in the question *"Which persons within Hiava staff are directly involved in the process and their primary duties until the solution is ready to be implemented for the customer?"* were mentioned several times broadly in the thesis but more in details in the sub-chapter 5.4. The twin has recalled necessary elements to be present in a thorough project management procedure which, in this case, solution development for the client companies. The academic materials research and process planning throughout the thesis were formulated based on the two questions and several generic recommendations were eventually introduced.

As the limited scope and time of this bachelor thesis, along with the broad approach of various methodologies in one purpose, certain limitations are existent. Chapter 5 mentioned about management guideline for the order execution pro-

cess, this should be prepared by the current owner and top managers of the company, as they are the persons who understand and have most aspirations for the company. Following that is the list of project management software and project measurement tools, this thesis named several applications but could not go any deeper into their usage, if further research is conducted, it can examine whether there is the one that is the most pertinent for the company's projects. Some suggestions regarding surveys and interviews for the internal staff and customers about their satisfaction, reviews and contributions to the order execution process were, albeit mentioned, detailed questions and contents could not be given due to the lack of time for the thesis implementation. As noted earlier when interpreting about the BSC spreadsheets, there are still various other templates can be found online with more favourable functions that can much better aid Hiava in project management and process development efforts. The company's own spreedsheet shall be created on its initiatives based on the formulated principles.

The case study about warehouse layout and process development brought about the clearer picture on what Hiava is doing with its current business and how an order execution process is executed for now, based on that, the writer could add on what Hiava is going well to make the comprehensive plan become as splendid and fruitful as possible.

As for the general recommendations, the thesis called for the application of lean six sigma in Hiava project implementation by reducing waste, measuring the perfection level of each solution and tool delivered to customers. The combination of two approaches ensures the balanced concentration on both the process mechanism and efficiency (Arnheiter and Maleyeff 2005, 16). The need for consistent innovation of the process has been emphasized many times during the thesis, once again stressing the DMAIC initiatives of Six Sigma. The Balanced Scorecard set a sequential action plan for Hiava with apparent KPIs on different perspectives for strategic business development. (Balanced Scorecard Institute 2019). The figures and targets need to be revised regularly in order to follow up with the growth of the company business. BSC framework does not need a whole system to be implemented, while several available or manual separate tools can well serve the purpose. The service design thinking theories were

evoked applying alongside with method cards as a good base for the service design period, notably realizing an intensive order execution process (Roy, R., & Warren, J. P. 2019, 150).

An inclusive order execution process has been drafted which describes the critical considerations when commencing a project: what to obtain, agree and the essentiality to opt for a suitable project. After that, how the internal team together manage during the order executing periods, each member's responsibilities, communication guidelines, and how to get the client company simultaneously coming along were proposed. The order execution process finished does not mean Hiava collaborating relationship with that client ended, it still exists in some certain levels that the company has to maintain, along with steady renovation based on experience and learning, in order to raise its brand reputation and become more appealing to the market thereafter (Lingqvist, Plotkin & Stanley 2015).

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APPENDICES

Appendix 1. Questions for Hiava CEO in the online discussion meeting

General in the company:

1) What is the company's current strategy for growth? (-> 35-word strategy statement)
2) Can you summarize your company's strategy in 35 words or shorter?
3) What is your company’s advantage?
4) At which pricing sectors is the company is focusing on?
5) How many projects are happening at the same time? Maximum? Minimum?
6) Average number of staff joining a project? And what are their titles (or main responsibilities in company in general)?
7) Do you have any methods for a team to execute a project?
8) How long does a project usually last? Shortest and longest periods?
9) Were there usually delays from customers about the information provision or payment? When that happens, what do you do to make the project proceed as expected?
10) How is the company current staff? At which level of expertise are they right now (entry, senior or experts…)?
11) Based on the current workload, do you think the company needs to hire more employees?

Case-specific:

1) How do you feel about the project process? Is there anything that needs to be improved or added according to your own opinion?
2) When you tailor a service, e.g., a warehouse layout by LeaPP or a customized software for managing inventory and order automation and so on. If customers do not use it, do you call it a waste?
3) How many people in the company were involved in the project?
4) Can you tell me the project execution process in the narrative order? (when to start, start with what, what happens then, when there is concepts proposal what did you do at the following steps?)

Appendix 2. Examples of cards contents tailorized by the company (Croft 2014.)