

Enhancing Sales and Operations Planning through Integrated Business Planning

What is Integrated Business Planning and how does it help businesses?

Simo Arola

Degree Thesis MBA 2023-24

Master Thesis

Simo Arola Enhancing S&OP through IBP. What is IBP and how does it help businesses? Arcada University of Applied Sciences: MBA, 2023-24

Identification number:

Write identification number

Commissioned by:

Company's name

Abstract:

Sales and Operations Planning (S&OP) is a supply chain process to balance demand and supply, improving enterprises vertical and horizontal alignment. Integrated Business Planning is a strategic company management process to plan together companywide to solve problems and react to changes. According to business literature, Integrated Business Planning (IBP) enhances and secures businesses once the process is understood and done right considering the context the company operates in. The aim of my thesis is to know how to move from S&OP to IBP and succeed on a continuous basis with IBP. To find answers, I use the Gioia method to qualitatively analyse interviews done with IBP professionals from different industries. My results allow us to understand how to succeed with IBP and what it requires. My findings indicate that IBP is an advanced form of S&OP, benefitting businesses when done right. It was found that to succeed in IBP, people and change management needs to be considered. It is also highly recommended to have a successful and clearly beneficial Sales and Operations Planning (S&OP) in place before implementing IBP, as IBP usually evolves from traditional S&OP to be a companywide strategic organisation management tool for CEO and the whole company. Usage of a maturity model and inclusion of contextual factors from day one are also highly recommendable. Technology and process are important factors, as IBP needs advanced technology and a very reactive and adapting process, but people come first in IBP. People lead the process and communication, plus use advanced technology to have higher benefits and maturity than traditional S&OP has.

Keywords:

Integrated Business Planning, Sales and Operations Planning, Strategic Decision Making, Communication, Business, Enterprises, Gioia, Qualitative research.

Contents

1	Int	roduction	5			
	1.1	Background	5			
	1.2	Methodology	7			
2	Lite	erature review	7			
	2.1	Sales and Operations Planning (S&OP)				
		.1 S&OP variables and context-dependency .2 S&OP maturity				
	2.2	What is IBP and how does it differ from traditional S&OP				
	2.2	Enabling integrated business planning, updating maturity of S&OP to IBP				
	2.4	Benefits of integrated business planning, process and technology usage				
	2.5	People and communication as a principle for successful IBP				
	2.6	Literature limitations	23			
3	Ме	ethod	24			
	3.1	Qualitative research and inductive interviews	25			
	3.2	Data collection	26			
	3.3	Data analysis	29			
	3.3	.1 How I sell a value for professionals to participate				
4	Re	32				
	4.1	IBP is Advanced S&OP	33			
	4.2	IBP benefits businesses when done right	35			
	4.3	People are the most important part in IBP	37			
5	Dis	Discussion				
	5.1	Summary, interpretations, and implications	38			
	5.2	Limitations and recommendations.	41			
6	Co	nclusion	42			
7	References					
~						
8	Ар	pendices	50			

1 Introduction

Sales and Operations Planning (S&OP) is a supply chain process that aims to improve enterprises vertical and horizontal alignment as well as alignment between suppliers and customers while balancing demand and supply (Grimson & Pyke, 2007; Oliva & Watson, 2010). Integrated Business Planning (IBP) is an evolution of S&OP, being a strategic, finance led, and companywide company management process to enhance strategy, aligning all units and supply chains to solve problems (Dogan, 2014; Oliver Wight EAME LLP, 2020). IBP benefits businesses when implemented correctly, and according to the context the company operates in (Kristensen & Jonsson, 2018). Everything can't work as planned or as in certain example as every company is different and process needs to be adapted to the context (Kristensen & Jonsson, 2018). Based on interviews with industry experts and literature, my thesis focuses on how to succeed with IBP, and more specifically what does it take to move from S&OP to IBP? S&OP/IBP professionals can use my findings as a base for establishing and maintaining IBP successfully, modifying it according to their context and culture of the company and industry. According to the professionals that I have interviewed, IBP can have limitations and challenges such as amount of data and quality, complexity, lack of support or resources, resistance, and communication issues. My thesis relates how to generally overcome these issues according to my interviews and literature.

1.1 Background

Today business environment is highly competitive as there are many businesses within a given market running similar business models including similar planning processes (Schlegel et al., 2021; Selmi et al., 2021). Companies need to create innovative and strategic decisions to help them change and maintain a competitive advantage in a rapidly changing environment (Schlegel et al., 2021; Tuomikangas & Kaipia, 2014; Pal & Dhir, 2011). Businesses should have a strategy on how they act, or at least clear goals and sustainable business models to align plans and objectives (Porter & Millar, 1985; Porter, 2008; Selmi et al., 2021). Sometimes there are problems with this (Kristensen & Jonsson, 2018). During my work career in selling a Software as a Service (SaaS) food delivery platform in Helsinki area, doing HR and marketing in Spain, booking financial investment meetings in Finland, selling, and delivering cars in Finland, I have seen that instead of clarity, there is a lack of communication especially between units. This has forced me to think why this is the case. I found it even worse while working in

the food delivery platform company as I had expectations of well flowing communication, but there was strategic confusion and lack of understanding of common goals, company values and culture. Examples include not knowing, or worse, not caring about things and changes that affect decisions, being completely out of track for the business. All company units were like silos, that were distanced far away from each other. That is a problem for any organisation as they haven't been able to improve their actions to maximise performance as there is not a well organised, strategic planning processes in place (Pal & Dhir, 2011). Traditional Sales and Operations Planning (S&OP) is a supply chain process to develop tactical plans to balance supply and demand, uniting company plans to have same numbers by uniting finance to S&OP, easing the achievement of set goals (Grimson & Pyke 2007; Thomé et. al., 2012). Integrated Business Planning (IBP) is an evolution from S&OP; it is a strategic company management process, having companywide unification and advanced technology allowing finance and other units to have real-time data. It acts beyond traditional S&OP supply and demand balancing to affect companywide strategy and decisions (Oliver Wight EAME LLP, 2020; Schlegel et al., 2021). None of the places where I worked were doing IBP at the time. Many companies don't have an operative, advanced S&OP, often referred as Integrated Business Planning in place (Schlegel et al., 2021). So, a clear difference of IBP and S&OP is that IBP is not a supply chain process as S&OP is. IBP reaches broader than traditional S&OP. IBP is about planning together companywide and connecting strategy and other business plans to ensure all work well, whereas traditional S&OP focuses on balancing supply and demand (Grimson & Pyke, 2007; Thomé et al., 2012; Oliver Wight EAME LLP, 2020). While S&OP facilitates improvement, IBP does that plus creates transformation (Dogan, 2014). IBP aligns company plans and functions to one integrated set of plans to create a holistic view of the business to support strategy and decision-making and works as a strategic tool for CEO and the whole company (Seeling et al., 2022; Schlegel et al., 2021). Successful IBP drives an alignment across all firm functions, creates readiness for different changes, enhances strategy and improves collaboration across supply chains (Dogan 2014; Schlegel et al., 2021). To support this continuously, it is collaborative, at least internally, but usually also externally cross-functional cyclical monthly process to meet, gather and analyse data to shape a vision, then collaborate aligning with same numbers, decisive outcomes, and forecasts in all units to ensure business goals, monitoring and adjusting functions monthly to track and achieve the goals (Selmi et al., 2021; Almeida et al., 2021; Dogan, 2014). To do IBP successfully, the core we need is people, process, and technology, focusing on people first as people govern, have talent and create effective mission and process, followed by advanced process and technology (Rantala, 2023).

To implement IBP, it is recommended to already have a process for balanced demand, supply, and sales in place (i.e., SO&P). This allows for a base to enhance the existing process to interact real-time with finance, marketing as well other units to ensure everyone is having the same direction and eased communication to achieve goals easier (Selmi et al., 2021). Context, industry, and resources are important factors to personalise IBP. (Kristensen & Jonsson, 2018). It is argued that Integrated Business Planning benefits businesses when done right according to the context the company operates in. (Kreuter et al., 2021; Schlegel et al., 2021; Kristensen & Jonsson, 2018; Almeida et al., 2021)

1.2 Methodology

The aim of my thesis is to study how to do successful IBP after having S&OP in place, studying what else is required to implement and maintain IBP and what limitations there are. I chose the Gioia method to analyse interviews with professionals from different industries to give aligned and grouped outcomes consisting of different datasets. I then analysed the data with the model built by Gioia et al (2012). I then constructed a literature review from books, articles, and different earlier studies regarding my research question, and compared the literature to my results in terms of how to do successful IBP having S&OP as a base, benefits, and whether companies use a similar set of actions that the literature recommends. This way, my thesis gives recommendations for companies to check whether they would find actions to benefit their business and a base to establish IBP process to any organisation. The structure of this thesis is as follows: literature review, method, results, discussion, and conclusion.

2 Literature review

This chapter provides a literature review to see how literature describes S&OP, IBP, differences between the two, benefits, and importance of people.

2.1 Sales and Operations Planning (S&OP)

Sales and Operations Planning (S&OP) is a process that aims to improve enterprises vertical and horizontal alignment, alignment between suppliers and customers (Oliva & Watson, 2010; Sinha et al., 2016). In other words, it is to balance demand and supply to reach business goals and achieve competitive advantage from managing supply chain (Swaim et al., 2016; Coker & Helo, 2016). It's working in one agenda and with same numbers (Kumar & Srivastava, 2014; Oliver Wight EAME LLP, 2020). S&OP is often associated with advantages such as more accurate forecasts, better customer service, lower inventory levels reducing costs (Thomé et al., 2012). S&OP is usually performed in monthly cycles, normally consisting of a classic five-step process model by Wallace and Stahl (2006) (Oliva & Watson, 2010; Seeling et al., 2022). This traditional five-step process model is displayed in figure 1.

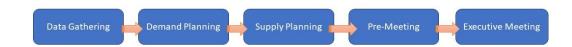


Figure 1 Five-step S&OP process concept according to Wallace & Stahl, 2006.

First data is needed to plan accordingly, demand providing supply with their plan results (Grimson & Pyke, 2007; Ivert et al., 2015). If more steps are needed in context, this model can be modified (Dreyer et al., 2018; Kreuter et al., 2021). As an example, in fast-paced industry like food the supply is highly variable, so studies recommend initial supply planning to be added as second step due to industry promotion-intensive nature and high stock keeping unit (SKU) level (Ivert et al., 2015; Dreyer et al., 2018). In today's manufacturing environment, S&OP is very essential process to the business function as many companies could not run their business without S&OP process (Wagner et al., 2014; Almeida et al., 2022). S&OP is crucial to achieve set goals and performance as the company overcomes the silo effect enhancing communications (Kumar & Srivastava, 2014; Swaim et al., 2016). Well-structured and smoothly running S&OP is recommendable to have before implementing IBP to an organisation (Thomé et al., 2012; Schlegel et al., 2021).

2.1.1 S&OP variables and context-dependency

To picture what variables a traditional SO&P process has, there is a contingency framework with three categories of variables from Kristensen & Jonsson as a base to describe what variables SO&P process in general contains like what the process should include in planning, maintenance, and in implementation of new. This framework is shown here in figure two.

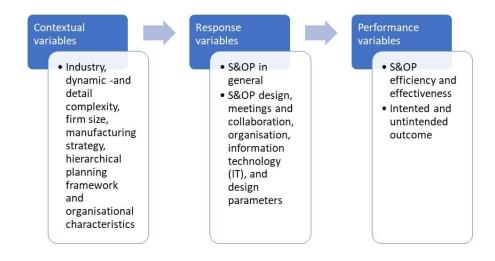


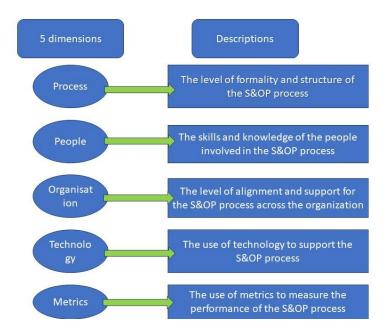
Figure 2 contingency research framework according to Kristensen & Johnsson 2018.

The planning should start from contextual variables (Kristensen & Jonsson, 2018; Noroozi & Wikner, 2017; Tchokogué et al., 2022). Under response and performance variables, there should be indicators put in place to measure and enhance the process, and context should be analysed continuously (Thomé et al., 2012; Dreyer et al., 2018). Then the process usually starts from collecting and analysing data from sales and marketing teams, followed by demand plan to be able to give demand data for supply plan, then plan reconciliation, executive S&OP meeting, plus finally plan execution with follow-ups monthly. (Grimson & Pyke, 2007; Plank & Hooker, 2014; Swaim et al., 2016; Seeling et al., 2022). Communication and people are big key in each part, always (Tsanos et al., 2014, Stentoft et al., 2021; Prabhu & Srivastava, 2023). Continuous education and development of staff skills should be a part of the continuous S&OP process (Lorenz et al., 2013). In the basic S&OP minimum demand, supply, and sales should be included to monthly meetings to share vision and numbers, measuring the situation and creating outcomes to act together (Grimson & Pyke, 2007; Dogan, 2014; Tchokogué et al., 2022). Kristensen & Johnsson have found that context is very important on planning as different industries etc. need different actions, processes, and planning from the starting point. Everything can't work as planned or as in certain example, so SO&P should be very context based to be able to plan, change, understand, and to perform well according to the surroundings of the company (Kristensen & Jonsson, 2018). S&OP

design depends on industry, dynamic and detail complexity, and organisational characteristics. Company size does matter as small and medium-sized enterprises (SME) have more limited resources and necessities, but the planning there is positively associated with operational and subjective performance, but usually not financial (Osiyevskyy et al., 2016). Maturity level is lower with SME usually (Osiyevskyy et al., 2016). Some SME can have very high maturity S&OP too (Thomé et al., 2012; Osiyevskyy et al., 2016). So, Kristensen & Johnsson (2018) suggests researching deeper the roles and complexity, process, system, firm size, and organisational characteristics to have more suitable design that works better in certain industrial environment and company culture.

2.1.2 S&OP maturity

S&OP activities should be put to a maturity model from the beginning to track advancement of the process and identify lacks to modify and enhance functions overtime (Garcia Reyes & Giachetti, 2010; Wagner et al., 2014; Danese et al., 2018; Oliver Wight EAME LLP, 2020). Maturity model does help the enterprise to achieve outcomes and dynamically enhance their processes and operations (Wagner et al., 2012; Gustafsson et al., 2019; Kreuter et al., 2021). Danese et al. (2018) has created five dimensions maturity model in Italy that I have decided to use as an example to track S&OP processes to ease maturity updates according to the business goals and needs overtime. In this model, the activities are put to the framework according to 1-5 numbers figuring the maturity level of the activity, 5 being highest level and identified as IBP or very advanced S&OP (Danese et al., 2018).



This model can be easily expanded and modified to different contexts by adding main and under dimensions, variables, and indicators such as adding data as main and then under it historical, external, internal, ownership, collabs with customers or suppliers and data set updates (Vereecke et al., 2018). Some other maturity models can fit better to some specified contexts as different models have their strengths and weaknesses (Kristensen & Jonsson, 2018; Kreuter et al., 2021). Ivert et al. (2015) suggests Planning Environment (PE) as an important part of the context with any model to adjust S&OP to set flexible stock keeping unit (SKU) level to be able to replan and have a flexible planning horizon to ease reacting to contingencies. The model should be chosen according to context and specific needs of the company and industry (Grimson & Pyke, 2007; Selmi et al., 2021; Adrodegari & Saccani, 2020; Kreuter et al., 2021).

2.2 What is IBP and how does it differ from traditional S&OP

IBP is not a supply chain process as S&OP is. IBP reaches broader from S&OP, connecting strategy and other business plans to ensure all work well (Oliver Wight EAME LLP, 2020). IBP focuses on deployment of a business strategy. While S&OP facilitates improvement, IBP does that plus creates transformation, typically involving a wider range of stakeholders than S&OP (Dogan, 2014; Oliver Wight EAME LLP, 2020). IBP aligns company plans to one integrated set of plans (Danese et al., 2018). Kristensen & Jonsson (2018) claim that IBP benefits when done correctly, but there is not a certain only way to do all correctly by same principles as contextual factors are different, it is important to valuate context evolving from traditional S&OP to IBP. IBP is a common-sense process to have effective data-based decision making and to satisfy customer in the most profitable way (Selmi et al., 2021; Oliver Wight EAME LLP, 2020). Many earlier studies (Pal & Dhir, 2011; Schlegel et al., 2021; Kristensen & Jonsson, 2018) back industrial differences of IBP, design, maintenance, and others to successfully do IBP. In maturity models, IBP has higher maturity than traditional S&OP, it is a company management tool, a framework that aims to surface and solve problems companywide (Danese et al., 2018). IBP aims to help effective decision-making company wide, sharing the data company wide, not only in operations, sales, demand and supply (Oliver Wight EAME LLP, 2020; Selmi et al., 2021). IBP is not a supply chain

responsibility, which S&OP is (Oliver Wight EAME LLP, 2020). IBP process description has its roots in S&OP but differs from traditional S&OP by having portfolio and resource management added to supply and demand management as well as having more strategic approaches and financial leading role in the process (Oliver Wight EAME LLP, 2020; Selmi et al., 2021).

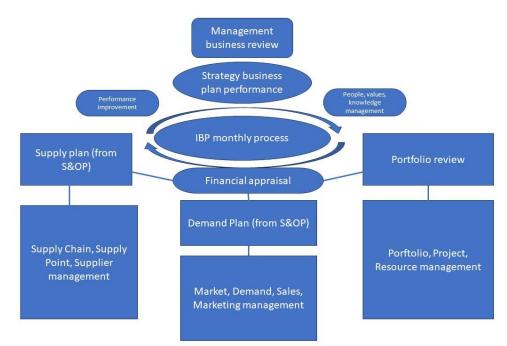


Figure 4 IBP process description, roots from S&OP.

According to Dogan IBP is a tactical and strategic cycle, that operationalises corporate strategy and objectives as a collaborative process where internal functions and external functions act together to balance supply and demand, manage assets and supply chain risks, prioritise customers, services, and products like bringing planning and execution closer to each other in a wider concept than traditional S&OP (Dogan, 2014). Dogan's description for IBP is what many call just higher maturity S&OP or advanced S&OP, so the terms are mixed in the literature, but they mean same adoptions added to traditional S&OP that are widening the process, such as including more finance and updating technology to communicate faster, giving financial insights real-time cross-functionally or having AI-based predictive and learning forecasting's for example to enhance scenario planning (Schlegel et al., 2021; Kreuter et al., 2021). IBP enables businesses to create an advanced aligned, cross-functional plan, based upon key assumptions coming from large data-driven sources, that are higher maturated from traditional S&OP, so having better and sharper data quality and assumptions comparing to traditional S&OP (Danese et al., 2018; Schlegel et. al., 2021; Kumar et. al.,

2021). These assumptions, documented and updated each month, are based on advanced analytical insights (Asmussen et al., 2018; Oliver Wight EAME LLP, 2020). As companywide planning, IBP is a tool to for CEO to enhance strategy (Oliver Wight EAME LLP, 2020; Bhandare, 2021; Schlegel et al., 2021; Kumar et. al., 2021). According to Pal & Dhir an advanced form of S&OP is integrated business planning (IBP), which attaches cross-functional planning activities related to sales, operations, marketing, finance as well as the strategic direction of a company with the integration across organisational boundaries toward customers and suppliers. (Pal & Dhir, 2011; Oviedo et al., 2021). Gartner research advises companies to unite all business plans via finance to update and unite S&OP to advanced S&OP or IBP, meaning IBP being planning together, finance having a leading role (Bhandare, 2021). Johnsson et al. describes IBP being advanced S&OP in highly understood context, using advanced collaborative technological tools and unified planning to enhance business (Jonsson et al., 2021). My interviews tend to find how similarly professionals working daily with these processes see the difference between S&OP and IBP. Figure 5 illustrates IBP basing S&OP, showcasing how the IBP functions are advanced from S&OP.

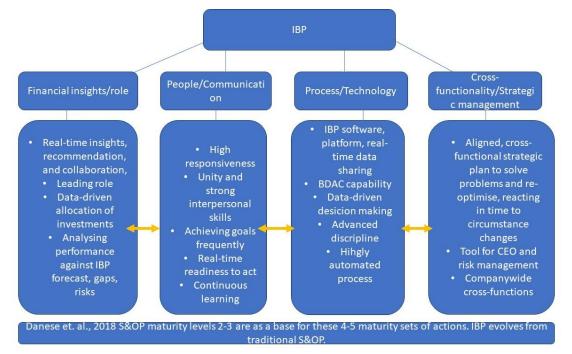


Figure 5 IBP as a strategic tool for company and CEO.

2.3 Enabling integrated business planning, updating maturity of S&OP to IBP

As there is a well working S&OP process in place, to achieve more beneficial outcomes, companies can look to wide their planning processes to widen alignment and gaining more

beneficial uses (Kristensen & Jonsson, 2018; Oliver Wight EAME LLP, 2020; Schlegel et al., 2021; Selmi et al., 2021). According to Oliver Wight EAME LLP, 2020, the S&OP is too often seen only as demand and supply balancing process that undermines a total business management and capabilities of an S&OP activity. Once the basics are achieved and maintained, plus there are resources, the maturity should be updated and IBP should run the entire organisation, linking back to the financial and business plans of the enterprise to achieve maximum advantages from the process (Oliver Wight EAME LLP, 2020; Seeling et al., 2022). Assessing current S&OP process, goals to have IBP maturity as outcomes and objectives must be set, broadly aligning strategic vision and financial resources to current S&OP, pointing out challenges to overcome with higher maturity IBP, that has not been achieved before in lower maturity (Oliver Wight EAME LLP, 2020; Chen et al., 2021; Seeling et al., 2022). Then these outcomes and objectives must be added to current S&OP and then align the process with business strategy to reach IBP maturity. (Danese et al., 2018; Selmi et al., 2021). Gartner research poses defining the role of finance to be a key output to unite business plans to have IBP (Bhandare, 2021). These sets of actions usually require more continuous commitment to improve and collaborate cross-functionally above the current commitment to current maturity level (Wijbenga et al., 2021). Efforts are required in many distinct but complementary fronts to succeed. This highly depends on managers ability to create mindset changes in organisational culture and from together planned plan to grind implementation. Again, contextual variables must be there from day one to implement the process to own needs and behaviours to succeed (Vereecke et al., 2018; Kristensen & Jonsson, 2018; Tchokogué et al., 2022). Studies recommend enhancing connectivity, that means, apps, teams, process, planning etc. are necessary to be connected to share information and plan together cross-functionally (Pal & Dhir, 2011). IBP is to help control and evolve a business (Pal & Dhir, 2011). In theoretical terms S&OP is usually considered as advanced S&OP or IBP when finance is integrated (Nyman, 2023; Rantala, 2023) or once a high maturity level is achieved (Hulthén et al., 2016; Danese et al., 2018). Following Danese et al. five dimensions model the company has reached full IBP implementation and maintenance when it has all its activities in the level 5. To get to the IBP maturity level, Danese et. al. suggests documenting the process, align it with goals and strategy, training employees, continuously monitoring and improving the process, and investing to IT technology to support the process to the wanted maturity achieving outcomes and data that were not possible to have without certain technology (Danese et al., 2018). Usually there are key performance indicators (KPIs) or other measurement put in place to measure IBP

effectiveness. (Vereecke et al., 2018; Sacristán-Díaz et al., 2018). Often research forgets about behavioural and personality indicators that are key to enhance process maturity as people decide and plan together. These KPIs should be included to measurement (Stentoft et. al., 2021; Prabhu & Srivastava, 2023). I have done a maturity framework example figure here to from level one to five to describe the process improvement overtime, modelling in research papers from Kreuter et. al., 2021; Danese et. al., 2018; Garcia Reyes & Giachetti, 2010; Hulthén et al, 2016; and Wijbenga et al. 2021. This is a model helping to enhance S&OP to be IBP and track each set of actions in the business.

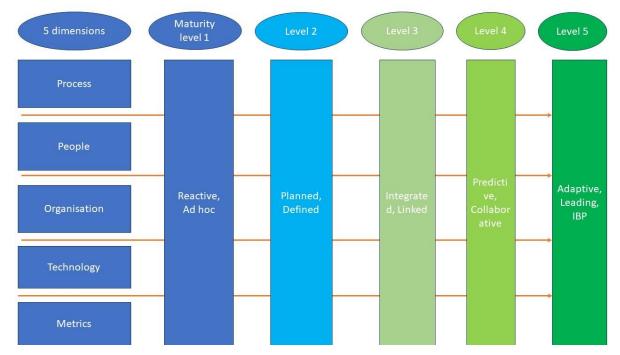


Figure 6. Maturity model to enhance S&OP enabling IBP. Level two is where S&OP starts, and level 5 is full IBP maturity, basing 5 dimensions to Danese et al., 2018.

This model is a base in my thesis to apply to different contexts and enhancing it according to planning environment, behaviour and personality to whole S&OP process. Also, this can be applied separately to demand, supply, operative and other units in the company (Garcia Reyes & Giachetti, 2010; Hulthén et al., 2016; Danese et al., 2018; Kreuter et al., 2021). Again, this is just my example. Some variables should be added to specify it for you as it is now general one without specific company, industry, or operational unit (Kreuter et al., 2021; Wijbenga et al., 2021).

Maturity model level one means that the organisation is reactive to demand and supply fluctuations but lack formal and well organised S&OP process (Wijbenga et al., 2021). This

is where every organisation is anyways, even if they don't recognise or have processes to enhance their demand and supply, or other activities but they are supplying something for their customers. So, decisions are made based on intuition or generally without standardisation, and without much data, technology, metrics or documentation. Supply chain management (SCM) targets are not defined and can be missed often, performance is unstructured, knowledge is based to ad hoc gathered and shared information, due those reasons costs are high, and processes depend only persons doing activities, being reactive to the environment, functional silos (Wijbenga et al., 2021). Riks to have poor customer service, expensive and long storage time, and low ability to react to the environment and changes (Wijbenga et al., 2021). S&OP is needed to perform better (Grimson & Pyke, 2007).

Level two is where the formal S&OP starts (Wijbenga et al., 2021). There is planning to balance, Wallace & Stahl five-step process model is taken to use (Kreuter et al., 2021). Here organisations have S&OP process running, but it isn't well defined and standardised. Functions and jobs remain traditional. Technology is quite manual here, using spreadsheets and other manual tools to monthly track the process to make decisions. There is documentation, definition, and prosecution for SCM processes, but more internally only (Wijbenga et al., 2021). Boundary concerns and competing goals as an effort to overcome silos, creating unity and communicating together. Performance is more predictable, SCM targets are defined due to basic S&OP, but the process in yet level two maturity does not have capabilities to hit SCM targets constantly. Some are still missed. But as the plan exists, this is the base to start implementing more, enhancing these basic S&OP (Hulthén et al., 2016; Wijbenga et al., 2021). Monthly meetings are used to enhance business, but there is not that much integration and communication is not that transparent. Customer relationship management (CRM) and other systems are not well integrated (Danese et al., 2018). SCM costs remain high. Knowledge is a competency area in the organisation where areas are isolated and efforts to integrate many processes start happening. This level usually has some inefficiencies and lack of visibility into business (Kreuter et al., 2021).

Level three is where integration has started. This is where functions become cross-functional interactive (Swaim et al., 2016). There is well-defined and standardised S&OP that is more linked than in level two and becomes shared with other business processes (Hulthén et al., 2016; Wijbenga et al., 2021). S&OP has been running for a while, so more context is understood and analysed (Kristensen & Johnsson, 2018; Asmussen et al., 2018). In this level

usually finance is integrated to S&OP, becoming a member of S&OP team. Finance representants are involved in meetings to develop and review plans, and to share financial insights (Seeling et al., 2022; Selmi et. al., 2021). This is where the most of my interviewees told they are with their organisation's S&OP maturity. SCM functions and jobs do go outside and on top of traditional ones. Action is taken to integrate and coordinate internal processes and systems of the organization within S&OP (Asmussen et al., 2018). Cooperation between intraorganizational functions, vendors, and customers sharing same SCM is established here with the S&OP form sharing measurement and goals reaching horizontally across the supply chain (SC) (Wijbenga et al., 2021). So, the process links internal and external factors horizontally in level three (Kreuter et al., 2021). This means that marketing tools can be applied to start reaching B2C as well as B2B partners through S&OP (Plank & Hooker, 2014). Managers use SCM with strategic, goaling, and results intent. More technology is used to track process and gain data to benefit and meet goals. Performance becomes more predictable and continuous efforts to perform better, eliminate root cause, and maintaining status quo takes place here. SCM targets are defined and often achieved (Wijbenga et al., 2021). This is where SCM costs begin to decrease. Knowledge is a competency area in the organisation where areas are united, procedures are established measuring and managing them (Wijbenga et al., 2021). Communication here is more tense and transparent (Stentoft et. al., 2021). Level three stage S&OP usually leads to improved efficiency, visibility, and decision-making (Asmussen et al., 2018; Wijbenga et al., 2021).

Level four is predictive. This means more accurate forecasts are achieved, predicting future demand and supply. Advanced analytics are used (Wijbenga et al., 2021). Usually AI-based technology powers this level predictions together with humans (Chen et al., 2021). Jobs and structures are based on SCM. Traditional SC functional begin to disappear. There is well functioning prosecution to collaborate with suppliers and customers. Organisation, vendors, and suppliers take cooperation to process level (Hulthén et al., 2016; Wijbenga et al., 2021). Here new products launches are considered around advanced S&OP as information flows and marketing are well equipped with data flows from the process (Bagni et al., 2022). Here, the finance provides data throughout the planning and involve in decision making (Seeling et al., 2022; Selmi et al., 2021). SCM measures, manage system and prediction are deeply rooted in the organisation. Process improvement goals are set by teams and achieved with confidence. Performance becomes very predictable, and targets are reliably achieved (Wijbenga et al., 2021). In level four, the organisation takes a proactive approach to respond changes before

they occur. SCM costs are reduced heavily. Knowledge is a competency area in the organisation where areas are well-united, procedures are established measuring and managing them plus manages to those set measurements. This level usually leads to magnificent improvements in customer service, inventory management, and profitability (Danese et al., 2018; Kreuter et al., 2021).

Level five is where IBP maturity is (Danese et al., 2018). This means organizations have adaptive, high-automated, and enhanced S&OP or IBP in place, which is a tool for organisation management (Oliver Wight EAME LLP, 2020). IBP constantly adapts on changing conditions. There is Big Data Analytic Capabilities (BDAC) level tech in place, that uses real-time data and predictive analytics to make decisions in real-time (Schlegel et. al., 2021). Structures and jobs are based on SCM, without traditional functions. Collaboration between legal entities is a routine and advanced SCM practises allow transfer of responsibility without legal ownership. Trust, mutual dependency and enhanced team-spirit are present as communication is very highly understood, multi-film SC teams, and other company units with common processes, goals, and broad authority have taken place (Chen et al., 2021; Wijbenga et al., 2021). Joint investments to improve the system and the returns are shared. Process performance and reliability of the extended system are measured, and processes are systematically managed through continuous improvement (Wijbenga et al., 2021). Finance uses advanced analytics and AI to bring real-time insights and decision support for IBP, maximising financial performance, aligning with strategic approach and objectives (Schlegel et al., 2021; Seeling et al., 2021; Selmi et al., 2021). Here the finance becomes a key driver as IBP drives full organisational growth (Oliver Wight EAME LLP, 2020; Schlegel et al., 2021). New projects and goals are often set to improve Key Performance Indicators (KPI's) measurement and performance itself. Costs here mainly remain as in the level 4, but more accuracy and data leads to readiness to act before something happens, savings are made through advanced predictions and fast reacting responses to uncertainty (Vereecke et al., 2018; Wijbenga et al., 2021) Knowledge is shared to educate partners (Wijbenga et al., 2021). Understanding the current, opportunities, and future, the organisation has strategic valued IBP process (Selmi et al., 2021). The maturity model and literature show that establishing IBP as a strategically important process in a company's planning landscape, development of BDAC, and ensure recognition of IBP especially from executives are crucial activities to do. (Schlegel et al., 2021) BDAC is not seen as a pure mechanism to improve S&OP, but as an enabler, which allows dimensions. It

is showcased that IT solutions alone are not sufficient driver to stimulate S&OP maturation. People and process are first, but you also need technology. (Schlegel et al., 2021; Govindan et al., 2018). According to (Rantala, 2023; Kristensen & Jonsson, 2018; Selmi et al., 2021) IBP helps businesses. I tend to find how businesses see IBP and adopt solutions to upgrade S&OP to IBP or how have some done it. Also, whether enabling IBP is seen similar by professionals than the literature sees it.

2.4 Benefits of integrated business planning, process and technology usage

Advanced S&OP or IBP processes are linked to improved operational performance due enhanced forecasting and unity about the same view to the future and playing with same numbers companywide (Wagner et al., 2014; Schlegel et al., 2021; Stentoft et al., 2021). Beyond that, the true purpose of IBP is to achieve sustainable business growth, and this should be the primary goal of IBP (Oliver Wight EAME LLP, 2020). Literature showcases a wide range of benefits from IBP (Kjellsdotter & Jonsson, 2010; Pal & Dhir, 2011; Kristensen & Jonsson, 2018; Selmi et al., 2021) Integrated communication all over the company reduces reaction time company wide, where traditional S&OP doesn't usually integrate whole company to plan together (Danese et al., 2018; Stentoft et al., 2021; Nyman, 2023). IBP high maturity level capabilities can be used to arrange wide set of actions to gain many benefits from data is product fitting in retail as it can be improved heavily, as data can be used to manage customer relationships, improve material flows, assortment planning, and product development besides matching supply to customer demand, all working towards enhancing the whole business. (Gustafsson et al., 2019; Oliver Wight EAME LLP, 2020; Oviedo et al., 2021). IBP alignments have dynamic and low inventory costs, not to lose many sales with big product variety or to lose for obsolescence in retail, process being well-structured and enhanced from traditional S&OP (Gustafsson et al., 2019; Schlegel et al., 2021) Studies show that key benefits are operational efficiency, improved decision making, enhanced crossfunctional collaboration and business performance, risk management, streamed supply chain processes to lower costs and improve customer satisfaction, stay ahead in competition, and achieve long-term goals respond market trends, alignment of units to work towards same priorities and objectives (Pal & Dhir, 2011; Hollmann et al., 2015; Schlegel et al., 2021; Kumar et al., 2021; Almeida et al., 2021). Studies highlights firm performance benefits. Alignment and integration enhance the balance of demand and supply, different firm

functions and plans, improves them and makes horizontal alignment within the supply chain (Thomé et al., 2012; Ganbold et al., 2021). Cross-functional planning and data sharing is eased in IBP maturity (Danese et al., 2018; Oviedo et al., 2021). Then operational environment terms IBP improves forecasting, operational performance, reduces and manages inventory, stock-outs, and capacity resources, improves uncertainty and risk management, allocates critical resources, optimises supply capability, helps product launching, measures value creation and business performance, goals are met easier and strategic decisions are enhanced (Thomé et al., 2012; Ganbold et al., 2021) Result focused benefits like financial ones are business/supply chain enhanced performance, revenue improvement, customer service improvement, cost minimisation, demand distortion minimisation, conduct yield pricing and management. Trade-off benefits are increased and optimised profits, optimised customer service versus inventory, meet demand with reduced inventory, and meet customer needs with minimum cost (Thomé et al., 2012; Seeling et al., 2022). End benefits are gross profit return on space, return on net assets, gross profit on inventory, company/product/service profitability, and better contribution margins (Thomé et al., 2012;

Seeling et al., 2022). The organisations benefit more financially from IBP levels than traditional S&OP levels (Oviedo et al., 2021; Seeling et al., 2022). All this proceeds IBP benefitting firm performance. With BDAC and high maturity IBP can reach over 5 years planning and scenarios (Govindan et al., 2018; Schlegel et al., 2021) where traditional S&OP usually consists of 3-18 moth planning awareness (Thomé et al., 2012). BDAC increases organisations information capabilities and therefore enables efficient and effective S&OP or IBP. First step is to prepare data, then integration of decision making with relevant automated data with manual data as an addition. Manual data is prepared monthly. Automated dashboards visualize data from various perspectives during meetings and consequently allow analysts and moderators of S&OP or IBP gatherings to answer questions of executive participants immediately. (Schlegel et al., 2021) Technology investments play big role in IBP to harvest all necessary data (Gustafsson et al., 2019; Schlegel et al., 2021). Transparency and readiness to act on change such as filling hurry orders first can be eased with a united platform. Also united platform helps to control high volatility set of actions in production such as having over 10 000 products (Puro & Viitanen, 2024). These days tech side has given advanced opportunities compared to old times and this is where IBP level 5 maturity shows out (Schlegel et al., 2021). Big Data Analytic Capabilities (BDAC) enable Integrated Business Planning implementation by counteracting and increasing information processing requirements. Dimensions and factors about S&OP and IBP were very uncertain and

equivocated (Schlegel et al., 2021). BDAC and performance are in these days top in the level 5. Some companies have better readiness and resources to adopt IBP as they have more tangible BDAC. To have level 5 IBP, there should be BDAC applied to be able to use all the beneficial data (Schlegel et al., 2021). Forecasting is useful to avoid distributions. Valuebased Management (VBM) data-driven concepts are important in theories when shareholder value creation is a paramount business value (Hahn & Kuhn, 2012). Technology adoption is good to do when the process is very functional and tech necessity to enhance process and update maturity comes a key player that you can't enhance the process much more anymore without adopting new key technology, such as a platform (Kjellsdotter & Jonsson, 2010; Kjellsdotter & Jonsson, 2014). Forecasting is useful to avoid distributions (Hahn & Kuhn, 2012). Then in IBP very enhanced forecasting helps to plan for uncertain and more likely react on time as there are combinations of advanced scenarios in place as well as effective management and communication (Schlegel et al., 2021; Almeida et al., 2022). New product fitting is clearly improved with IBP as information flows are real-time data based and more frequent. Data can be used to produce more context-based products (Gustafsson et al., 2019; Bagni et al., 2022). IBP KPI's can be used to track new products real time and that way reduce costs (Bagni et al., 2022). S&OP and IBP do use sophisticated software to integrate other necessary business processes with IBP beyond business to consumers (B2C) to business to business (B2B) linking them and providing useful data for them (Plank & Hooker, 2014). This helps to gain benefits and have real-time data in IBP (Schlegel et al., 2021). Uncertainty exists as a measurement and a shared platform helps to share data and has a cohesive affection to predict uncertainty and plays a key role on sharing forecast results in real-time (Plank & Hooker, 2014; Schlegel et al., 2021) So, interactive marketing with real-time data is huge IBP benefit, reaching beyond B2B to B2C (Plank & Hooker, 2014; Kumar et al., 2021) Tactical planning is benefitted from IBP as long-term horizon is planned with data-driven decisions helping to understand uncertainty (Dreyer et al., 2018; Asmussen et al., 2018) IBP benefits businesses by widening access of information. (Schlegel et al., 2021; Kumar et. al., 2021). To make S&OP longer-term like 3-5 years and sustainable, Pal & Dhir (2011) claim an IBP necessity crucially. Planning together is a key activity in IBP. Pal & Dhir (2011) found that scalability, productivity, functionality, affordability, business visibility, process customisation and automation, total cost of application ownership, vendor management and support, long term cost of ownership, expense control and monitoring, unified processes across the enterprise, and decision making were all improved with IBP. This means the IBP investment cost is just an investment to get more income, unity, and stability in terms of

bookkeeping and business well-being, when successful (Pal & Dhir, 2011; Selmi et al., 2021). Strategy, finance, logistics, supply and demand, marketing, sales, R&D, HR, leadership, values, connectivity, teamwork, and many other things can be improved with IBP (Schlegel et al., 2021; Almeida et al., 2022). Prediction model algorithm flows are to help multi-strategy companies to optimise and predict with IBP (Pal & Dhir, 2011). IBP can benefit whole industries, supply chains, or variety of partnerships, not only a single company as the data can be shared to benefit together externally and internally (Almeida et al., 2022). This can unite companies of an industry or cooperations to limit total production to match demand and cut over-capacity of steel, oil, or other productions as an example (Almeida et al., 2022). This safes costs and can affect to sale price positively that adds value to company's value chain to benefit competitivity (Porter & Millar, 1985; Porter 2008; Oviedo et al., 2021). Literature says IBP makes businesses more sustainable, profitable, and being aware of surroundings, having a capability to react to changes (Selmi et al., 2021; Schlegel et al., 2021).

My interviews seek to find how similarly professionals see these benefits and are they similar. Like could there something that is not in literature or something that professionals haven't adopted much or haven't found as a beneficial outcome.

2.5 People and communication as a principle for successful IBP

Literature says people being the most important part in IBP (Kristensen & Jonsson, 2018; Bhandare, 2021; Oviedo et al., 2021) Even if you have great process and tech, but the people are not oriented, motivated, and aligned, the results won't be where they should be (Swaim et al., 2016; Goh et al., 2019; Freitas et al., 2020; Stentoft et al., 2021). Companies should continuously ensure their staff has necessary knowhow once new is adopted to company and that adopting new skills according to necessities of the new is continuous as interorganizational skills can have higher focus than intra-organizational (Lorenz et al., 2013). Personal skills are important to succeed in IBP (Stentoft et al., 2021). People create an interactive and cross-functional ambient to advance processes, being the first antecedent to success in IBP (Tsanos et al., 2014; Swaim et al., 2016; Stentoft et al., 2021). People oversee the IBP process (Schlegel et al., 2021; Almeida et al., 2022). To oversee, people communicate and meet frequently to discuss indicators (Collyer, 2000; Goretzki & Messner, 2016). To have successful IBP, the flowing communication is a key principle, discussing results, analysing them and wondering how we could do it even better. (Tsanos et al., 2014; Hollmann et al., 2015; Stentoft et al., 2021). Communication is a cross-functional planning function in IBP, followed by process and technology (Tsanos et al., 2014; Goretzki & Messner, 2016) Buyers and suppliers' top management interaction should be healthy to have effective supply ensuring alignment, and to build trust. The leadership plays very important role in internal and external communication in the whole process (Prabhu & Srivastava, 2023). Managers participating in pre, and executive meetings are responsible to spread positive energy and communicate changes that everyone understands where the enterprise is going and why to reduce and shoo away unclarity about some functions of the enterprise to unite everyone (Porter, 2008; Goh et al., 2019, Kreuter et al., 2021). Managers should also define and clarify company strategy at least in some level for everyone to help everyone understand why something is done (Porter, 2008; Oviedo, 2021) This helps to coordinate and create the united spirit, driving motivation and readiness to act plus this doesn't leave workers to guess and being in unclear of IBP and strategy in the company that they work in (Collyer, 2000; Goh et al., 2019; Stentoft et al., 2021). Effective and coordinated communication reduces errors and enhances team-spirit (Lorenz et al., 2013; Goretzki & Messner, 2016; Goh et al., 2019). Questioning results plus transparent and even a tense communication usually enhances the process (Collver, 2000; Tsanos et al., 2014; Hollmann et. al., 2015; Freitas et al., 2020) In IBP maturity level communication hierarchical accountabilities are forgotten and shared understanding and shared course of action are focused to outline process results, determining weaknesses to enhance, meeting goals (Tsanos et al., 2014; Goretzki & Messner, 2016). My interviews here seek to understand how people, process, and technology are seen in the S&OP or IBP process and how transparent and tense the communication is. Also, tending to find whether there are some common ground principles as a base of IBP that everyone includes to planning or similar, such as common understanding of the core that Mr. Rantala explains as people 70%, process 20%, and technology 10% as percentual importance's to run IBP successfully or similar explanations of what IBP is or other clear similarities (Rantala, 2023).

2.6 Literature limitations

Literature lacks some insights from the SO&P or IBP processes such as maturity models to determine alignment of certain parts in the processes (Kristensen & Jonsson, 2018; Danese et

al., 2018). Forgetting about contextual factors affection to the process is one of the red flags as that leaves core competence and variables away from the process as surroundings and industry lack attention to modify a process according to where the company is now and literature lacks context in many case studies and journals (Noroozi & Wikner, 2017; Kristensen & Jonsson, 2018). Findings also show that there are several gaps in the S&OP literature as it's not explaining enough how to design to create performance benefits for different industries. Many articles are general or about one industry. Literature also lacks cross-sectional studies on different industries in terms of S&OP adoption, maturity, and design (Kristensen & Jonsson, 2018). I found some cross-functional case studies, but there could be more. I didn't find much literature on how the marketing team and other data gatherers are also important to send data to demand team to start the S&OP/IBP monthly cycle (Plank & Hooker, 2014). Literature lacks studies where S&OP exactly turns to IBP maturity. But reading enough, there came a picture when. I didn't find much literature about specific tech tools used in IBP, like some of this can be confidential, but researchers could do more technology research with the tool makers to gain beneficial outcomes to literature and companies. Generally, there is not much literature using term IBP yet, but some papers access IBP level maturity using advanced S&OP term or just S&OP. Again, the terms are mixed. Then there is a clear lack of behavioural and personality indicators affecting to development and engagement in S&OP/IBP processes, that is a key in IBP as the literature sees people as the most important part of S&OP/IBP. (Stentoft et al., 2021). Literature lacks some insights from the SO&P or IBP processes such as maturity models that briefly determine alignment of certain parts in the processes as many are general (Kristensen & Jonsson, 2018; Danese et al., 2018).

3 Method

This chapter provides information how I collected data, analysed it and built a framework to answer my research question.

3.1 Qualitative research and inductive interviews

Qualitative research collects non numerical data (Myers, 2019; Gioia, 2020). It aims to understand opinions, concepts, or experiences like to get better understanding through actual conversations, reporting, quoting, and experience (Myers, 2019). Qualitative methods allow researchers to count contextual factors into the research and analysis giving a capability to wider understand phenomenon in organisational research as contextual factors can be included to analysis instead of considering only factors that can be measured (Gioia et al., 2012; Gomes et al., 2023; Myers, 2019). Qualitative researchers usually make a causal claim and power it with analysis from data they've gathered (Aspers & Corte, 2019). Power of qualitative research is to generate and elaborate new theories. (Glaser & Strauss, 1967; Gioia et al., 2012; Aspers & Corte, 2019). There is a growing consensus that qualitative research is relevant for strategy and management of a business (Gomes et al., 2023). This research type suites well for my research question as IBP is often seen as a strategic and management choice (Dogan, 2014; Nyman, 2023). Thus, my research question makes more sense to respond qualitatively (Gioia et al., 2012; Gioia, 2020). To have context-depended process, there is no certain one way to do it. Interviews are likely to correspond better to a variation of ways how to do S&OP or IBP in context that the interviewee works in (Gomes et al., 2023). This is one of the reasons I collect data qualitatively and respond to my research question not basing the answers according to a certain one existing assumption about how IBP should be done as it can be done well in many ways (Hahn & Kuhn, 2012; Pal & Dhir, 2011; Schlegel et al., 2021). Moreover, I want to use qualitative research to be able to showcase differences and similarities also contextually, which is difficult to do quantitatively (Aspers & Corte, 2019; Myers, 2019). Many professionals back qualitative methods when the analysis and results are transparently described (Gomes et al., 2023; Gehman et al., 2018). The style of qualitative research is to get in there and get your hands dirty to gain more internal knowledge that should lead to better findings from the organisational research (Gehman et al., 2018; Gioia 2020). All though there are limitations, qualitative research doesn't always meet the top qualifications, if there is not enough reasoning for a framework, or results are uninspiring and dull that they don't showcase that there is something important to say, or there are some lacks concept and systematic approach (Gioia et al., 2012; Gioia, 2020). Concerns can be how there is a convincing answer from qualitative research. Gioia states that qualitative research must have informant-centred and theory-centred data and findings plus a theoretical insight. Obviously, qualitative research allows me to understand how IBP is done

in real world as a first-hand experience (Myers, 2019). In line with suggestions by Wicks (2017), the goal of my interviews is to create a framework that stands out being created from as many as possible different aspects to have a general one on how IBP is continuously done successfully and could be applied and modified to usage according to the contextual behaviours of certain company or industry (Gomes et al., 2023). Important things to remember in these interviews are following ones: permissions, respect, and fulfilment of commitments to organisations and individuals such as keeping confidences, records as well as other classified or restricted information as confidential and provide early feedback with organisations and individuals before presenting of results and findings (Myers & Newman, 2007). Qualitative research data analysis can be processed by coding (Wicks, 2017; Gomes et al., 2023; Gioia et al., 2012) The codes do not necessarily need personal information or company name as the industry and other points based on my interview questions count as factors that differ the samples, so participants can participate anonymously that is likely to allow them to open up more about their actions in terms of how they are doing and why that way (Gomes et al., 2023). This is a crucial standpoint for my interviews that helps me to reach my interview goal. Interviews tend to find whether there are industrial differences of IBP design, maintenance, accuracy on forecasting, different Key Performance Indicators depending on industry or company or something else that depends on context. I intend to find these differences interviewing persons with different contextual circumstances within their enterprise and industry.

3.2 Data collection

Gioia methodology is a qualitative data analysis method to build a theory or framework, that meets the associated rigor of trustworthy research. It aims to overcome the lack of systematic evidence found in some qualitative research (Gioia et al., 2012; Gioia, 2020). It brings qualitative rigor approach while it maintains creative and potential generating of new ideas and concepts that qualitative research is known for. (Gioia et al., 2012) These theory approaches are appropriate to build a theory in many different fields, including International Business (Magnani & Gioia, 2023). Gioia method enables you build new theories or frameworks based on your iterative collection and analysis of real-world data including contextual factors that are underlaid to give a wider range of understanding and development of new concept than only dimension that can be counted measurably (Gehman et al., 2018). The method relies more on transferability than validity. (Gioia et al., 2012) "Concepts are

precursors to constructs". (Gioia et al., 2012). Understanding an experience from interviewees is taken into the concept (Gehman et al., 2018). Gioia method helps to understand lived experience (Gioia et al., 2012; Gioia, 2020). Gioia et al. (2012) are concerned about traditional approaches as advances in knowledge that are too strongly sourced to what we already know delineate what we can know about a chosen topic/phenomenon. This is one of the motivational reasons I chose Gioia method. In Gioia method we usually focus on one case, then people are interviewed over time, documents are analysed, then study interpretations of the events from interviews and how they shape the research topic, in my case how IBP is done well continuously (Gioia et al., 2012). Gioia method is useful when there is no existing theory to answer, or existing theory or data is incomplete. (Gehman et. al., 2018). Gehman et al. (2018) have done a comparison of three different qualitative models to identify what kind of methodology is the best for different studies. Based on this, I analyse my codes using the Gioia model as it suitable for my study (Gomes et al., 2023; Gioia & Magnani, 2023).

I interviewed IBP professionals like managers, planners and others from different companies, and industries, to collect different data samples. I continuously collected data from interviews and analysed it in a theoretical samples cycle iteratively. I did a theoretical sample process that has three parts data structure according to Gioia et al (2012). This model originates the model of Glaser and Strauss (Glaser & Strauss, 1967; Gioia et al., 2012). First order codes were coded directly based on what the interviewee said, and second order themes included my judgement as I started grouping first order codes (Gioia et al., 2012). This theoretical sample process that Gioia has in his method process, facilitated my showcasing of systematic evidence, and described my strategic decision to arrange qualitative concepts accordingly to these three parts to understand and analyse my interviews dynamically (Glaser & Strauss, 1967; Gioia, 2020). Interviews were guided according to my research question. I based to how to do IBP successfully continuously (Gioia et al., 2012). I used Microsoft Teams recording and transcription mode that automatically created a transcription file as a data sample from each interview. I recruited some people first, did my best to have them recruit more, and did recruit more myself later in cycles. (Magnani & Gioia, 2023) In total, I collected more than 11 hours of empirical data. Interviewees represented various countries and most of my interviewees had very global experience. I used English, Finnish, and Spanish to offer interviews in interviewees national language. All the interviews were done as anonymous as I and interviewees preferred, but I have revealed industries that have

participated to attain value for readers. Raw data 1st Concepts contains empirical data from pharmaceutical, tech and lifecycle solutions, industrial machinery, electrical equipment, oil refining and marketing, home appliance manufacturing, communication and information technology, retail, food, beverage, transport and logistics, consultancy, desktop and mobile devices, research, gardening, cooking, creating, service, industrial equipment, and port solutions industries, in total 20 different industries. I did sixteen interviews and created a table figured soon here as table one to represent the industrial knowledge that my interviewees represented. Also, the process name whether they called theirs as S&OP or IBP, working role, and interview length are figured. Mostly, IBP was high maturity and S&OP lower. Some did consider IBP as higher maturity S&OP or advanced S&OP, having the same idea, but again different term to describe it.

Interview	Industrial	Process name	Working role	Interview
number	experience			length
#1	Beverage	IBP	Supply Planner	30min 28s
#2	Research, Retail	S&OP and IBP	Manager,	57min 9s
			Lecturer	
#3	Pharmaceutical	S&OP	People,	33min 53s
			Procurement	
#4	Transport and	S&OP and IBP	Senior	39min 58s
	logistics,		Consultant,	
	Consultancy		Supply	
			Managing	
#5	Retail, Senior	IBP	Senior	34min 16s
	Consultancy		Consultant, IBP	
			process	
#6	Industrial	S&OP and IBP	S&OP Manager	32min 7s
	machinery			
#7	Home appliance	S&OP	S&OP Supply	64min 4s
	manufacturing,		Professional	
	Mobile devices			

#8	Oil refining and	S&OP	Process	36min 25s
	marketing		Exellence	
			Manager	
#9	Electrical	S&OP	Process	22min 21s
	equipment		Manager	
#10	Consultancy,	S&OP and IBP	Coach &	35min 1s
	Research		Consultant	
#11	Industrial	S&OP and IBP	Strategy &	35min 26s
	equipment, Port		Development	
	solutions		Manager	
#12	Mobile devices,	S&OP	Senior Lecturer,	60min 34s
	research		Manager	
#13	Gardening,	S&OP	Supply Chain	35min 54s
	cooking, creating		Manager	
#14	Consulting, tech	IBP	Data	30min 33s
	solutions		management,	
			Consultant	
#15	Food	S&OP	Demand	55min 48s
			Planning	
			Manager	
#16	Service, Desktop	S&OP and IBP	Senior	69min 39s
	and mobile		Consultant &	
	devices		Trainer	

Table 1 Interviewees with their experience, numbered from 1 to 16 according to the time of the interview, one being the earliest.

3.3 Data analysis

Gioia's data structure means to break my samples from an interview round to concepts that are 1st order codes. These parts are 1st order concepts from my interviews, 2nd order themes that can identify interviewees into groups according to their answers, and third is to aggregate dimensions made from these groups (Corley & Gioia, 2004). These are just raw data samples like what the interviewee said exactly. Analyses are started from the concepts found during first interviews to group them according to what they said (Gioia, 2012; Corley & Gioia,

2004). After an interviews cycle, I analysed my data from interviews whether outcomes were similar or not, then I started another cycle to get more samples. Overtime, I compared my 1st order code concepts and saw whether they changed (Gioia, 2012; Corley & Gioia, 2004). Afterwards, I went again to collect more samples by interviewing. Once I started to have many concepts in a same code, I created 2nd themes according to similar answers from interviewees (Gioia et. al, 2012; Corley & Gioia, 2004). So, in 2nd order themes part the raw data samples included my judgement. Again, I went to get more and more interviews and group the codes to these themes identified before (Magnani & Gioia, 2023). Once there were enough codes/concepts in themes, I appropriated a dimension from the theme (Gioia et. al., 2012). Some of the dimension came faster than others. Then, once I had identified related dimensions that there wasn't not much volatility among concepts and themes, I built a theory from this data structure according to (Gioia et. al., 2012; Magnani & Gioia, 2023). My theory provided with Gioia method aims to understand how to be successful in IBP continuously, pointing out positive and negative structures to see what is done generally and what isn't (Gioia, 2020). I have explained data my gathering and analysing process also here in the figure seven.



Figure 7 Data structure and process.

3.3.1 How I sell a value for professionals to participate

To sell the value of an interview to IBP professionals, I built a small speech to use as a base in my cold calls to book meetings fast and started to collect my data in circles. In my speech, I included points like valuable investigation for free to know in what level your IBP understanding is compared to general or sharing professional thoughts or interest to discuss. If a company publicly gave its name for me, I was able to advertise that hey this company is with us too, you should be as well, or you'll miss some key competence (Johnson & Hawk, 2020). More important was to give options and freedom for participants to gain trust and get to

the same side of the table with interviewees. Voice tone, listening, breathing, quiet space, and clear language were important to consider on a cold call as well as in the interviews (Johnson & Hawk, 2020). Only ten minutes of your time can be very valuable for your future when the results come out. To book time slots, I just used Microsoft Teams or Zoom and calendar inside these apps. I stored my data samples as docx. form to Arcada Office365, and to my computer. Then, I used LinkedIn social media channel to promote my research and to repeat my thoughts if I was googled after the call (Johnson & Hawk, 2020). I also used LinkedIn free features to contact professionals, as I didn't have premium profile. This meant that I searched IBP and advanced my search to find people. I sent friend requests and a simplified message, once someone accepted me, I started a conversation telling my reason to contact and directly offered interview times. Overtime, I compared longer and shorter message and found out that shorter message worked better to catch more interviews. During an interview with one professional, he linked me (Suomen Tuotannonohjausyhdistys) Finland's production management STO webpage, that has some S&OP/IBP professionals to contact via phone and email. That opened another channel. Via this channel, I was able to interview everyone who replied to me via LinkedIn, Email, or cell phone. To picture my selling process, I created a funnel to describe and showcase it. In the funnel, loyalty part means that my interviewee was very satisfied and recommended my interview to others, went very deep into the topic and usually shared material that he or she has studied and uses in his or her work currently. Every interviewed professional was interested to see the results. This correlated that my thesis gave a value for participants to find whether their process lacks something in general.

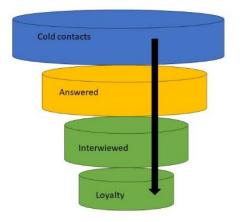


Figure 8 sales funnel to explain my interviewee contacting process.

Sales went quit well and I didn't have to use that much time or make that many calls than I thought in the beginning and that surprised me. LinkedIn came out as a useful channel to find professionals that agreed to give an interview. It was sorted out as a faster channel compared to seek company webpages contact information sectors and spending more time on searching the contact to cold call. I felt interviewees were very interested about enhancing S&OP to IBP as it was a very present topic for them. Interview numbers, 2, 4, 5, 6, 8, 11, 13, and 16 were very loyal and offered any kind help and material for thesis, which was great. Every interviewee wanted to have the thesis to check results, and that also gave a feeling that there is interest for this topic.

4 Results

This chapter presents detailed findings from the interviews as 1st order concepts that were group coded to 2nd order themes, then dimensions that led to theory answering to what does it take to do successful IBP based on an existing S&OP process. I have directly quoted the most important sentences from the interviews that illustrate where the dimensions/conclusions came from. These quotations from one interview at the time represents a group, so many interviewees have spelled out similar answers with the quoted one. The following graph represents my interviews data structure, which led to these dimensions. To interpretate my data I have created subtitles for each of the dimensions to open why my data analysis led to this result with fascinating insights powered by quotations. I used interview numbers earlier mentioned in chapter three industrial knowledge table 1 to allocate exactly who said what to power the results.

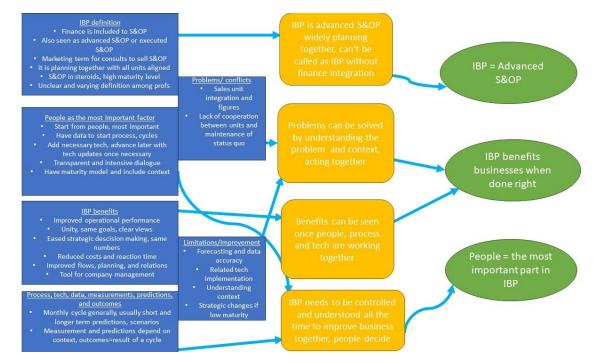


Figure 9 Dimensions according to Gioia et. al. 2012 Data Structure, blue is 1^{st} concepts, yellow is 2^{nd} order themes, and green is dimensions.

4.1 IBP is Advanced S&OP

IBP definition was one of the clear outputs to find how IBP is seen in the industrial business world. That helped to determine how companies see the business planning process development and what it takes to get to the IBP. IBP is advanced S&OP wasn't the fastest dimension to born from the interview cycles, but at the end it was the most common answer to come out to define IBP. But words advanced, executed, and especially matured gave the result.

"Integrating financial aspect, looking beyond numbers and strategic targets for longer term are IBP maturity", (interview #5)

said and that is information as compressed that I received from my interviews. To describe one way how IBP maturity then is higher than S&OP as IBP is advanced from S&OP with financial insights and connectivity in maturity levels four and five, sharing data real-time, as well as very broad integration of partners and units, where this company is going from level three to four, even five, but is not 100% clear about the exact current maturity says following,

"In business, maturity is kind of like a bear mask in IBP and in that sense, literally probably quite true. Maturity is starting to be a little higher perhaps even in us. We are also there at level 3 3 line 4 through 5, so yes, it is maybe then so, but is more that of course there is the money connection always exist in the background, but then it is perhaps a bit broader perception of this sort. Maybe this whole IBP context, I think that talking about the fact that integrating the process with different parties, functions and even then, exported to outside suppliers and subcontractors' integration, it shares data in real time. It is then the way we execute IBP the next degree in our process, but it is a bit that how it wants to understand that if the company is there as maturity, or in S&OP path the early stages, so then it will probably be the starting point, that the aim of IBP is to find the connection and mechanism in a way so as to combine money and real processes". (interview #11)

So, IBP is a tool to connect and have real-time data. It is not only a supply chain process. It is beyond connecting strategy and fastening data sharing as well as improving data availability in real-time. I used a question how you would describe IBP as a professional and other questions relating how IBP is done in different contexts to gather data surroundings what IBP is. Before this question, I asked what kind of planning each professional is doing to find whether there are differences in IBP definition with people doing S&OP or IBP. Mostly I was given responses that it is S&OP with high maturity, finance is included, high tech solutions are implemented to help and unite faster communication, enhanced forecasting and data quality improvement from professionals doing S&OP and IBP. Importantly, before adapting IBP, professionals in interviews recommended to have an S&OP process for basics like matching demand and supply and align demand, supply, and sales with same numbers and vision.

"It's also extending to other department as financial planning and marketing planning, and not only the operational part", (interview #1).

Once this is well done, then it makes sense to increase maturity overtime having the S&OP core as a base to little by little make the process to widely benefit everyone the whole company, not starting with high tech implementation before understanding the process. The description unveiled that only S&OP process does not give all the advantages what IBP process gives as the maturity is lower, but it is not obligatory to call high maturity level as IBP, you can call high maturity also S&OP.

"It is a marketing term to sell it as something totally fascinating and cool, they have put the finance there to sell it as something new, but you can do higher maturity just calling it S&OP as well without fancy names", (interview #10).

IBP advantages are widening the process from traditional S&OP that affects decision making and manages company with allocating also financial resources and all units, even marketing and research and development (R&D). Everyone doesn't want to call high maturity S&OP as IBP, Also, it can be called as advanced or executed S&OP as well. All these terms can be also used by consultants to sell S&OP processes, promising the stars from the sky on selling high-tech Information and Communication Technologies (ICT) solutions, but it is important to have clear process and need to adopt these advanced solutions. Most of the professionals that worked around S&OP were very clear what the IBP is and what should they do overtime to upgrade to IBP as they had clear plans to develop higher integrated planning processes involving finance unit and at very high stage have IBP as a tool for company management.

"Uhh, it's like to have advanced tools to support the process and have a company management tool for CEO too", (interview #8).

All of this is a part of the result why IBP is advanced S&OP.

4.2 IBP benefits businesses when done right.

The benefits were clear goal to find out from interviews to understand why someone needs IBP and what are the advantages. Interviewees gave a plenty of examples that how they have benefitted from IBP in mostly general level not unveiling their strategic approaches and classified things normally, also there were some classified examples, but anything any classified information, companies or any interviewee names do not appear in my thesis. IBP basically rises beyond S&OP by advancing tactical decision-making and comprehends long-term strategic planning like 5 years or so.

"IBP allows organizations to identify and address potential risks, the process evaluates new market opportunities, and makes informed decisions about resource allocation and capital investments", (interview #11) articulated. "Mm, of course we have seen improvements in efficiency and decision making", (interview #1).

I wanted to also rise marketing perspective example here that I noticed in couple of interviews as high maturity IBP can be very effective tool to forecast trends in rapidly changing surroundings like beverage or food industries regarding to my interviews as daily goods process is quite fast paced usually regarding to trends and expiring date. For this reason, high tech IBP maturity trend AI-powered forecast is unreal for daily goods or any very fast chancing industry like clothing regarding fashion trends that is harder to reach with traditional S&OP maturity.

"Demand gets loads of data from marketing and finance, then we get it from demand", (interview #1).

For some, going IBP included technology implementation like Anaplan, SAP, Streamline, or Omega IBP as advanced platforms to communicate via the same place with everyone and use other features that help the process to go beyond and have more advantages for business. These IBP tools are easy to connect to existing enterprise resource planning (ERP) tools.

"I'm doing S&OP, but we have clear goals to advance to IBP as we have good S&OP now working. We are going to implement some tech to widen our analytical capability", (interview #6).

Big data analytics capabilities (BDAC) require investment and usually bigger companies have investing capability to advance their S&OP to IBP with BDAC. That is one of their competitive advantages in many cases as information processing capability increases tremendously BDAC is used right in the context. My interviews clearly gave me an image that IBP plans need to be aligned with goals to achieve benefits wider. Demand teams can use AI to forecast. Added to usual S&OP maturity estimating price elasticity, seasonality, proprietary AI can explore sales history to the future faster than human can. This way IBP helps to keep better eye on stock keeping unit (SKU) together with human in planning. IBP maturity level inventory should have a capability to synch order dates across SKUs. Many told me that they are using economic order quantity (EOQ) calculation in inventory planning part to minimize holding and order costs. In addition to classic EOQ where it is calculated per SKU, in IBP maturity group EOQ calculations can be used to buy orders according to group EOQ synched dates to apply effective minimized holding and ordering costs easier than using per SKU EOQ calculation. Small and medium-sized enterprises (SME) can advance to IBP, if necessary, like you don't have to have million dollar or euro tech solutions to have IBP maturity level. For everyone who called high maturity as IBP in my interviews, the high maturity is advanced communication when done right and usually there is more data is inside the same platform and the tech is applied to handle the data correctly, not only having same numbers from excel. Streamline tool for example can be used for SME companies or many other tools.

> "Everyone is doing planning, but it's just the maturity that where the plans are going and how accurate they are. I have consulted many very different enterprises during many years", (interview #5).

Effective communication reduces reacting time and improves understanding of common goals and values. Also, that way the IBP can be expanded to external network that benefits together like interacting with other businesses in the supply chain. Also, this can be done without having IBP, but IBP tech side helps to communicate faster and wider enhanced decision-making with united data platform all around the company internally or even surroundings externally that include partners and cooperations.

4.3 People are the most important part in IBP.

In my interviews, people came out as the most important core part for doing IBP, followed by process and technology. This was a clear thing I wanted to find out in the interviews whether professionals from different industries align with these percentages or not as I found it as very clever from day one. The interviews corresponded well to showcase a proof that the importance of people overtakes the process and tech in the real-world industries by a milestone. There were only some participants that didn't answer directly people as being most important in the core of IBP that has these three parts, people, process, and tech. So, this was the clearest dimension to have as a result. Without people there is no process or tech.

"I would say that of course people are always important at the need for them and then then the process of course that we have a solid process, clear roles and responsibilities and clear what we are optimizing and then when we when we get that running then we can utilize the technology.", (interview #8)

Once the process maturity is very high, tech can be used to reduce natural human error. People are the ones that raise the maturity level together. People are in the lead of the rest like process and tech. Process also is very important element to be able to react. Basically, people decide, they collaborate across the functions, like all different business units consist of people with specified knowledge to work in certain part of the business process. They are the ones that drive the process forward, they rise maturity. They are the ones adapting new methods, like using AI for example. People do make the communication and train AI and develop the company and process advantages further. My interviews unveiled me that many organizations are powering people which means they give authority, resources and capability to make decisions that benefit the company that showcases they believe in people in their S&OP or IBP maturity level process. For people values and company culture can play big role whether they are trained in the company and how success is rewarded, and especially how intensive and effective the communication is to decide and react. It is important to analyze and follow communication.

"People are the most important, then process and tools follow", (interview #4) According to my interviews analyzing the communication can help to follow alignment and interest from participating parties. Communication in IBP should identify and solve crossfunctional issues that rise between units like for example a conflict between sales plus demand and then production and supply to meet the demand forecast made by sales and demand teams. Like solving tit before the issue gets bigger. People allow IBP to be a company management tool aligning together on strategic direction, product and service portfolios, demand, supply, and financial alignment also as a forum for stakeholders, communicating on key decisions and having a consensus to make best decisions having company advantage in mind considering all perspectives.

"People, and the reason is that you have you have key personnel with very good professional skills. And, if those key people are also very good at communicate between themselves, then you have a very good system to secure that you are working in the right way and you are taking care of the problems that that are coming up", (interview #7).

People also make action plans that can be also called as smart plans, Specific, Measurable, Achievable, Relevant, and Time bound (SMART). All of this is done by people, enhanced communication and collaboration is a key to have good process and tech solutions. My interviews gave me an image that I had before them too, people still control robots and want to continue to do so as it is safe and comfortable, but the tech aspect is growing and giving planning process advantages that are very hard to achieve without BDAC, platforms, and AI. Clearly, people and process should be in a good understanding and maturity before technology adaption. All of this explains the result why people are the most important in IBP.

5 Discussion

This chapter provides meaning, importance, and relevance of my results, combined with literature. Also, limitations and recommendations to further studies are examined here. In this way, the results are meaningful for anyone to implement new stages or levels within S&OP or IBP process, just generally check and read valuable information once the topic is interesting for a reader or use the paper as a reference in bachelor studies or wherever.

5.1 Summary, interpretations, and implications.

Successful IBP starts from successful and traditional S&OP, advancing to IBP, like an evolution making the S&OP companywide. Literature and many interviewed professionals

described that the planning process can be IBP once the finance is incorporated well to provide real-time insights (Seeling et al., 2022). Also, in IBP stage, strategy should be a part as IBP should ease strategic decision making too (Oliver Wight EAME LLP, 2020). Interviews and literature combine that people are the most important part in IBP core, that is people, process, and technology (Rantala, 2023). Then literature and my interviews unveiled that IBP/ advanced S&OP/ S&OE terms are quite mixed, but they mean higher maturity level, upgraded from the traditional S&OP process going from my Danese et al. (2018) based maturity model level 3 to 4 and 5. It was unexpected to find these terms as such mixed in the interviews. But sets of actions were quite similar in literature and interviews like what they do to do IBP or S&OP successfully. I decided to use Kristensen & Jonsson (2018) contingency framework to describe what variables should successful S&OP include. Small amount of the interviews didn't know what the difference between IBP and S&OP is, and some said it is the same thing, for some IBP is just a consultant marketing term to sell S&OP processes. It sounds better and new once there is a new name. Also, some literature that clearly approaches IBP maturity model levels 4 or 5 activities, doesn't use the term IBP as it is still relatively new form of business planning. The most interviews still definitely viewed IBP as advanced S&OP, going beyond demand, supply and operational functions balancing to a companywide, strategic process as a tool for CEO. Then literature analysing IBP, using term IBP widely supports IBP as an advanced S&OP and clearly describes benefits that can't be reached with only traditional S&OP maturity, but again the terms differ heavily in the literature too, as some literature describes similar functions as cross-functional S&OP or advanced S&OP and others as IBP. There should be more literature about IBP term, maturity and adoption of new, but I still found some literature that has more specified maturity and adoption investigations. Also, I found that literature lacks studies about importance of people in S&OP and IBP and the communication analyses in S&OP or IBP. IBP is to enhance S&OP process and widen it to a companywide, strategic framework/process/tool to grow profits company wide, react faster companywide with same numbers and views, to enhance strategy and develop change according to industrial environment and surroundings (Oliver Wight EAME LLP 2020; Schlegel et al., 2021). It's to prevent company from not reacting to a change. IBP truly is advanced S&OP that goes beyond supply chain responsibilities as a tool to manage a company, like a tool for CEO and managers (Oliver Wight EAME LLP, 2020). Interviews and literature unite IBP being advanced S&OP. IBP benefits are clear when it done right according to the context. Clear IBP advantages are sustainable business growth, transformation ability, unity, strategic focus, and readiness to act on changes (Almeida et al., 2022). To succeed in IBP, first good working S&OP process is

considered as highly recommendable to success in IBP by widening the S&OP functions to whole company and operating cost-effectively cross-functionally in the whole company (Kristensen & Johnsson, 2018; Schlegel et al., 2021). Determining the process maturity is one way to understand what kind of process it is and where is going. It was found in my interviews and literature, that higher maturity level allows IBP or advanced S&OP activities (Danese et al., 2018; Kreuter et al., 2021). My thesis recommends maturity model usage from day one to know where the process is going and how to improve, later how to create change (Oliver Wight EAME LLP, 2020; Kreuter et al., 2021) I chose Danese et al. (2018) model. Remembering the context, this is just my chosen maturity model description example to enhance S&OP and to identify areas of improvement. Some contexts may apply other models better. Results include context being totally important all the time. With maturity model it is easier to avoid also consultants selling IBP as S&OP maturity with higher price tag as maturity model eases maintaining status quo about what is happening, why and how.

Key points to determine when S&OP turns to IBP and how these two terms differ are IBP being advanced communication and data systems, like a platform where the whole company is united and willing to communicate. Like the units can easily find real-time data to use and benefit together, usually using a platform. Then in any case, finance must be included to reach IBP theoretically (Oliver Wight EAME LLP, 2020; Bhandare, 2021; Nyman, 2023; Rantala 2023), but the finance should provide real-time insights in high maturity that my thesis considers as IBP, because finance can be united in quite early stage too (Wagner et al., 2012). But it doesn't provide real-time insights and does not have a leading role in early stages of maturity (Danese et al., 2018; Seeling et al., 2021) So, it needs to provide real-time insights and participate in planning to plan and act together all the way to strategic approaches. Also, high-tech and realtime data insights, advanced forecasting capabilities are a part to define IBP maturity. Again, terms are mixed, so some call these functions as advanced S&OP or just higher maturity S&OP. Many companies lack a common vision and willingness to update the maturity of their process, although they can be capable (Dreyer et al., 2018). For some it is not necessary to go higher level now, but for many it is. People and process exists. People need to understand what more they can achieve to benefit business from their existing process. This needs managers and CEO to push changes through with a united spirit, making sure everyone understands why and how do I and how do we benefit. According to the interviews general picture, the importance of communication and people is higher most of the literature describes as literature can be quite theoretical and mathematical many times. The literature and interviews unite IBP benefitting

businesses once done right according to context. You need skilled and motivated people, clear process and necessary technology to succeed in IBP. I have built a framework as a figure number ten here to unite the literature with my interviews to allocate what it takes to have successful IBP, evolving S&OP to IBP.

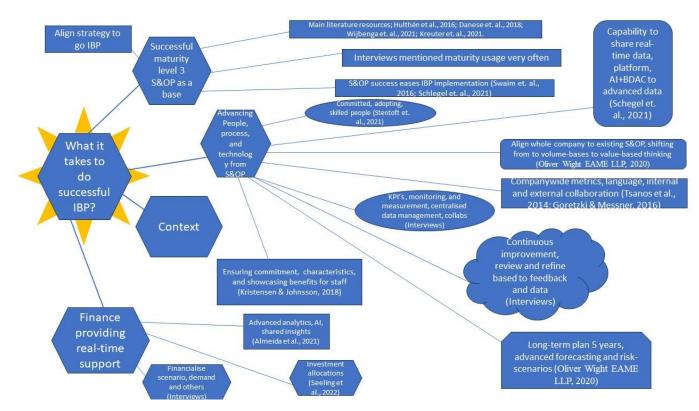


Figure 10 Framework about What does it take to move from S&OP to successful IBP combining literature and interviews.

5.2 Limitations and recommendations.

My thesis is limited to general knowledge on how to do IBP successfully, it doesn't specify any industry or company or just one part of S&OP or IBP process as a context. This paper answers to how S&OP is enhanced to IBP in general and to what these processes are and what it takes in general, so to scope and study certain company or industry, I recommend seeking specified studies about certain industry, process part etcetera to give company for this paper. Then my chapter 2.6 scopes what limitations my literature review has and what I hoped to find more to read and add to this paper. According to literature and interviews IBP limitations and challenges are there, such as amount of data and quality, complexity, lack of support or resources, resistance, and communication issues. Also, some confidential information was not provided for me, and if was, it isn't here in the thesis as my thesis is common and does not represent certain company or industry. So, my empirical data is limited to how to succeed in S&OP and IBP generally, it isn't scoped to a certain part of the process or to a certain industry or a company as a case study. I recommend further study communication effectiveness in business planning processes, to further investigate technology implementation and the maturity allocating when the technology is implemented and successfully used to provide more benefits to current process, and whether it updates the maturity level of the process succeeding enough. Also, studying more how communication affects decision making. I recommend further study to advance with IBP as the coming years will offer more IBP based material and companies as IBP still is relatively new form to advance S&OP to companywide, strategic planning execution tool/framework/process. For sure now, some might keep it confidential to achieve competitive advantage at this point. Many in the business world are implementing BDAC and other upgrades and once this comes more adopted, studies could be widened about IBP processes, doing case-studies publicly about adoption and benefits as these will be more commonly adopted features and won't gain much direct competitive advantage anymore. People are the most important in IBP, I suggest to further study the importance of people in IBP processes as many studies focus generally on the process inputs or technical, or mathematical side. The difference of S&OP and IBP should be also researched much more in the future as there clearly is a difference. IBP could be concepted to lead governments and other institutions finances to work together to enhance their financial situation. It's a wild idea and for sure needs a heavy communication improvement in government parties and institutions, but it could help governments to track their investments, enhance unity and economic performance. Anyways, that's also a research recommendation, government working like LTD company with IBP gaining those benefits that companies do.

6 Conclusion

This chapter sums in conclusion what does it take to move from S&OP to successful IBP enhancing S&OP. IBP is strategic organisation management tool for the whole company and CEO. People, process and technology are three obligatory parts to do IBP, people being the most important. Maturity model and context belong to success in IBP. Traditional S&OP is a supply chain process, balancing demand and supply, improving enterprises vertical and horizontal alignment, not including real-time insights and a leading role from finance and companywide strategic approach, this is where IBP or advanced S&OP comes in, both terms meaning same outcome that IBP is advanced S&OP. S&OP should be evolved to IBP, when

its known that all possible features and benefits are well working in S&OP and it is recognised that this process can claim more and needs to be enhanced to achieve the goals and demand of growing data needs, accuracy, faster companywide reaction, communication, and strategic approach, like things that are not there with current S&OP maturity, but provide a clear advantage when implemented, that makes sense to enhance the process. Indeed, IBP is recommendable created advancing the process maturity from traditional S&OP as an evolution to the existing S&OP process. My thesis recommends having a successful S&OP first, usage of a maturity model from day one, and including the context always to S&OP to success as every company and industry are different, then spread the success to whole company and go IBP, making the S&OP ideology companywide, adding every unit to succeed together with same strategy, numbers, language, values, insights, and goals. It is important to secure that the existing process works, before adopting new, if doesn't work find why it doesn't work and make it work before adopting new to avoid bigger mess of uncertainty. My results see people as the most important part in IBP, solving problems and creating transformation, followed by process and technology usage to do so, having most IBP success prioritising people as number one. Communication flow and unity are very important to succeed in IBP, aligning company. Highly motivated and skilled people follow the process and use advanced tech to get the best possible data out, leading to best possible results according to set goals. In short, IBP really is planning together. IBP has various benefits to business once done right, such as sustainable business growth, unity, strategic focus, organisational transformation, and readiness to act on changes. Continuous, transparent, and measurable process evolution is considered as successful in my thesis. IBP can be used to gain significant competitive advantage, especially if competitors are not having IBP. This thesis can be used to implement S&OP or IBP, it can be used as reference in bachelor studies, to read as general information about S&OP and IBP or to what ever the readers want to. My thesis results give value about benefits of S&OP and IBP, how to generally do them and how to enhance them. This thesis conclusion is based in over seventy peer-reviewed articles, Oliver Wight EAME, Gartner research, and more than 11 hours, of empirical data from 20 different industries, giving value for readers with transparent and academical resources to know exactly where the data comes from and why the results are like they are.

7 References

- Adrodegari, F., & Saccani, N. (2020). A maturity model for the servitization of productcentric companies. *Journal of Manufacturing Technology Management*, 31(4), 775– 797. <u>https://doi.org/10.1108/jmtm-07-2019-0255</u>
- Almeida, J. F. F., Conceição, S. V., Pinto, L. R., Oliveira, B. R. P., & Rodrigues, L. F. (2022). Optimal sales and operations planning for integrated steel industries. *Annals of Operations Research*, 315(2), 773-790. <u>https://doi.org/10.1007/s10479-020-03928-7</u>
- Asmussen, J.N., Kristensen, J., Steger-Jensen, K. and Wæhrens, B.V. (2018), "When to integrate strategic and tactical decisions? Introduction of an asset/inventory ratio guiding fit for purpose production planning", International Journal of Physical Distribution & Logistics Management, Vol. 48 No. 5, pp. 545-568. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPDLM-02-2018-0058</u>
- Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research. *Qualitative Sociology*, 42(2), 139–160. <u>https://doi.org/10.1007/s11133-019-9413-7</u>
- Bagni, G., Sagawa, J.K. and Godinho Filho, M. (2022), "Sales and operations planning for new products: a parallel process?", International Journal of Physical Distribution & Logistics Management, Vol. 52 No. 1, pp. 29-47. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPDLM-02-2020-0049</u>
- Bhandare, N. (2021, January 7). Integrated Business Planning: Defining the Role of Finance. Garntner Inc.; Gartner Research.
- Chen, W., Liu, C., Xing, F., Peng, G., & Yang, X. (2021). Establishment of a maturity model to assess the development of Industrial AI in Smart Manufacturing. *Journal of Enterprise Information Management*, 35(3), 701–728. <u>https://doi.org/10.1108/jeim-10-2020-0397</u>
- Collyer, M. (2000), "Communication the route to successful change management: lessons from the Guinness Integrated Business Programme", <u>Supply Chain Management</u>, Vol. 5 No. 5, pp. 222-227. <u>https://doi-</u> org.ezproxy.arcada.fi:2443/10.1108/13598540010350556
- Coker, J. and Helo, P. (2016), "Demand-supply balancing in manufacturing operations", Benchmarking: An International Journal, Vol. 23 No. 3, pp. 564-583. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/BIJ-04-2014-0028</u>
- Corley, K. G., & Gioia, D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. Administrative Science Quarterly, 49, 173–208.
- Danese, P., Molinaro, M., & Romano, P. (2018). Managing evolutionary paths in Sales and Operations Planning: key dimensions and sequences of implementation. *International Journal of Production Research*, 56(5), 2036–2053. https://doi.org/10.1080/00207543.2017.1355119

- Dogan, C. A. (2014). Integrated Business Planning: Bridging the Gap between Finance and Supply Chain. *Industry Week*, <u>https://www.proquest.com/trade-journals/integrated-business-planning-bridging-gap-between/docview/1492446148/se-2</u>
- Dreyer, H.C., Kiil, K., Dukovska-Popovska, I. and Kaipia, R. (2018), "Proposals for enhancing tactical planning in grocery retailing with S&OP", International Journal of Physical Distribution & Logistics Management, Vol. 48 No. 2, pp. 114-138. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPDLM-01-2017-0018</u>
- E. Plank, R. and Hooker, R. (2014), "Sales and operations planning: Using the internet and internet-based tools to further supply chain integration", Journal of Research in Interactive Marketing, Vol. 8 No. 1, pp. 18-36. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/JRIM-08-2013-0059</u>
- Freitas, M.R.d., Pimenta, M.L., Hilletofth, P., Jugend, D. and Oprime, P.C. (2020), "Demand management: the role of cross-functional integration in a context of political turbulence", Asia Pacific Journal of Marketing and Logistics, Vol. 32 No. 3, pp. 817-839. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/APJML-11-2018-0473</u>
- Garcia Reyes, H., & Giachetti, R. (2010). Using experts to develop a supply chain maturity model in Mexico. *Supply Chain Management: An International Journal*, *15*(6), 415–424. <u>https://doi.org/10.1108/13598541011080400</u>
- Ganbold, O., Matsui, Y. and Rotaru, K. (2021), "Effect of information technology-enabled supply chain integration on firm's operational performance", Journal of Enterprise Information Management, Vol. 34 No. 3, pp. 948-989. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/JEIM-10-2019-0332</u>
- Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2018). Finding Theory–Method Fit: A Comparison of Three Qualitative Approaches to Theory Building. *Journal of management inquiry*, 27(3), 284-300. <u>https://doi.org/10.1177/1056492617706029</u>
- Gioia, D. (2020). A systematic methodology for doing qualitative research. *The Journal of Applied Behavioral Science*, *57*(1), 20–29. <u>https://doi.org/10.1177/0021886320982715</u>
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research. Organizational Research Methods, 16(1), 15–31. <u>https://doi.org/10.1177/1094428112452151</u>
- Glaser, B. G., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago, IL: Aldine
- Goh, S.H. and Eldridge, S. (2019), "Sales and Operations Planning: the effect of coordination mechanisms on supply chain performance", International Journal of Production Economics, Vol. 214, pp. 80-94 <u>https://doi.org/10.1016/j.ijpe.2019.03.027</u>
- Gomes, L. A., Vasconcellos, L., & Hamza, K. M. (2023). Editorial: A roadmap for data analysis in qualitative research. *RAUSP Management Journal*, *58*(3), 190–196. <u>https://doi.org/10.1108/rausp-07-2023-274</u>

- Goretzki, L. and Messner, M. (2016), "Coordination under uncertainty: A sensemaking perspective on cross-functional planning meetings", Qualitative Research in Accounting & Management, Vol. 13 No. 1, pp. 92-126. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/QRAM-09-2015-0070</u>
- Govindan, K., Cheng, T.C.E., Mishra, N. and Shukla, N. (2018), "Big data analytics and application for logistics and supply chain management", Transportation Research Part E: Logistics and Transportation Review, Vol. 114, pp. 343-349.
- Grimson, J.A. and Pyke, D.F. (2007), "Sales and operations planning: an exploratory study and framework", The International Journal of Logistics Management, Vol. 18 No. 3, pp. 322-346. <u>https://doi/10.1108/09574090710835093</u>
- Gustafsson, E., Jonsson, P., & Holmström, J. (2019). Digital product fitting in retail supply chains: Maturity levels and potential outcomes. *Supply Chain Management: An International Journal, ahead-of-print*(ahead-of-print). <u>https://doi.org/10.1108/scm-07-2018-0247</u>
- Hahn, G. J., & Kuhn, H. (2012). Designing decision support systems for value-based management: A survey and an architecture. *Decision Support Systems*, 53(3). <u>https://doi.org/10.1016/j.dss.2012.02.016</u>
- Hollmann, R.L., Scavarda, L.F. and Thomé, A.M.T. (2015), "Collaborative planning, forecasting and replenishment: a literature review", International Journal of Productivity and Performance Management, Vol. 64 No. 7, pp. 971-993. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPPM-03-2014-0039</u>
- Hulthén, H., Näslund, D., & Norrman, A. (2016). Framework for measuring performance of the sales and Operations Planning Process. *International Journal of Physical Distribution & amp; Logistics Management*, 46(9), 809–835. <u>https://doi.org/10.1108/ijpdlm-05-2016-0139</u>
- Ivert, L.K., Dukovska-Popovska, I., Fredriksson, A., Dreyer, H.C. and Kaipia, R. (2015), "Contingency between S & OP design and planning environment", International Journal of Physical Distribution & Logistics Management, Vol. 45 No. 8, pp. 747-773. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/IJPDLM-04-2014-0088</u>
- Jonsson, P., Kaipia, R. and Barratt, M. (2021), "Guest editorial: The future of S&OP: dynamic complexity, ecosystems and resilience", International Journal of Physical Distribution & Logistics Management, Vol. 51 No. 6, pp. 553-565. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPDLM-07-2021-452</u>
- Johnson, S., & Hawk, M. (2020). *Next level sales coaching: How to build a sales team that stays, sells, and succeeds.* John Wiley & Sons, Incorporated.
- Kjellsdotter Ivert, L. and Jonsson, P. (2010), "The potential benefits of advanced planning and scheduling systems in sales and operations planning", Industrial Management & Data Systems, Vol. 110 No. 5, pp. 659-681. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/02635571011044713</u>

- Kjellsdotter Ivert, L. and Jonsson, P. (2014), "When should advanced planning and scheduling systems be used in sales and operations planning?", International Journal of Operations & Production Management, Vol. 34 No. 10, pp. 1338-1362. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJOPM-03-2011-0088</u>
- Kreuter, T., Kalla, C., Scavarda, L.F., Thomé, A.M.T. and Hellingrath, B. (2021), "Developing and implementing contextualised S&OP designs – an enterprise architecture management approach", International Journal of Physical Distribution & Logistics Management, Vol. 51 No. 6, pp. 634-655. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJPDLM-06-2019-0199</u>
- Kristensen, J., & Jonsson, P. (2018). Context-based sales and operations planning (S&OP) research: A literature review and future agenda. [Context-based S&OP research] *International Journal of Physical Distribution & Logistics Management*, 48(1), 19-46. doi: <u>https://doi.org/10.1108/IJPDLM-11-2017-0352</u>
- Kumar, A., Shrivastav, S. K., & Oberoi, S. S. (2021). Application of Analytics in Supply Chain Management from Industry and Academic Perspective. FIIB Business Review, 0(0). <u>https://doi-org.ezproxy.arcada.fi:2443/10.1177/23197145211028041</u>
- Kumar, R., & Srivastava, S. K. (2014). A Framework for Improving 'Sales and Operations Planning'. Metamorphosis, 13(1), 16-25. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1177/0972622520140104</u>
- Lorentz, H., Töyli, J., Solakivi, T. and Ojala, L. (2013), "Priorities and determinants for supply chain management skills development in manufacturing firms", Supply Chain Management, Vol. 18 No. 4, pp. 358-375. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/SCM-03-2012-0111</u>
- Magnani, G., & Gioia, D. (2023). Using the Gioia Methodology in international business and entrepreneurship research. *International Business Review*, *32*(2), 102097. <u>https://doi.org/10.1016/j.ibusrev.2022.102097</u>
- Márcio Tavares Thomé, A., Felipe Scavarda, L., Suclla Fernandez, N. and José Scavarda, A. (2012), "Sales and operations planning and the firm performance", International Journal of Productivity and Performance Management, Vol. 61 No. 4, pp. 359-381. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/17410401211212643</u>
- Murillo Oviedo, A.B., Pimenta, M.L., Piato, É.L. and Hilletofth, P. (2021), "Development of market-oriented strategies through cross-functional integration in the context of the food and beverage industry", Business Process Management Journal, Vol. 27 No. 3, pp. 901-921. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/BPMJ-03-2020-0106</u>
- Myers, M. D. (2019). *Qualitative Research in Business & Management* (3rd ed.). SAGE Publications.
- Myers, M. D., & Newman, M. (2007). The qualitative interview in is research: Examining the craft. *Information and Organization*, *17*(1), 2–26. <u>https://doi.org/10.1016/j.infoandorg.2006.11.001</u>

- Noroozi, S. and Wikner, J. (2017), "Sales and operations planning in the process industry: a literature review", International Journal of Production Economics, Vol. 188 No. 1, pp. 139-155. <u>https://doi.org/10.1016/j.ijpe.2017.03.006</u>
- Nyman, H. (2023, April 25). 230425_TW_Research Methodology_Lecture 3.pdf. Helsinki; Arcada University of Applied Sciences.
- Nyman, H. (2023, March 7). Lecture material_Integrated Business Planning, Helsinki; Arcada University of Applied Sciences *Link to Strategy* [PDF]. <u>https://arcada.itslearning.com/ContentArea/ContentArea.aspx?Locatio</u> <u>nID=9646&LocationType=1</u>
- Oliva, R., & Watson, N. (2010). Cross-functional alignment in supply chain planning: A case study of sales and operations planning. *Journal of Operations Management*, 29(5), 434-448. <u>https://doi.org/10.1016/j.jom.2010.11.012</u>
- Oliver Wight, EAME LLP. (2020, December 16). Successful S&OP through Integrated Business Planning. Gloucester, United Kingdom; Oliver Wight EAME LLP.
- Osiyevskyy, O., Costa, S. F., & Madill, C. M. (2016). Business Sense or Subjective Satisfaction: Exploring the Outcomes of Business Planning Comprehensiveness in the SME Context. The International Journal of Entrepreneurship and Innovation, 17(1), 15-30. <u>https://doi-org.ezproxy.arcada.fi:2443/10.5367/ijei.2016.0207</u>
- Porter, M.E., and Millar, V.E. (1985), "How information gives you competitive advantage", Harvard Business Review, Vol. 63 No. 4, pp. 149-160
- Porter, M. E. (2008). *The five competitive forces that shape strategy*. Harvard Business Review. <u>https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy</u>
- Prabhu, M. and Srivastava, A.K. (2023), "Leadership and supply chain management: a systematic literature review", Journal of Modelling in Management, Vol. 18 No. 2, pp. 524-548. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/JM2-03-2021-0079</u>
- Puro, R., & Viitanen, T. (2024, January 24). Overview of Delfoi and Delfoi Planner. Helsinki; Delfoi.
- Rantala, T. (2023, March 9). Lecture material, quest lecture. Helsinki; Arcada University of Applied Sciences. *IBP Implementation and Stakeholders* [PDF]. <u>https://arcada.itslearning.com/ContentArea/ContentArea.aspx?Loc ationID=9646&LocationType=1</u>
- Sacristán-Díaz, M., Garrido-Vega, P. and Moyano-Fuentes, J. (2018), "Mediating and nonlinear relationships among supply chain integration dimensions", International Journal of Physical Distribution & Logistics Management, Vol. 48 No. 7, pp. 698-723. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/IJPDLM-06-2017-0213</u>
- Schlegel, A., Birkel, H. S., & Hartmann, E. (2021). Enabling integrated business planning through big data analytics: a case study on sales and operations planning. [Integrated

business planning] International Journal of Physical Distribution & Logistics Management, 51(6), 607-633. https://doi.org/10.1108/IJPDLM-05-2019-0156

- Seeling, M., Kreuter, T., Scavarda, L. F., Thomé, A. M., & Hellingrath, B. (2022). The role of finance in the sales and Operations Planning Process: A multiple case study. *Business Process Management Journal*, 28(1), 23–39. <u>https://doi.org/10.1108/bpmj-07-2021-0447</u>
- Selmi, M. H., Jemai, Z., Gregoire, L., & Dallery, Y. (2021). Integrated business planning process: Link between supply chain planning and financial planning. Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems, 149-158. <u>https://doi.org/10.1007/978-3-030-85906-0_17</u>
- Sinha, A., Millhiser, W.P. and He, Y. (2016), "Matching supply with demand in supply chain management education", The International Journal of Logistics Management, Vol. 27 No. 3, pp. 837-861. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/IJLM-03-2015-0058</u>
- Stentoft, J., Freytag, P.V. and Mikkelsen, O.S. (2021), "The S&OP process and the influence of personality and key behavioral indicators: insights from a longitudinal case study", International Journal of Physical Distribution & Logistics Management, Vol. 51 No. 6, pp. 585-606. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/IJPDLM-02-2020-0056</u>
- Swaim, J.A., Maloni, M., Bower, P. and Mello, J. (2016), "Antecedents to effective sales and operations planning", *Industrial Management & Data Systems*, Vol. 116 No. 6, pp. 1279-1294. <u>https://doi-org.ezproxy.arcada.fi:2443/10.1108/IMDS-11-2015-0461</u>
- Swierczek, A. (2020), "Investigating the role of demand planning as a higher-order construct in mitigating disruptions in the European supply chains", The International Journal of Logistics Management, Vol. 31 No. 3, pp. 665-696.<u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJLM-08-2019-0218</u>
- S. Tsanos, C., G. Zografos, K. and Harrison, A. (2014), "Developing a conceptual model for examining the supply chain relationships between behavioural antecedents of collaboration, integration and performance", The International Journal of Logistics Management, Vol. 25 No. 3, pp. 418-462. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/IJLM-02-2012-0005</u>
- Tajinder Pal, S. T., & Dhir, T. (2011). Benefits of integrated business planning, forecasting, and process management. *Business Strategy Series*, 12(6), 275-288. <u>https://doi.org/10.1108/17515631111185914</u>
- Tchokogué, A., Ngniatedema, T. and Pache, G. (2022), "Learning from sales and operations planning process implementation at ASTRO Inc.", Business Process Management Journal, Vol. 28 No. 2, pp. 481-507. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/BPMJ-10-2020-0459</u>
- Thome, A.M.T., Scavarda, L.F., Fernandez, N.S. and Scavarda, A.J. (2012), "Sales and operations planning: a research synthesis", International Journal of Production Economics, Vol. 138, pp. 1-13. DOI:10.1016/j.ijpe.2011.11.027

- Tuomikangas, N. and Kaipia, R. (2014), "A coordination framework for sales and operations planning (S&OP): synthesis from the literature", International Journal of Production Economics, Vol. 154, pp. 243-262.
- Vereecke, A., Vanderheyden, K., Baecke, P., & Van Steendam, T. (2018). Mind the gap assessing maturity of demand planning, a cornerstone of S&OP. *International Journal* of Operations & Comparison Management, 38(8), 1618–1639. https://doi.org/10.1108/ijopm-11-2016-0698
- Wagner, S.M., Ullrich, K.K. and Transchel, S. (2014), "The game plan for aligning the organization", Business Horizons, Vol. 57 No. 2, pp. 189-201. DOI:10.1016/j.bushor.2013.11.002
- Wagner, S.M., Grosse-Ruyken, P.T. and Erhun, F. (2012), "The link between supply chain fit and financial performance of the firm", Journal of Operations Management, Vol. 30 No. 4, pp. 340-353. DOI:10.1016/j.jom.2012.01.001
- Wallace, T.F. and Stahl, R.A. (2006), Sales and Operations Planning: the Executive's Guide, TF Wallace and Co, Pleasanton, CA.
- Weerabahu, W.M.S.K., Samaranayake, P., Nakandala, D. and Hurriyet, H. (2023), "Digital supply chain research trends: a systematic review and a maturity model for adoption", Benchmarking: An International Journal, Vol. 30 No. 9, pp. 3040-3066. <u>https://doiorg.ezproxy.arcada.fi:2443/10.1108/BIJ-12-2021-0782</u>
- Wicks, D. (2017). The coding manual for qualitative researchers (3rd edition). *Qualitative Research in Organizations and Management: An International Journal*, *12*(2), 169–170. https://doi.org/10.1108/qrom-08-2016-1408
- Wijbenga, H. S., van Fenema, P. C., & Faber, N. (2021). Diagnosing recurrent logistics problems: A combined SCM disciplines and maturity perspective. *Supply Chain Management: An International Journal*, 28(1), 122–139. <u>https://doi.org/10.1108/scm-02-2021-0067</u>

8 Appendices

Interview Questions

What is your company name and what industry are you in?

Do you do any kind of planning to benefit your business? if so, what kind and how you do it?

Do you know what is Integrated Business Planning? Can you describe it for me?

Do you think there is a difference between traditional S&OP and IBP? if yes, what is it?

How have you/your company done IBP? How have staff experienced it?

Do you know what is your company's strategy? Describe it? Does IBP affect your company's strategic decision making?

It is believed that IBP needs three components that are people, process, and technology?

which one you feel as the most important one?

What are your main goals to gain from IBP?

Have you included all company units to plan together, also finance? if not, why not?

How has IBP benefitted your company? Has it changed something?

Do you think your company's staff believe in IBP generally? If not, how would you explain their benefitting from it?

What kind of process you use? Do you often change your process?

What kind of technology the process requires in your case?

What kind of data you bring in and for what you use it?

What measurements do you use to get the result from data?

Which kind of predictions you do? How are they analysed?

Do you feel any improvement? If so, identify what should be done better?

Are there some kind of limitations with IBP for you? if yes, which kind?

How often you have meetings regarding IBP? How often there are outcomes from the meetings, and do they affect to companywide decisions?

Do you feel there is enough communication in your company? Or is there too much? Is the communication dynamic, effective? How transparent it is?

How would I make this interview and the questions more valuable regarding to your business needs or for my thesis? Any ideas, let me know. Feedback.