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Optimization of the project implementation process at AB InBev

CONFIDENTIAL

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"The world is moving so fast these days that the man who says it can't be done is generally interrupted by someone doing it"

Elbert Hubbard

Abstract

To respond to the ever-changing customer demands, companies are engaging more and more people in project-based work for the development of new products and the modification or the delisting of existing products. Such is the case of AB InBev, who developed the RFS process in order to follow correctly the development and implementation of its supply chain projects (e.g. new beers, artwork modifications, promotions). However, this is a complex process, involving different resources (human, budgetary and technical). Therefore, this thesis aims to optimize the project implementation process by looking at the factors needed for a successful project implementation and at the appropriate tools or techniques that can help the project manager to pay attention to the factors with low performance.

Key words : Supply Chain Projects, Project Management tools, Critical Success Factors, Gantt Chart, WBS, PERT/CPM

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List of Abbreviations

BOM	**B**ill **O**f **M**aterials
CPM	**C**ritical **P**ath **M**ethod
CSFs	**C**ritical **S**uccess **F**actors
DP	**D**emand **P**lanner
ERP	**E**nterprise **R**esource **P**lanning
GfP	**G**ood **f**or **P**rint
MACO	**MA**rgin **CO**ntribution
MD	**M**aster **D**ata
MRP	**M**aterial **R**equirement **P**lanning
OTIF	**O**n **T**ime **I**n **F**ull
PCC	**P**ack **C**hange **C**ommitee
PERT	**P**rogram **E**valuation **R**eview **T**echnique
PIP	**P**roject **I**mplementation **P**rofile
PM	**P**roject **M**anagement
PMBOK	**P**roject **M**anagement **B**ody of **K**nowledge
PMI	**P**roject **M**anagement **I**nstitute
KPI	**K**ey **P**erformance **I**ndicator
RFS	**R**equest for **F**easibility **S**tudy
ROI	**R**eturn **O**n **I**nvestment
S&OP	**S**ales **&** **O**perations
SC	**S**upply **C**hain
SCM	**S**upply **C**hain **M**anagement
SuEP	**S**upply **E**xcellent **P**rogram
SKU	**S**tock**K**eeping **U**nit
SNP	**S**upply **N**etwork **P**lanning
TP	**T**ransfer **P**rice
WBS	**W**ork **B**reakdown **S**tructure
ZBS	**Z**one **B**rewery **S**upport
ZLS	**Z**one **L**ogistique **S**upport
ZTD	**Z**one **T**echnical **D**evelopment

Dedicated to my family

1 Introduction

1.1 Context

Supply chains today are characterized by their fragmented nature. Indeed, companies expand into new markets, merge, outsource and relocate much more often than before (Angeleanu, Keppler, & Eidenmüller, 2016). Such is the case of AB InBev, the largest beer company in the world, with a portfolio of over 500 beer brands after the acquisition of SAB Miller (AB InBev, 2016a). The complexity of its portfolio requires, among other things, to manage different resources from all parts of the world and meet the expectations and demands of all its stakeholders. For this to happen, AB InBev sees project management as a key strategic mean. This view is increasingly recognized in the past 30 years (Venkataraman & Pinto, 2008). Indeed, organizations are recruiting more and more in project-based work "*for the development of new knowledge, new products, and for the implementation of change and client solutions*" (Soderlund, 2008, p. 355), providing them with a substantial competitive advantage. In the case of AB InBev, the development and launching of new size for pack beers, new brand designs, new promotions, new beer recipes, etc. are managed by the "RFS process", which stands for *Request for Feasibility Study*.

As a consequence, every change impacting the portfolio of AB InBev will go through this process. In the last two years, the portfolio management department received 778 projects in 2015 and 832 in 2016. Only 638 were approved on 2015, 67 of which were actually not fully completed or implemented. In 2016, 644 were supposed to be implemented, but 75 were not fully completed (AB InBev, 2017a). This could have

been caused by various reasons, such as an inaccurate estimation of costs and time schedule, conflict of interest among key stakeholders, communication and collaboration obstacles, wrong priority management, etc. This list could be endless, but these examples are enough to illustrate the difficulties of successfully completing a project while respecting the different constraints of a project such as time, cost and depending on the situation, either scope, performance or quality (Horine, 2009). Indeed, such projects are complex by nature, whichever way you may look at it, it is not possible for a manager to protect the integrity of all these constraints, this is known as "The Iron Triangle" (Appendix G), a phenomenon which shows the trade-offs inherent in any project (Horine, 2009). It is thus important to understand the complexity in projects and to determine what can lessen this complexity.

In this thesis, project complexity is understood as *"consisting of many varied interrelated parts"* (Baccarini, 1996, p. 201) in order to interpret or distinguish project complexity in terms of *differentiation* (i.e. the number of varied elements such as the number of tasks to be performed and the number of specialists or key stakeholders involved); and *interdependence* or connectivity between these elements (Baccarini, 1996). It can therefore be said that project complexity can be managed *''by integration, that is, by coordination, communication and control"* (Baccarini, 1996, p. 203). Such is the role of "Gatekeeper" at AB InBev, they manage the feasibility analysis of projects and supervise its implementation while leading the communication with involved stakeholders and giving them guidance and support. However, despite the presence of gatekeepers to ease the management of projects, most of them are still found to be completed behind schedule. Indeed, only 105 out of 638 projects were implemented according to schedule on 2015 and only 163 out of 644 projects on 2016 (AB InBev, 2017a).

Although some might think this is a consequence of bad project management, several well-known authors (Gomes and Romão, 2016, Slevin and Pinto, 1986, De Wit, 1988, Jugdev, Perkins, Fortune, White, and Walker, 2013) have claimed that a successful project management does not necessarily lead to successful projects. While it is true

that having a good project management may contribute to the success of the project, it is unlikely that this will be able to prevent failure (De Wit, 1988). It is thus worth highlighting the difference between successful project and a successful project management. The former is concerned *"with judgments about the outcomes of a project"* while the latter *"is about the successful delivery of a project"* (Jugdev et al., 2013, p. 535).

1.2 Purpose of the research

In this thesis, we are concerned with helping the portfolio management department at AB InBev with the implementation of its different supply chain projects, thus placing emphasis on the success of project delivery; not on the success of project in general. In order to achieve this objective, we will study critical success factors for project management, along with project management tools and techniques that will be proposed as an attempt to increase the success of project delivery.

1.3 Structure of the thesis

The first chapter, "Introduction", describes the context in which this thesis bases itself, namely the complexity of projects within the supply chain environment. Furthermore, it defines the purpose and motivation of this thesis.

The second chapter, "Introduction of AB InBev", describes the company where we performed a fourth-month internship. It begins with an overall introduction of the company and continue in more details about the structure of the SC portfolio management department. Lastly, it will present an in-depth insight into the projects handled by this department and the process that makes possible the implementation of these projects.

Chapter three, “Methodology”, provides the research approach used during this thesis. It includes a diagram linking the overall structure of this thesis with the methods used to gather the data. Furthermore, it goes into more detail to justify the chosen research method for each step of the diagram.

Chapter fourth, “The core of the study”, describes our research problem, providing further details of each method used to to clarify it (focus group interview, SWOT and quantitative analysis). Lastly, it present the research questions to be addressed.

Chapter five, “Literature Review”, presents the factors identified by renowned authors as being critical for a successful project implementation. It also describes four of the most effective and widely used tools and techniques in the field of project management.

Chapter six, “Empirical Analysis and Proposal”, describes the tool “Project Implementation Profile” (PIP), developed by Jeffrey Pinto and Dennis Slevin, and how it was used to analyse the survey results and get the critical success factors for the implementation of AB InBev’s SC projects. At the same time, it presents the analysis of the in-depth interviews conducted to support the outcome of the surveys. Once the critical factors with lowest performance were identified, the most appropriate PM tool that addresses those factors and that ensures timely completion of projects will be presented in detail. We end this chapter with our proposal, a practical tool developed to help the portfolio management department in the implementation of projects.

The final chapter, "Conclusion", answers the two research questions of this thesis and discusses about the main contributions that this study has made for AB InBev.

2 Introduction of AB InBev

2.1 Description of the company

Anheuser-Busch InBev (Ab InBev) is the leader and largest brewer in the world, with a diverse portfolio of over 500 beer brands after its merger, in October 2016, with the previous second-largest brewer in the world, SAB Miller. Indeed, the company has drastically evolved since 1987, when Belgium's largest brewers, Brasseries Artois and Brasseries Piedboeuf, merged (Canadean, 2016) (Appendix K gives a brief overview of AB InBev's history). While it is true that they are *"specialized in the production, marketing and distribution of beers"* (Canadean, 2016, p. 22), it must not be forgotten that they are also present in the non-alcoholic beverage industry. This way, they divide their brands into three groups: global brands, international brands and local brands. Appendix L shows the classification of the key products and brands of the company. Furthermore, the company counts with 22 breweries across Europe (Appendix I) and sells beers in more than 150 countries (AB InBev, 2016a).

Headquartered in Leuven-Belgium, the company employs around 200 000 people, working in more than 50 different countries. Indeed, the geographical diversification of AB InBev's operations is one of its biggest strength (Business Monitor International, 2017). Nevertheless, as any other company, AB InBev also faces some weaknesses and threats, such as *"taxation issues in European beer market, expansion by competitors, and volatile raw material prices"* (Canadean, 2013). Therefore, it is worth bearing in mind the latest SWOT analysis developed in the United States Food and Drink Report, to better understand the current situation of the company (Appendix M).

2.2 Supply Chain Planning at AB InBev

In order to understand the research problem of this thesis, it is necessary to take a step back and look at the overview of AB InBev's Supply Chain. We were able to describe the role of each department thanks to quick interviews ("trainings") organized with key members.

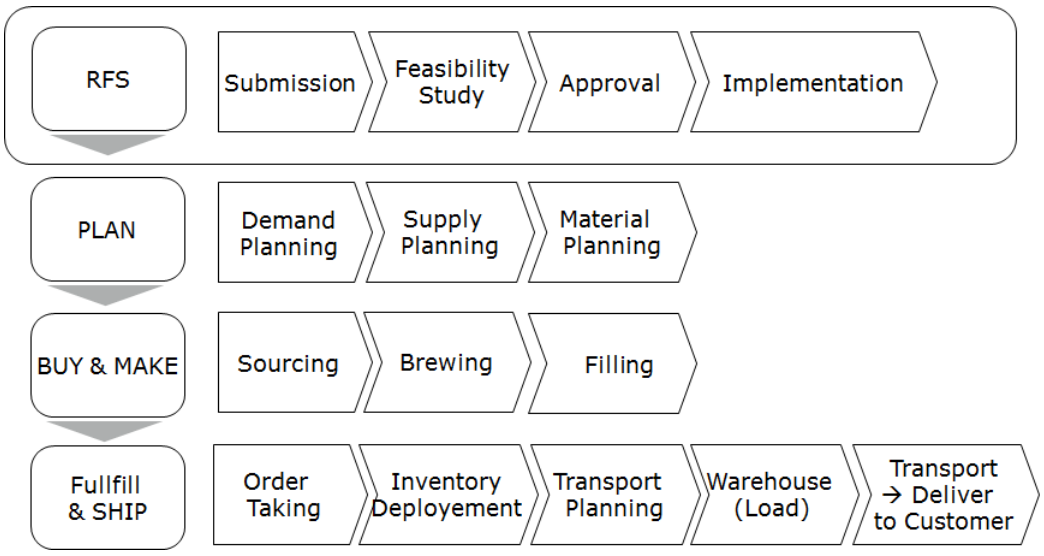


FIGURE 2.1: Supply Chain Overview (AB InBev, 2017b)

In the above figure, we can see the four big stages of AB InBev's Supply Chain (see Appendix O for the full overview of the different processes). The stage zero refers to the RFS process, which is managed by the portfolio management department. This stage will be discussed in greater details in the following section.

Stage one refers to the planning functions such as Demand Planning, Supply Network Planning and Material Resources Planning.

Demand Planning: Creates the demand plan with historical data, statistical forecast and enriched it with collaborative sales and marketing data. Its objective is to ensure that the best possible estimate of true customer demand is released on a weekly basis to drive supply, sales and financial planning processes.

Supply Network Planning: Balances demand, supply and inventory across the network while guaranteeing a cost optimal filling plan, availability of materials and the required capacities and capabilities to achieve service level agreements.
Materials Resources Planning: Plans materials availability for production while maintaining the lowest possible level of inventory and a good relationship with suppliers.

The second stage refers to "Buy & Make" operations, such as Sourcing, Brewing and Filling. Concerning sourcing, it is managed by the procurement department.

Procurement: Orders materials and services. They oversee the selection and management of suppliers, supplier Back-ups and appropriate inventory levels.

Finally, the last stage refers to the logistics functions, which we will not go into greater detail.

Logistics: Ensures that logistics resources such as transport capacity and warehouse space are available.

2.3 Portfolio Management department

In the literature, portfolio management is described as *"a dynamic decision process where a list of active projects is constantly updated and revised"* (Müller, Martinsuo, and Blomquist, 2008, p. 28). Such is the case of the portfolio management department at AB InBev who has, among other responsibilities, to study the feasibility of supply chain projects and ensure the implementation of those projects that were approved by upper management.

Furthermore, the portfolio management department is also responsible for *"setting up and coordinating the initiatives or efforts towards the decomplexity of its portfolio"* (AB InBev, 2017b). In this sense, the aim is to optimize the variety and profitability of SKUs, in order to satisfy the consumer needs, while optimizing the business capabilities and managing costs.

2.3.1 Organization chart

The figure below shows the organization chart of this department, as we can see, the team is formed by a "Portfolio Expert", "Master Data & BOM specialists" and "Gatekeepers".

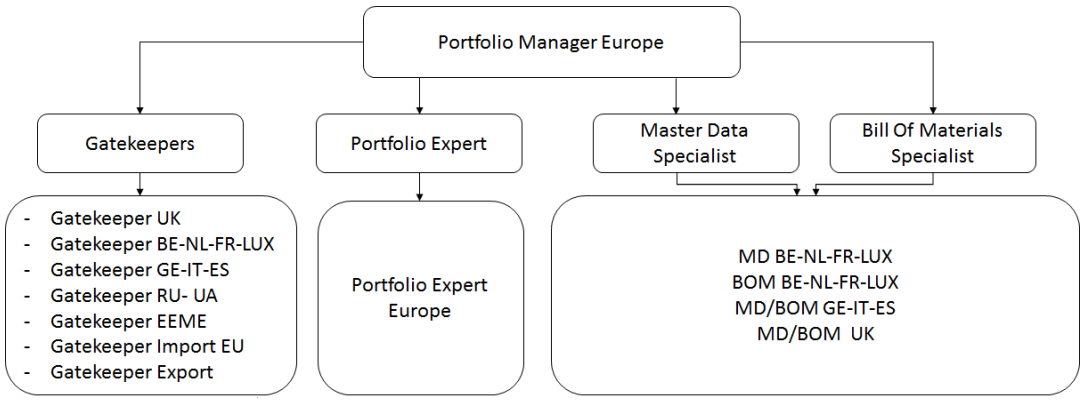


FIGURE 2.2: Organization Chart (AB InBev, 2017b)

Gatekeepers

> *"Gatekeepers are the spider in the middle of the net, in all the other streams we find the stakeholders. Information and requests comes to the gatekeeper and he/she manage it and spreads it to everyone who may need it."*
>
> — Nicole Vetter, Gatekeeper GE (Phone Interview, May 29, 2017)

They are the coordinators of the RFS process and are divided by zone (UK, BE-NL-FR-LUX, GE-IT-ES, RU-UA, EEME, Import EU, Export). These coordinators ensure the selection and implementation of the most valuable projects impacting AB InBev's portfolio. For instance, any modifications having an effect on the BOM, or the launching of new SKU's/promotions, etc. (these types of projects will be discussed in more details in section five). For this purpose, they manage the feasibility analysis and the implementation of projects while leading the communication and giving guidance and support to all stakeholders.

This can become a very complex work, as they need to deal with almost every department in the company. Indeed, gatekeepers need to look at all the aspects of a given

project: supply, legal, logistics, technical, marketing, etc. in order to effectively manage and follow the implementation of projects. To this end, they require the engagement and involvement of different stakeholders. However, this is not always easy to get. In the absence of this engagement, project schedule, among other KPI's, can be affected. Indeed, as suggested by Peter Morris and Jeffrey Pinto, without the full involvement, joint coordination and communication of all the stakeholders involved in the project, value enhancement and a good project performance cannot occur or at least, will be less than optimal (Morris & Pinto, 2007).

Portfolio expert

Is the person who supports the gatekeepers and Master Data specialists, with respect to technical and process software. For instance, any kind of issue project initiators have with the RFS tool when submitting their projects or any issue concerning the creation of SKU codes.

Master Data & BOM specialists

In the same way as gatekeepers, MD and BOM specialist are divided by zone. They are responsible for the accuracy of the set-up and maintenance of AB InBev's supply databases which contains, among other things, lists of finished goods and components (i.e. raw materials, semi-finished products, empties).

2.4 Request for Feasibility Study

After having identified and described the roles of the key stakeholders involved in the process of AB InBev's supply chain, we can now describe in more detail the RFS process. However, before jumping into this process, we must first understand the importance of the portfolio management department within the organization. To this end, we will show the crucial relations within the product life cycle.

Portfolio Management & Product Life cycle

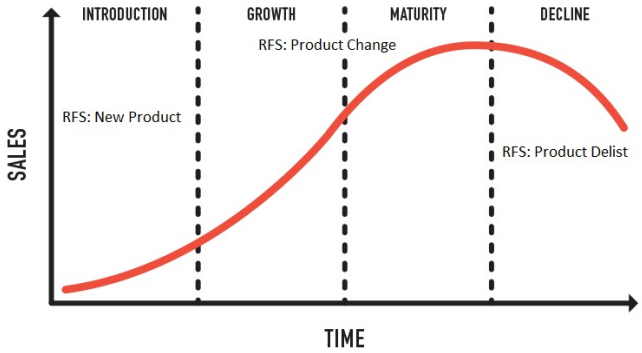


FIGURE 2.3: Product Life cycle (Adapted from Smith, 2015)

In order to remain competitive in the market, AB InBev's supply chain strategy is continuously adapting so as to match customer requirements and product specifications. Having this in mind, the figure above shows the standard product life cycle with its four crucial phases: Introduction, Growth, Maturity and Decline. As products move through their life cycles, customer's demand change. Therefore, in the attempt to boost sales during the Introduction phase, projects requesting the creation of new products (e.g. products with new design, new pack sizes, new liquids, etc.) are submitted to the portfolio management department. Afterwards, during the growth and maturity phases, the strategy changes in order to increase the length of these phases and prolong the life of the product. For this purpose, projects requesting modifications or changes on products are submitted, these are projects mainly requesting changes on the Bill Of Materials. Lastly come the decline and end life of products that request projects demanding the delisting or deactivation of some SKU's from AB InBev's portfolio.

As we could see, AB InBev's supply chain strategies change throughout the product's life cycle so as to classify its products and develop the correct supply chain strategies (Aitken, Childerhouse, & Towill, 2003).

2.4.1 RFS process

To manage the above-mentioned supply chain strategies, the portfolio management department has developed the RFS (Request for Feasibility Study) process, which needs to be followed for every creation, adaptation, change or delisting of any AB InBev product. Via this process, the portfolio is managed on a SKU level, adding new, changing existing or phasing out old SKU's. The process consists of four stages, showed in the figure below: RFS submission, Feasibility Analysis, Approval and Implementation stage.

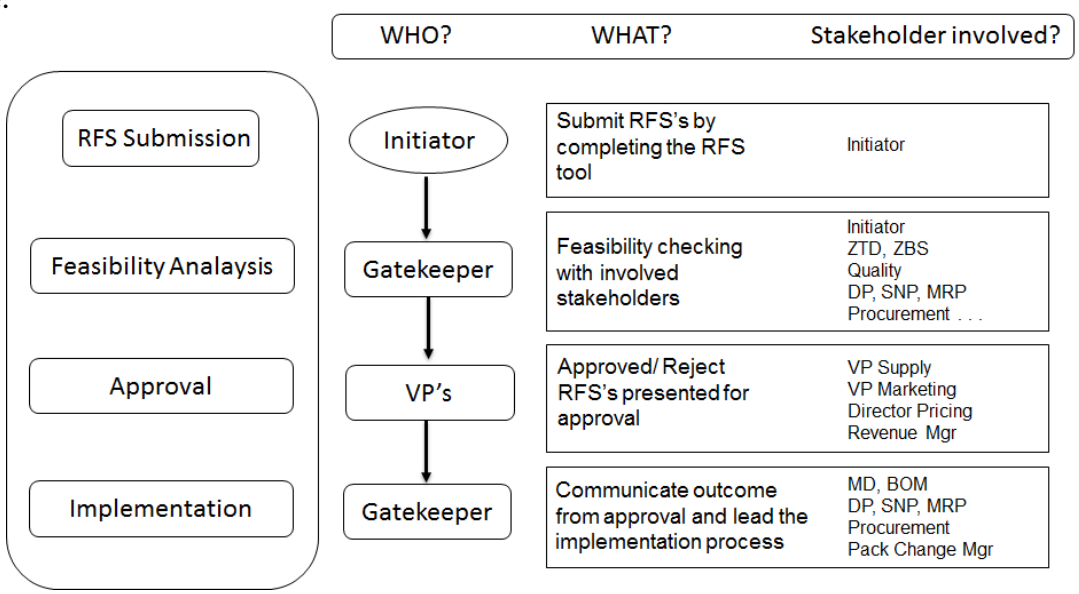


FIGURE 2.4: RFS process (AB InBev, 2017b)

Stage 1 : RFS submission

The first stage of this process is managed by the project initiator, he/she can come from any department in the company, from marketing requesting new label designs, to logistics requesting new palletization schemes. They start the process by submitting a request on the internal RFS tool (Appendix H).

While it is true that the gatekeepers are there to facilitate and steer the process in the right direction, the project initiator is the *owner* of the request, and ultimately, he/she is responsible for the correct execution of the project.

Stage 2 : Feasibility Analysis

The feasibility analysis is done by the corresponding gatekeeper. If a project is impacting a specific production line or brewery, it is the gatekeeper of this zone that will handle the feasibility of this project. After checking that all mandatory information is correctly filled on the RFS tool, that volumes requested are respecting the hurdles, that the new SKU's are generating at least the average profitability of the brand in the market and are not cannibalizing other SKU's , then the gatekeeper will involve all relevant stakeholders (e.g. asking ZTD if there is any transport test needed or checking with SNP if there is enough capacity on the line, etc.) and then finalize the analysis to present the projects that are suitable for implementation to the VP's approval meeting.

Stage 3 : Approval

All projects that have passed the feasibility analysis are presented to the VP's biweekly approval meeting, where VP Supply, VP Marketing, Price Director and Revenue Manager give the last approval or rejection.

Stage 4 : Implementation

Once a project is approved by the VP's, the corresponding gatekeeper approves the project on the RFS tool so that initiator and all relevant stakeholders are aware of it, from this point the project implementation process starts.

2.4.2 RFS implementation process

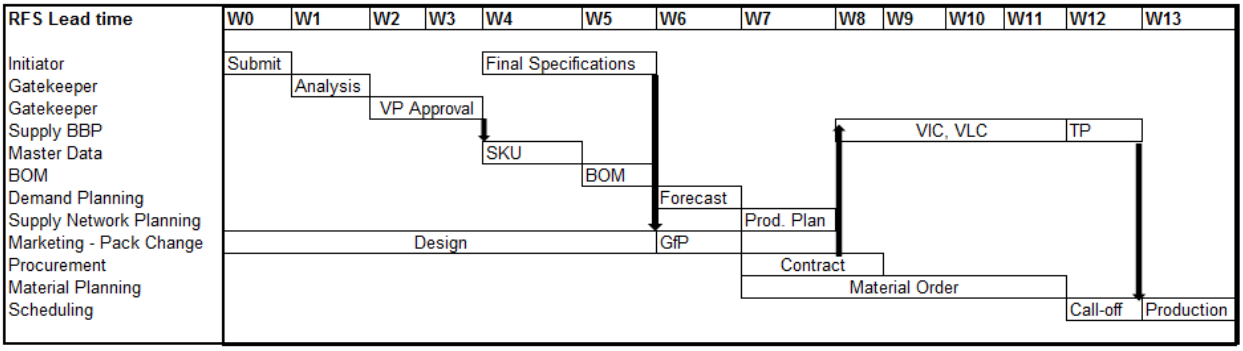
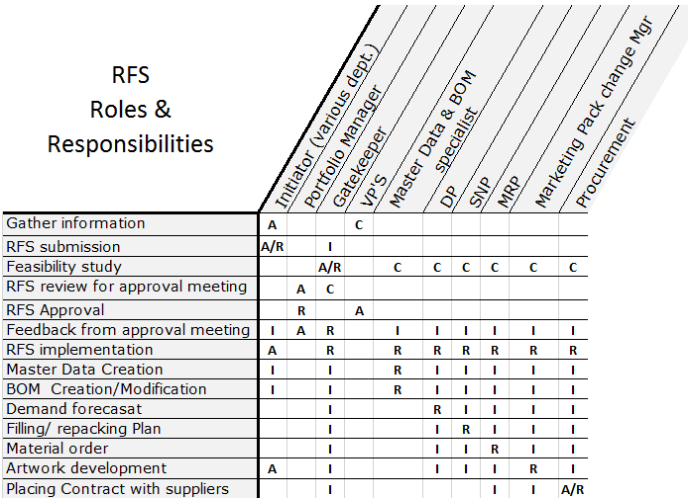


FIGURE 2.5: RFS Implementation process (AB InBev, 2017b)

The standard implementation process demands a total lead time of thirteen weeks, this by taking into account one week for the feasibility analysis and two weeks for the approval meeting. However, this lead time may vary depending on the type of project handled. For instance, a project that request the same promotion of last year, on an existing SKU and without any artwork change, will not require the MD code creation nor the pack change step.

To explain the standard process in detail, we will take the example of a project requesting the creation of new SKU's. This type of project represents the largest part of projects within the portfolio department. For this purpose, we will use the RACI model (Responsible, Accountable, Consulted, Informed), describing the roles and responsibilities of all the participant at each step in the implementation process.



RFS Roles & Responsibilities	Initiator (various dept.)	Portfolio Manager	Gatekeeper	VP's	Master Data & BOM specialist	DP	SNP	MRP	Marketing Pack change Mgr	Procurement
Gather information	A			C						
RFS submission	A/R		I							
Feasibility study			A/R		C	C	C	C	C	C
RFS review for approval meeting		A	C							
RFS Approval		R		A						
Feedback from approval meeting	I	A	R		I	I	I	I	I	I
RFS implementation	A		R		R	R	R	R	R	R
Master Data Creation	I		I		R	I	I	I	I	I
BOM Creation/Modification	I		I		R	I	I	I	I	I
Demand forecasat			I			R	I	I	I	I
Filling/ repacking Plan			I			I	R	I	I	I
Material order			I			I	I	R	I	I
Artwork development	A		I			I	I	I	R	I
Placing Contract with suppliers			I					I	I	A/R

FIGURE 2.6: RACI Matrix (AB InBev, 2016b)

Responsible: It is the person who will answer for the completion and success of the concerning tasks, even though he/she might not be the actual person who executes the work. (Costello, 2012)

Accountable: It is the person who has the final responsibility and decision power for performing the task. (Costello, 2012)

Consulted: It is the person who will contribute with expertise or knowledge, because the Responsible is not an expert, consultation with other stakeholders might be needed before taking the final decision. (Costello, 2012)

Informed: It is the person(s) who needs to be informed after the final decision linked to the task. (Costello, 2012)

Once we have this RACI roles in mind, we can align them with the tasks required at each step in the implementation process, as shown in Figure 2.6 and explained in detail below, after the approval of a project.

1) **Master Data** and **BOM** specialists set up the SKU and creates the BOM on the ERP system, he/she informs when his task is completed via email.

2) Once the codes are correctly set up, **Demand Planning** can start placing the forecast for that new SKU.

3) Furthermore, while MD and BOM specialists are setting up the SKU, **Marketing and Pack Change** team are working on the final specification of the artwork for the new SKU, and obtained a Good for Print (GfP), meaning that the artwork has been approved and validated to be printed by the respective supplier.

4) Having the forecast in place, the **Supply Network Planning** department can start the production plan, looking for the right production location, taking into account the capacities or capabilities of the plant and the route to market, among other criteria.

5) In the same way, the **Procurement** department is able to have the contracts with suppliers in place after knowing the exact artwork to be used (i.e. after having the GfP). Indeed, suppliers for cans, bottles, cartons, labels, printed shrinks films, etc. can only give their prices after knowing the final artwork.

6) The **Materials Resources Planning** department will then order the materials involved in the creation of the new SKU.

7) Finally, **Schedulers** will call off the materials, making sure the right quantity is deliver at the right time to produce the concern SKU.

2.5 Project Definition

Now that we have an in-depth overview of the RFS process, we have yet to explain in detail the type of projects impacting AB InBev's portfolio. But first, it is worth taking some time to adequately define what a project is. Although it is true that almost everyone has, at some time in their life, dealt with a project in one way or another, the ambiguity of individual interpretations of this concept can generate big misunderstandings.

Therefore, for the purpose of this study, we selected the definition of Harold Kerzner, one of the most recognized authors in the field of project management. He defines a project as *"any series of activities and tasks that have a specific objective to be completed within certain specifications, with defined start and end dates, funding limits (if applicable), which consume human and nonhuman resources (i.e. money, people, equipment) and which are multifunctional (i.e. cut across several functional lines)"* (Kerzner, 2009, p. 2).

In addition, it is important to stress the difference between projects and operations. Indeed, while operations are described as ongoing activities that produce repetitive outputs, projects on the other hand, are characterized by their temporary nature (Horine, 2009).

Furthermore, as this study only concerns supply chain projects, we can go more in depth and see what literature has to say about this kind of projects. The book *Supply Chain Project Management* defines it as the result of drivers that trigger *change* in the Supply Chain Management (Ayers, 2004). A brief summary can be found in the following table.

TABLE 2.1: Drivers fuelling SCM projects (Ayers, 2004)

SCM Drivers	Definition
Innovation	Advances in both product and process. Includes material technology, production equipment, software and artistic input.
Extended products	The necessity for features and related services beyond the physical product. Also, the commercialization of basic products.
Globalization	Having to source and sell worldwide. Includes cross-border trade for raw material, manufacturing support and distribution.
Flexibility	The premium on fast responses to environmental changes and short product life cycles. Includes product mix, volume and features.
Collaboration	The need to break down boundaries. Using intra-company and inter-company cooperative efforts to meet mutual goals.

With this in mind, we can go into more details with regard to the situations of AB InBev. The portfolio management department has identified eleven “types of projects” or as they called them "types of RFS’s", we have classified these projects according to the SCM projects stated in the literature.

TABLE 2.2: Projects that Request a Feasibility Study

SCM Drivers	RFS Types
Innovation	Innovation, Value Engineering
Extended Products	New SKU, Artwork/Article modification
Globalization	Open SKU to Market
Flexibility	Promotions, Delisting, Reactivation
Collaboration	Production Site, New Supplier

1. **Innovation** : Launch of a new product (i.e. new liquid, new packaging). Example: Jupiler mini crate 10x25CL.

2. **Value Engineering**: Cost saving project with material/machine specification changes.
   Example: Remove metalised paper from non focus Brands.
3. **New SKU** : Any physical or financial difference should be tracked with new SKU (i.e. new liquid,pack type, parallelization, EAN) or to reflect VIC increase.
   Example: Stella Artois 18x440ml switch to 15x440ml.
4. **Artwork Modification** : Change of artwork on existing packaging (i.e. wording, legal, design change).
   Example: Include Indian legal mandatories onto SKUs produced in Leuven.
5. **Article Modification** : Changes of an existing SKU, material (i.e. new die-cut, modification in the parameters: MTO/MTS/MOQ/Lead time).
   Example: Stella Artois Wimbledon design 2017.
6. **Open SKU to Market** : Open an existing SKU to a new market.
   Example: Import Leffe 24 0,33L In Paraguay.
7. **Promotion** : New code creation for a promo (i.e. free volume, gadgets, discount) via temporary design.
   Example: Promo Jupiler cans 50cl 5+1, 11+1, 22+2.
8. **Delisting** : Deactivation of a code, meaning permanent removal of forecast and depletion of pack mat.
   Example: Delisting 3x10 440ml Products.
9. **Reactivation** : Reactivation of a KILL SKU.
   Example: Leffe Xmas Reactivation 2016.
10. **Production Site** : Changes in production site or open additional warehouse for distribution.
    Example: Contingency production Leffe blond and brown 0.3L in Leuven.
11. **New Supplier** : Change material supplier to a new supplier.
    Example: New shrink supplier for Production plant in Magor.

3 Methodology

3.1 Overall research design

In this section, we will provide the reader with a diagram (Figure 3.1) of the overall research. This will help the reader to understand how the research was carried out and the reasoning behind the choice of the methods used to gather the data.

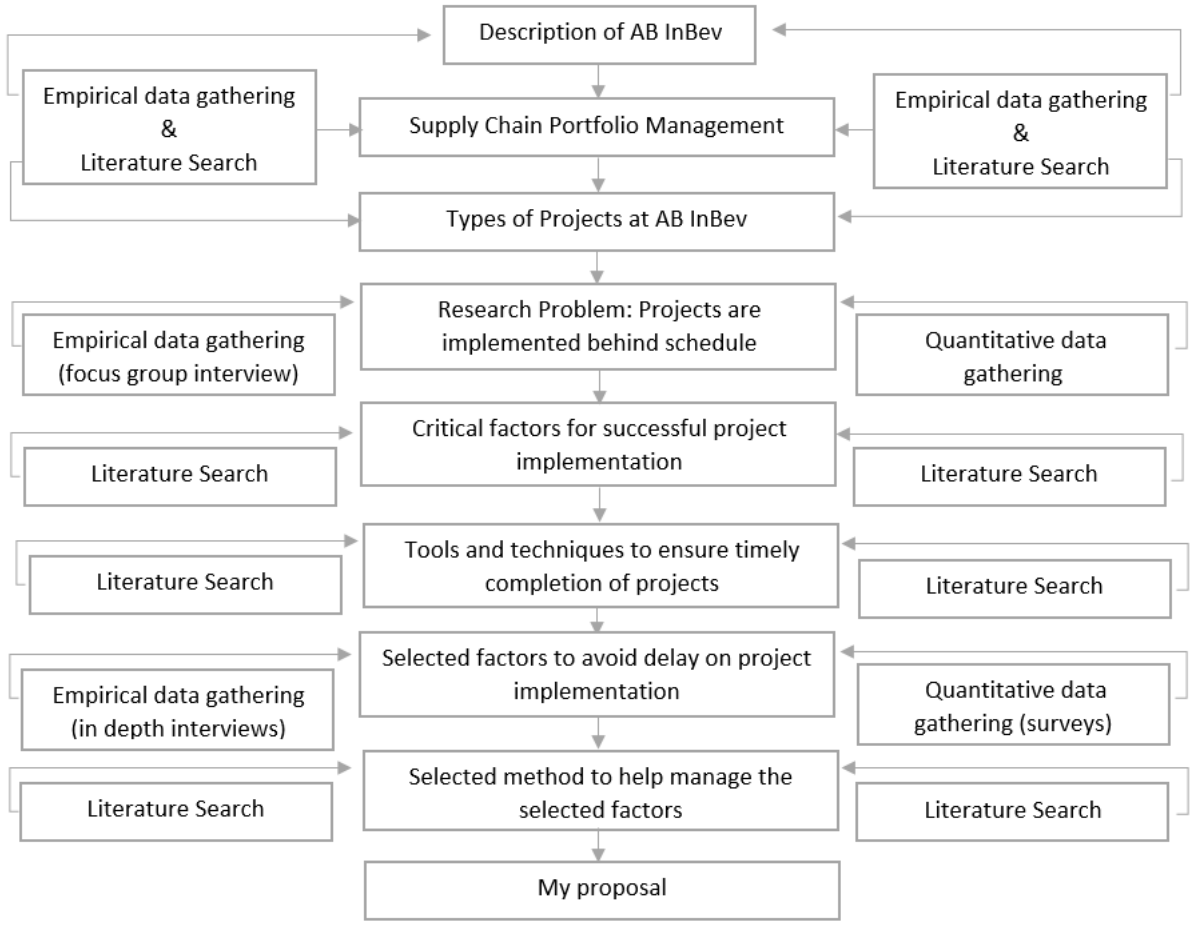


FIGURE 3.1: Research design

This thesis was constructed according to the characteristics of a project-based thesis ("mémoire-projet"), which differs from a traditional thesis inasmuch as it contributes to the solution of a real problem in an organization.

For this purpose, an internship was performed at the company AB InBev. In order to find and understand the research problem, an introduction of the company was necessary. Which is why from the very beginning of the internship, short interviews were conducted with all the close departments that the portfolio management department interacts (i.e. Demand Planning, Supply Network Planning, Materials Resources Planning, Procurement, Pack Change team and MD/BOM specialists). The goal of these interviews was to have a quick overview of what each department does and to understand more the company itself. Therefore, the type of interview used was "informal conversational interview". This kind of interview is characterized by the absence of predetermine questions, where *"questions emerge from the immediate context and are asked in the natural course of things"* (Cohen, Manion, and Morrison, 2000, p. 271).

We used this primary data to describe the company, its supply chain organization and the types of projects, or as they called them "RFS's" (projects that Request a Feasibility Study), that the portfolio management department deals with. Additionally, a secondary data was also used for the same purpose, it was obtained from secondary sources given by AB InBev (i.e. printed slides and handbooks) and by searches done on the web.

3.2 Research problem

After getting a better understanding of the company, of its supply chain organization and of the types of projects that they deal with, a focus group interview was conducted as an attempt to find the research problem of this thesis. The purpose of the focus group interview *"is to bring people together, in order to listen, and capture their attitudes, experiences or perspectives on a focused topic, or specific set of objectives"* (Hallas, 2014, p.

519). This form of interviewing allowed the participants to interact with each other and made it easier to gather the data. As stated by Cohen et al. *"it is from the interaction of the group that the data emerge"* (Cohen et al., 2000, p. 288).

This interview allows us to take the first step towards finding the research problem of this thesis. It was conducted by taking advantage of the weekly team meeting. In effect, the manager of the portfolio management department leads a weekly meeting with all the members of his team, namely the "Master Data and BOM Manager" and the "Gatekeepers" of each zone, forming a team of more than ten people in total. Furthermore, this interview was guided using the "Critical Matrix" (Appendix A) of AB InBev's SuEP program. Indeed, the latter program is part of the eight *Excellent Programs* (Appendix N) that AB InBev has developed in order to support their employees to reach excellence. They provide a series of guides, tools and processes to different divisions in the company. Thus, to help produce, sell and market beer, we found the Supply Excellence Program (SuEP).

Accordingly, with the help of the "Critical Matrix", we went through each of its concerning dimensions and started the discussion on the level of impact that should be given. At the end of this meeting and after looking at the scores given on the Critical Matrix, it was noted that one of the main areas for improvement could be the RFS implementation process. However, the root cause of this was still not clear. This leads us into the "observation data collection method" in which we gather information based on our personal observations and experiences during the four-month internship in the company. This method enabled us to make a relation and sense of the data collected during the focus group interview. Indeed, as stated by Cohen et al., this method enables researches *''to gather 'live' data from 'live' situations [...], to be opened and inductive, to see things that might otherwise be unconsciously missed, to discover things that participants might not freely talk about in interview situations, to move beyond perception-based data, and to access personal knowledge"* (Cohen et al., 2000, p. 305).

Therefore, by supporting the role of "Gatekeeper UK", in which we were responsible

for the coordination of the feasibility and implementation of projects within the UK zone, we encountered some opportunities for improvement as well as some weakness on the RFS implementation process. Consequently, we developed a SWOT matrix, in order to analyze all these *live* data. This matrix helped us identify not only the reasons why the critical process was stated to be the implementation of projects, but also the consequences and research problem of this study, namely the implementation of projects being behind schedule. Additionally, a secondary quantitative data gather from the internal reports of the portfolio department was used to support this finding.

3.3 Key factors for a successful project implementation

> *"'Projects often possess a specialized set of critical success factors, or those factors which, if addressed, can significantly improve the likelihood of successful implementation."*
>
> — Pinto, 1986, p. 1

Keeping in mind the research problem of this study, we conducted a literature review on key factors for successful project implementation. The reason behind this search comes from some of the most renowned researchers in the field of project management (Slevin & Pinto, 1986; Kerzner, 2009; Pinto & Prescott, 1990), who stated that *"project implementation process can be greatly facilitated by addressing a variety of project critical success factors"* (Pinto and Prescott, 1990, p. 305). Indeed, *"the study of critical success factors is often considered as one of the vital ways to improve the effectiveness of project delivery"* (Alias, Zawawi, and Yusof, 2014, p. 61).

Various authors in the field of project management have regrouped lists of critical success factors for project implementation. Among them we can find Sayles and Chandler (1971), Martin (1976) Locke (1984), Cleland and King (1983). The success factors proposed by these authors are often known to be theoretically based and not empirically proven (Pinto & Slevin, 2008). Consequently, as seen by Pinto and Slevin, all these

set of critical factors can have some patterns or similarities. We highlighted this in Appendix B.

Jeffrey Pinto and Dennis Slevin filled this lack of empirical evidence by performing a study with part-time evening MBA students having a full-time job and having participated on a project within the last two years. As a result of this study, ten factors considered crucial to project implementation were regrouped, along with a tool: The "Project Implementation Profile" (PIP) (Pinto & Slevin, 1987). These critical factors will be explained in detail with the help of the following papers: "The Project Implementation Profile: New Tool For Project Managers" (Slevin & Pinto, 1986), "Critical factors in successful project implementation" (Pinto & Slevin, 1987), "Critical Success Factors in Effective Project implementation" (Pinto & Slevin, 2008),"Strategy and Tactics in a Process Model of Project Implementation" (Schultz, Slevin, & Pinto, 1987),"Critical Success Factors Across the Project Life Cycle" (Pinto & Slevin, 1988), "Planning and tactical factors in the project implementation process" (Pinto & Prescott, 1990), "Project Implementation Profile: a tool to aid project tracking and control" (Pinto, 1990), and "Project management concepts, methods, and techniques" (Maley, 2012).

Furthermore, in order to select the factors who might need the most attention for the successful implementation of projects at AB InBev, we opted for a mixed-method research, also known as "Methodological Triangulation", in which more than one method is used to gather data. Indeed, qualitative and quantitative methods were combined. This method *"has been found to be beneficial in providing confirmation of findings, more comprehensive data, increased validity and enhanced understanding of studied phenomena"* (Bekhet and Zauszniewski, 2012, p. 40).

Bearing this in mind, in a first step a survey was carried out using the PIP tool, developed by Jeffrey Pinto and Dennis Slevin. This tool provides assistance to project managers to monitor and assess those factors considered critical to project implementation (Pinto & Prescott, 1990). Moreover, it provides a full questionnaire with key questions for each of the ten factors, each question is measured on a Likert scale of 1-7,

with 1 being "strongly disagree" and 7 being "strongly agree". This questionnaire (Appendix C) was suitably adapted to fit the situation of AB InBev. The purpose of these surveys was to identify the most critical factor to project implementation, perceived as being the cause of the delay on project delivery.

Then, after analyzing the results of the survey and relying on the PIP tool, we were able to identify the factors considered to be the most critical for the implementation of projects. To support and corroborate this finding, we analysed and used some data from the in-depth interviews (Appendix D) that were conducted with all the main stakeholders.

3.4 Tools for successful project delivery

Once the critical factors were regrouped, those with the lowest performance required to take some actions. Therefore, a literature review was conducted on project management tools and techniques in an attempt to improve the performance of those factors and thereby, attempt to improve the effectiveness of the timely completion of projects. As stated by Kam Jugdev et al. *''knowing more about PM methods, techniques and tools can help organizations be more successful in project delivery"* (Jugdev et al., 2013, p. 535).

Furthermore, based on different literatures on PM methods (Maley, 2012; Besner & Hobbs, 2012; Perce & Childre, 1998; Wilson, 2003; Tache & Ispăşoiu, 2013) and on different studies showing the most effective and well known PM methods (White & Fortune, 2002; Fortune, White, Jugdev, & Walker, 2011; Fox & Spence, 1998; Besner & Hobbs, 2008), we first propose some PM tools and techniques that aim to help project managers avoid delay on the implementation of projects. After comparing the latter tools, the most appropriate and workable for the portfolio department was selected, and with this in mind, a practical tool was developed and proposed.

4 The core of the study

4.1 Research Problem

To formulate the research problem for this study, the first step was to conduct a focus group interview that was guided using the “Critical Matrix” of AB InBev’s SuEP program (Appendix A). This matrix is used by every department in the company, in order to assess and prioritize outputs or processes and define the critical ones. Indeed, according to the SuEP program, “what is going wrong” should be address first and foremost (AB InBev, 2016b).

Furthermore, this matrix defines the critical processes according to two criteria: "product impact" and "client’s satisfaction". In the paragraphs below, we will explain in detail the dimensions applied to each criteria.

Product impact

- Quality: Includes products and services with lack of defects and presence of characteristics that satisfy the client. Moreover, it also includes the quality of the department routine, training quality, information quality, personnel quality, and work quality of all the people in the department (AB InBev, 2016b).
- Cost: In order to have a competitive product, prices must be competitive in the market. Indeed, clients tend to purchase the product if the price stands up to their expectations and needs. Therefore, to offer competitive prices, each process must perform at the lowest possible cost (i.e. avoiding any mistake that can generate extra costs) (AB InBev, 2016b).

- Delivery: Involves the availability of the product as far as: on time delivery, the right amount, at the right place. This is measure with the KPI: OTIF (On Time In Full) (AB InBev, 2016b).
- Morale: In order to achieve the other dimensions, people on the department need to have a high morale, this means to be happy and proud of their job (AB InBev, 2016b).
- Safety: Includes safety of employees at work and of users of the product. Indeed, the product consumed also needs to be safe for consumption by the final client (AB InBev, 2016b).

Client's satisfaction

- It concerns the satisfaction of the client (internal or external) regarding the process. It is worth mentioning that this dimension was completed according to client complaints received by the department; external clients did not participate to the focus group interview (AB InBev, 2016b).

After gathering all the inputs from the portfolio team, we entered these scores in the "Critical Process Matrix" (Appendix A). This matrix shows that a main area for improvement should be the RFS implementation process, as it got the highest score (24 points). This score was calculated according to the following table:

TABLE 4.1: Scores to define the critical process (AB InBev, 2016b)

Score	Impact level	Satisfaction Level
5	High impact	Dissatisfied
3	Medium impact	Satisfied
1	Low impact	Very Satisfied

However, the root cause for this critical process was still not clear. For this purpose, a SWOT matrix was developed, based on our observations, experiences and day to day talks with colleagues. After analyzing this matrix (Figure 4.1), we attempt to find a root cause for the poor performance of the RFS implementation process.

SWOT Analysis

The below matrix examines the Strengths, Weaknesses, Opportunities and Threats of the RFS implementation process.

Strengths	Weaknesses
• RFS tool acts as a central bible and mean of communication • Defined Lead Time for completion of RFS's • Weekly team meetings • Weekly PCC (Pack Change Committee) meetings	• No priority management • Too much manual processes • High turnover, knowledge loss • Workload not evenly distributed • Quality of the RFS submitted
Opportunities	**Threats**
• VP, directors approve offline via mail • Technical support (MS projects, ...) • Training project initiators	• RFS tool not flexible • Different processes/ way of working per zone • Team motivation • Growing complexity

FIGURE 4.1: SWOT Analysis

Strengths:

- RFS tool acts as a central bible and mean of communication:

In the beginning of 2015, the portfolio management department started using a new project management tool, called the "RFS tool", in which stakeholders submit their RFS's (projects that request a feasibility analysis), this tool helps the department to gather different information about the project (i.e. the description and objective, the first shipment day, the initiator's name, the target volume requested, the reference of SKU's impacted, etc.). All this data can be extracted in an Excel file to create reports that can later be shared with all the key stakeholders.

- Defined Lead Time for completion of RFS's:

Besides the identification of eleven "types of RFS's", the portfolio department has also defined a standard lead time of thirteen weeks for the implementation of all these projects. However, depending on the type of project, it can be certainly less than thirteen weeks, this lead time represent a condition for project initiators to consider requesting the delivery day of the project after thirteen weeks.

- Weekly team meetings

Every Wednesday, the SC Portfolio Manager leads a meeting with the whole team to discuss diverse concerns. This meeting represents a big opportunity to share advices, knowledges or lessons learned during the implementation of projects (e.g. announcing that it will no longer be possible to deliver CHEP pallets to export markets).

- Weekly Pack Change Committee (PCC) meetings

Once a project is approved by the VP's (Supply VP, Marketing Director and Revenue Management Director) and if it involves any pack change, its implementation will be followed on the PCC meeting, where all the parties involved in the implementation of the concerned project will discuss the steps to follow, more precisely on the art-work process which is the trigger for most departments to start their respective task. This meeting helps to monitor, follow-up and respect the timelines of these projects by allowing the transfer of communication with respect to the latest information and updates of the project.

Weaknesses

- No priority management

The number of projects submitted varies greatly between months. While gatekeepers are following the implementation of projects, new projects are submitted and request a feasibility analysis. But, without any priority management, it is hard to identify real urgencies. Consequently, projects tend to be analysed according to the responsiveness of project initiators, meaning that the initiator who pushes the most will be addressed in the first place, while other projects with a critical delivery time may be left behind.

- Too much manual processes

Although the RFS tool was developed in the attempt to help the management of projects, some of its functions are forgotten or avoided by the project team. Indeed, the implementation stage can be tracked on the RFS tool, however, it demands from the

department that finishes its task to click on a button every time its task is completed. This can represent an extra workload when we consider the number of projects the department deal on a monthly basis, not to mention that the time to open this tool is too slow.

- High turnover, knowledge loss

The knowledge of the gatekeepers is something that improves with time. Indeed, one can only learn over time all the special details of each type of projects and use this experience to improve not only its performance but also the success of the project delivery. However, in the last couple of months, there has been a high turnover on this role, leaving only one experienced gatekeeper on the team. Consequently, projects need to be followed by new personnel, but to follow projects that were handled by others is not always an easy task, this results most of the cases, in a delay on project delivery.

- Workload not evenly distributed

Gatekeepers are divided by zones, meaning that every time a project involves one of the filling lines of its zone, it is their responsibility to make sure that the feasibility analysis and the implementation will be done as planned. This way to divide the workload could imply that every zone has the same number of breweries (Appendix I), which is not true. This can be offset by the complexity of projects, indeed, one gatekeeper may have a lot of projects that request "easy and small changes", while others may have a few but very complex project. Nevertheless it is still not the most appropriate way to distribute the workload. Projects should not wait for their corresponding gatekeeper to be available, when another gatekeeper can step in, otherwise the risk of the busy gatekeeper to not be able to respect the timelines may increase.

- Quality of the RFS submitted

When submitting a project on the RFS tool, it is requested to fill all the mandatory fields (cost center, delivery day, type of change, MACO, target volume, etc.) and write a clear objective and description of the project. However, most project initiators do

not respect it, indeed, projects are submitted without indicating the request volume or MACO, with no objective or short explanation of the project, this incompleteness initiates unnecessary emails, misunderstanding from the very beginning and time loss that can prejudice the delivery schedule of the project.

Opportunities

- VP directors approve offline via mail

Once the feasibility analysis is completed, these projects must pass through the VP's approval, which is only on a biweekly basis, meaning that projects that were not presented during this meeting must wait for an extra two weeks to have the last approval. This could significantly delay a project's timeline. While it is true that with the tight agenda of VP's this meeting cannot be done every week, problems on the schedule of some projects can be solved by allowing some approvals via emails.

- Technical support

Despite the many project management tools present on the market, for instance Microsoft Projects, Primavera Project Planner, Project Workbench, etc., the tools used by gatekeepers to follow the status of projects and ensure its timely completion, are still only excel files and emails. That being said, investing on a system to help the monitoring and follow up of projects can result in huge advantages, not only allowing gatekeepers to follow the projects in detail, avoiding projects delay, but also letting them more time to analyze new projects.

- Training project initiators

As seen on many projects, the information submitted is not always enough or mandatory fields are not always completed. One of the causes could be that project initiators are not well trained, or do not understand what was requested. A better training (i.e. using videos, power points, handbooks), teaching them how to submit correctly a project, could significantly increase this completeness compliance and safe a lot of time.

Threats

- RFS tool not flexible

Although the RFS tool was a big improve for the registration of RFS's, this tool became really slow with the increasing amount of RFS's and all the data uploaded on the tool (excel files, slide decks, photos). It is no longer flexible enough in terms of adding new feature or correcting issues. Furthermore, since this tool is the main way to keep different stakeholder aware of any new project, all the bugs and especially the time it takes to open it, may increase their workload and, in the long run, affect the project schedule.

- Different processes/ way of working per zone

As gatekeepers are divided by zones, the way they work is different. On the one hand, it can be seen that Germany has a well establish process, with engaged stakeholders and project initiators, which can mainly be thanks to its experienced gatekeeper. However, on the other hand, it can be seen that Russia and Ukraine suffer from a not well-defined process and UK has a different Pack Change process. This lack of standardization could lead to a bad utilization of work efforts (Yash, 2012), which in consequence can harm the project's schedule.

- Team motivation

As many multinational companies trying to reduce cost, AB InBev decided to transfer the positions of Master Data and BOM specialist to Prague, knowing that their role would no longer be needed in Belgium, it was inevitable that their motivation towards their work would decreased. And as they played an important role from the very beginning of the process, a delay on their work results in a delay on the whole project.

- Growing complexity

After the acquisition of SAB Miller, the portfolio of AB InBev increased drastically, and with this the complexity and the number of projects to handle by the portfolio

management department. This demands a rethinking of the proposed standard lead time of thirteen weeks for project completion.

Having completed the SWOT analysis of the RFS implementation process, the analysis revealed that one of the root causes for this process to be critical, and therefore the research problem of this thesis, could be the delay in delivering or implementing projects according to schedule. This finding will be corroborated with secondary quantitative data gather from AB InBev internal reports.

In this manner, we have analyzed some reports coming from the RFS tool. First, we have regrouped the number of RFS's submitted, approved and implemented, as shown on Figure 4.2. In this graph, we can observe the increasing number of RFS's over the past three years (534 on 2014, 778 on 2015 and 832 on 2016) and that not all projects submitted are approved. Indeed, it can be seen in the chart that the number of projects approved is always slightly lower than the projects submitted each year (450 out of 534 in 2014, 638 out of 778 in 2015 and 644 out of 832 in 2016).

In the same way, not all approved projects reach the full implementation stage, indeed, at the end of the year only 364 out of 450 approved projects were completed and fully implemented in 2014. In 2015, 571 out of 638 were fully completed and in 2016, 569 out of 644.

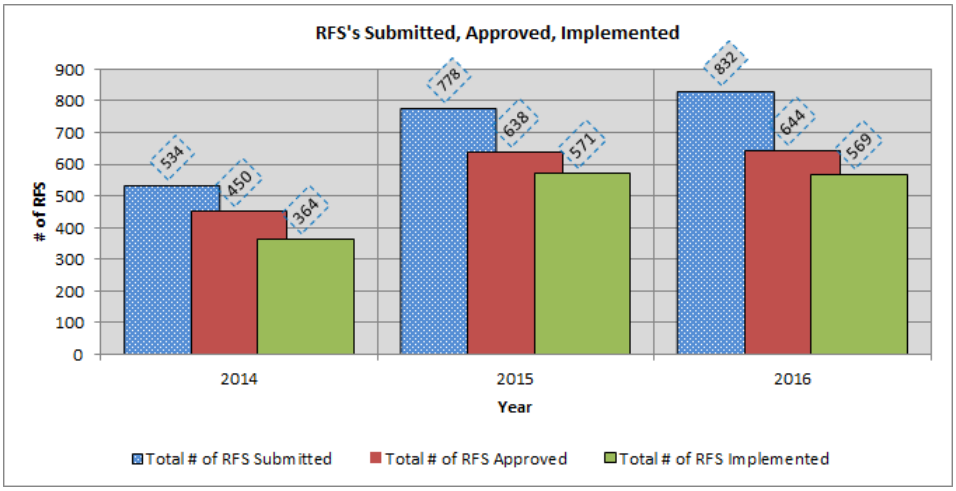


FIGURE 4.2: RFS's Submitted, Approved and Implemented

Furthermore, we have compared the delivery date (first shipment date) requested by the project initiator with the actual implementation date. The following chart shows that among the projects implemented during the last three years, only a very small percentage was implemented on time, meaning that a majority of the projects were completed or implemented after the actual first shipment date. With these two graphs, we have shown that while the number of projects requested is growing each year, the number of projects implemented is far from respecting the schedule or timelines requested. Therefore, it is important that this issue is addressed, to the benefit of both clients and the organization.

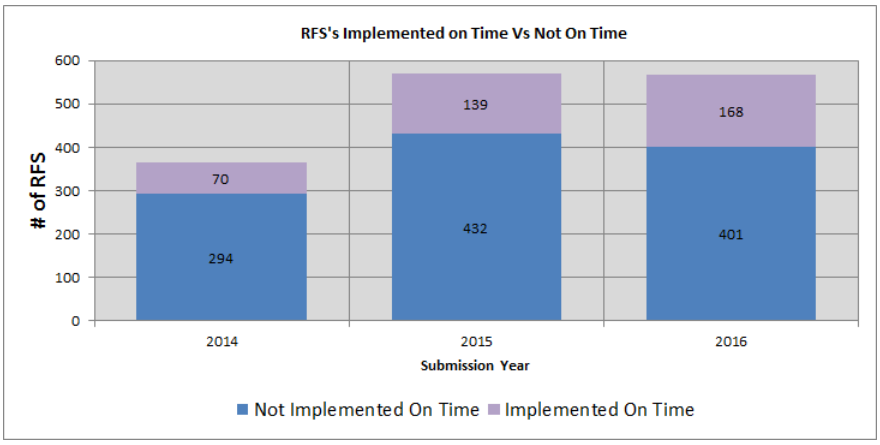


FIGURE 4.3: Implemented on time Vs Not implemented on time

4.2 Research questions

Having identified the research problem in the SC portfolio department at AB InBev, namely the implementation of projects being behind schedule, the present study addresses the following questions:

1. What are the critical factors that can have a significant impact on the successful implementation of projects at AB InBev?
2. What are the tools or techniques that can address these factors?

5 Literature Review

5.1 Critical success factors (CSFs)

Bearing the purpose of this thesis in mind, namely to help the portfolio management department to better manage their supply chain projects to successfully complete them, we will examine critical factors for a successful project implementation. As stated by Alias et al., *"the study of critical success factors (CSFs) is often considered as one of the vital ways to improve the effectiveness of project delivery [...] It encompasses many elements, which have to be synchronized to ensure the project delivery on time"* (Alias et al., 2014, p. 61). But, before addressing these factors, we will provide a working definition of what CSF means when talking of "project implementation":

> Critical success factors are characteristics, necessary dynamics or conditions to exist, sustained, maintained, or managed in order to facilitate successful project implementation (Milosevic & Patanakul, 2005; Pinto, 1986).

Although different authors have identified various factors for a successful project delivery (Appendix C), the work of Slevin and Pinto remains predominant. Indeed, their study applied both, empirical and conceptual approaches (for more information about how this study was performed, see Pinto and Slevin, 1987). As a result of their study, ten factors considered crucial to project implementation were regrouped, along with the "Project Implementation Profile" (PIP) tool that can help project managers to monitor and assess the aforementioned factors.

5.1.1 Critical factors for successful project delivery

1. Project mission: This factor refers to the importance of developing a clear goal before projects kicks off. Indeed, several authors have discussed and reviewed the importance of the project mission and of its successful delivery (Morris, 1989; Cleland & King, 1988). As projects often demand a large amount of organizational resources: monetary, human and material resources, it is imperative that before such an investment, the goal or mission of the project is already well defined and known among all stakeholders involved or impacted by a project (Pinto, 1990).

2. Top management support: This factor refers to the willingness of upper management to provide support and the necessary resources for project delivery success such as time, money, technical support, manpower, etc. (Slevin & Pinto, 1986). Therefore, without a visible support from upper management, the project implementation process may be hindered as *"the project may be seen as unnecessary, pointless, or unimportant by the rest of the organization."* (Slevin and Pinto, 1986, p. 59). Indeed, for the RFS implementation process, gatekeepers depend on the direction and authority of upper management for selecting the most profitable projects that will be further implemented, but they also rely on them when the project is experimenting difficulties. In such cases, upper management should offer the necessary aid or additional resources to support the successful project implementation.

3. Project schedule/plans: A satisfactory project implementation requires, among other things, to have a detailed workable plan with all the actions or steps necessary for the project completion and implementation as well as milestones, manpower, equipment and budget to be correctly scheduled. Finally, the plan schedule must include a measurement tool to judge the actual progress of the project against schedule projections (Pinto, 1990).

4. Client consultation: Unlike Slevin and Pinto, who considered clients *"as anyone who is the ultimate, intended user of the project, as either a customer outside the company or a department within the organization"* (Pinto, 1990, p. 174), we consider clients only those departments within the company who are involved in the implementation of the project, namely the initiator of the project, MD, BOM, DP, SNP, MRP, Procurement, Marketing, etc. Because projects are often subject to changes throughout their implementation process, it is crucial to maintain a regular communication and consultation with all "clients" or "impacted parties". Indeed, by maintaining all stakeholders informed of the status of the project we can avoid misunderstandings, surprises or issues when the project reaches the next step in the implementation process and demands an action from them (Pinto, 1990). Furthermore, the support from stakeholders during the implementation process will varied considerably depending on the degree to which they are personally involved, this is another reason why this factor must be carefully considered (Cleland, 2004).

5. Personnel: This factor refers to the development of a project team with all the necessary skills and commitment towards the project's success (Cleland, 2004). This represent a challenge to the implementation of projects, as it requires time to recruit, select and train the necessary and the right people involved in the implementation of projects. However, this is often overlooked by most organizations (Pinto, 1990). Consequently, with a lack of personnel or personnel lacking the right skills, the project implementation process may further encounter some difficulties.

6. Technical tasks: To support the completion and implementation of projects, the project manager and personnel must have adequate technology available and expertise to support project development. Indeed, it is not enough to work with the right people; one must understand that proper technology is equally important (Pinto & Slevin, 1987). Companies must ensure they have personnel with the necessary technical skills and that they have the adequate technology to perform their task (Pinto, 1986).

7. Client's acceptance: Once the implementation process is in the final stages, one must ensure the client's acceptance, meaning that clients are satisfied with the project. Indeed, project managers wrongly believe that once they handle the other stages of the project implementation process, clients will automatically accept the final project. The truth is that to successfully complete and implement a project, it is not enough to perform the technical and operational tasks, it is also important that the project manager performs the function of "selling" to gain client's acceptance (Pinto, 1990). For instance, when a project initiator asked to import a certain SKU from a specific market without knowing that there is another market that can provide the same SKU, in a less expensive but, unfortunately, more time-consuming fashion. It is then up to project managers to play the function of "selling" this other market in order to reduce costs and not just assume that the delay on the delivery date will be accepted by the project initiator .

8. Monitoring and feedback: Throughout the implementation process, all the key stakeholders involved in the project should receive feedback on the status of the project comparing to the initial estimates (Pinto & Slevin, 1987). This is a crucial factor for the implementation of projects, as it also encompass the monitoring and fine-tuning of the implementation process and the monitoring performance of the stakeholders that are involved and responsible for the completion of projects (Pinto & Slevin, 1987). Even though there is *"little general agreement on how to track projects, what features to track, and how to report these data"* (Cleland, 2004, p. 25), paying attention to this factor helps project managers to anticipate any kind of problem, to oversee the appropriate corrective measures and to ensure that nothing is overlooked. Indeed, the better the monitoring and control mechanisms for assessing the project progress, the better the final quality of the project (Pinto, 1990).

9. Communication: Successful project implementation needs constant communication between all the parties involved in the project, to ensure the exchange of all relevant and pertinent information such as project goals, changes in policies and procedures,

status reports, etc. (Pinto & Slevin, 1987). Indeed, the presence of adequate communication channels, creates an appropriate atmosphere for good communication, this in turns avoid communication difficulties between the project team, the rest of the organization and the client, which is essential for successful project implementation (Slevin & Pinto, 1986). Furthermore, Tushman and Katz suggest the important role of "gatekeepers" for the project communication, they define "gatekeepers" as a member of the project team whose role is *"to not only gather, translate, and encode external information, but to also facilitate the external communication of their colleagues"* (Tushman and Katz, 1980, p. 1074).

10. Trouble-shooting: Regardless of how carefully the implementation of projects is being managed, unexpected problems or trouble areas are impossible to foresee. Consequently, this final critical factor refers to the ability to address these kind of problems or deviations from the actual plan by using contingency plans, certain procedures or troubleshooting mechanisms (Pinto, 1990). Indeed, the key is *"not how well problems are avoided, but knowing the correct steps to take once problems develop"* (Cleland, 2004, p. 26). It is in this manner that constant fine-tuning and readjustment throughout the project implementation process are necessary to address any potential problem areas (Slevin & Pinto, 1986).

5.2 Project Management Tools and Techniques

In this section, we will describe four of the most effective and widely used tools and techniques for a project manager. But before proceeding, it is worth highlighting what we understand by "project management tools and techniques". While, the latter expression often refers to specific project management software and computer-based tools (Besner & Hobbs, 2008). Here, we understand project management tools and techniques in a broader sense, as any aid that could be used to assist the project manager or the project team to effectively manage the activities of the project.

5.2.1 Gantt Chart and Work Breakdown Structure (WBS)

According to renowned authors and several studies, the Gantt chart is one of the most widely used tools in the field of project management, especially when it comes to time management planning (Maley, 2012; Besner & Hobbs, 2012; White & Fortune, 2002; Wilson, 2003; Fortune et al., 2011; Tache & Ispăşoiu, 2013; Jugdev et al., 2013; Heerkenns, 2002; Besner & Hobbs, 2008). Indeed, despite its old age, dating back to 1939, when the Gantt charts started being used for managing project, it still remains a popular and one of the most frequently used tools nowadays (Wilson, 2003).

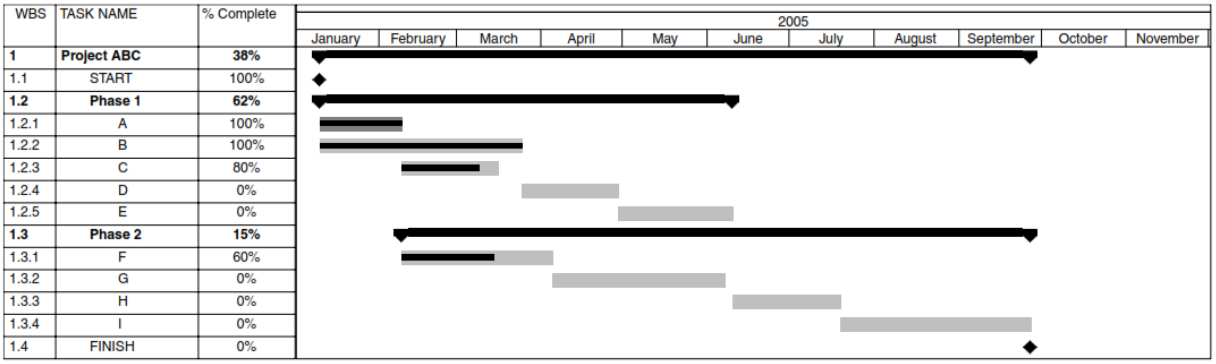


FIGURE 5.1: Gantt Chart (Cleland, 2004)

The figure above shows how a project can be monitored or controlled using a Gantt chart. That said, an important input to consider for the creation of the Gantt chart is the Work Breakdown Structure (WBS), this is often plotted against a Gantt chart (Kerzner, 2009) and is an important planning document of a project, if not the most important, functioning as *"the skeleton of the project"* (Andler, 2011, p. 315). It lists and breaks the work down into logical subgroups, in order to accomplish every major and minor activities required to execute the project (Heerkenns, 2002). A common error is to attempt to build the Gantt chart without a predefined WBS and to try, at the same time, to define the WBS, the time schedule and the relationship of all the project's activities (Maley, 2012).

> *"The Gantt chart can only be produced after the scope of work, work breakdown structure, activity estimation, and activity network have been built and verified – these are inputs"*
>
> — Maley, 2012, p. 178

Having clarified the necessary inputs to develop a Gantt chart, we can now expand on the details concerning this chart. A Gantt chart shows the start and end dates of all the project activities and therefore the expected time for the completion of the project. This duration can easily be read thanks to the horizontal bars representing each activity of the project and plotted against a time scale often found at the top of the Gantt chart (Duncan, 1996). Furthermore, milestones and dependencies can also be seen on this chart. Milestones defined the due dates or the end of a specific project phase, this is usually represented by single points or diamonds. Dependencies, for their part, indicate the required order to complete each task, to see whether or not a task is related to a previous one, preventing someone to move forward if the previous task was not started or completed (Jenkins, 2006).

By using this tool, all the parties involved in the project are able to see at glance all the required work to ensure timely completion of a project. Indeed, the graphical representation of all the project's activities allow to monitor, evaluate and track the progress of each activity by coloring the horizontal empty bars and thereby showing the progress of the project on a daily, weekly, or monthly basis (Lester, 2014). It is worth mentioning that this tool is primarily designed to be used for internal purposes. This includes the project team members and some key stakeholders (Heerkenns, 2002). Furthermore, it must be continually revised and updated by the project manager and the key members of the project team *''to optimize the chart and resolve key project 'must dates' conflicts, lack of resource availability, and other conflicting constraints"*(Maley, 2012, p. 179).

5.2.2 PERT and CPM

The "Program Evaluation and Review Technique" (PERT) and the "Critical Path Method" (CPM) are two closely and widely used project management techniques. They both

help to coordinate the different project's activities, to develop a realistic schedule plan and to monitor the progress of projects by using network diagrams (Hillier & Lieberman, 2015). Indeed, each of these techniques uses networks to represent projects. While both techniques were independently developed in the late 1950s, they are often used together nowadays, as most of its important characteristics have merged over the years. This is commonly known as the *PERT/CPM techniques* (Hillier & Lieberman, 2015). We will first describe first the common techniques of PERT/CPM and then review the difference between the two techniques.

Project Networks:

The PERT/CPM techniques provides a better view of the flow of all the activities in the project, by means of a network diagram (Appendix E shows an example). In order to develop a PERT/CPM diagram, the following inputs should be provided: (Hillier & Lieberman, 2015) First provide the WBS of the project, as it was done for the development of the Gantt chart. Secondly, the immediate predecessors of each activity should be identified, these are *"those activities that must be completed immediately prior to the start of the activity in question"* (Eppen, Gould, Schmidt, Moore, and Weatherford, 1997, p. 5). Finally, the duration of each activity should be at least estimated.

The Critical Path:

The PERT/CPM techniques uses a critical path method to estimate the minimum duration required for the overall project completion by analyzing *"which activities (which path) has the least amount of scheduling flexibility"* (Project Management Institute, 2013, p. 75), these activities can be called critical activities, we must avoid any delays in these activities. They must be completed on time, otherwise the whole project will suffer and it will delay the project completion date (Hillier & Lieberman, 2015). On the other hand, an activity that is not on this critical path, will have some "float" or flexibility. *"Float is the amount of time an activity can be delayed without it becoming a critical path activity"* (Street Ian A, 2000, p. 35).

Scheduling individual activities: (Hillier & Lieberman, 2015)

In order to see when individual activities can start in a world with no delay, the PERT/CPM gives the techniques to identified the earliest start (ES) and earliest finish time (EF) of a given activity, where the starting time for a project = 0, the expected activity time = t, ES = the largest EF of the immediate predecessor and EF = ES + t.

Additionally, it provides the given time at which an activity can start or finish without delaying the project completion, noting LS = Latest Start time and LF = Latest Finish time, where LF = smallest LS of the immediate successors and LS = LF - t.

Having discussed the characteristics that applies for both CPM and PERT, we will now describe the differences between both techniques: (Kerzner, 2009)

- In order to derive an estimated time for the completion of a certain project, PERT uses a weighted average of three estimates : optimistic, pessimistic, and most likely. CPM, in contrast, uses only one time estimate for each task.
- PERT is a probabilistic technique that enable us to calculate the risks in completing the project's activities and the entire project by means of a beta and a normal distributions, it gives us "the most likely time" for the project completion. On the other hand, CPM uses a deterministic model, it gives us then an exact time for the project completion.
- PERT is best for projects where the activities are unpredictable or have a high variability such as research and development projects, in contrast, CPM is bests for projects with low variability or having predictable activities such as construction projects.

6 Empirical Analysis and Proposal

This chapter is divided into five sections. Section 6.1 will describe the tool: Project Implementation Profile (PIP), developed by two renowned authors in the field of project management, Jeffrey Pinto and Dennis Slevin. This tool was used in an attempt to identify the root causes for delivering projects behind schedule. Indeed, by using this tool and after the analysis of the in-depth interviews, we were able to select the most critical factors impacting the implementation of project at AB InBev. This is discussed in section 6.2. Section 6.3, on its part, describes the reasoning behind the selection of the PM tool that will address the top three factors found to be critical for successful project delivery. Finally, we will end with the proposal and the limitations of the tool developed for the portfolio management department in section 6.4.

6.1 Project Implementation Profile

As explained in section 5.1, the ten critical success factors were identified through the work performed by Jeffrey Pinto and Dennis Slevin. Along with this list, and after their study was benchmarked against a database of over 400 projects (Pinto, 1990), a tool named "Project Implementation Profile" (PIP) was developed. After preliminary use of the PIP tool, it has been proved that this tool serves as a useful diagnostic instrument to project managers (Slevin & Pinto, 1986). Some examples includes studies in the NGO sector (Rusare & Jay, 2015), construction and R&D projects (Pinto & Covin, 1989; Chan & Chan, 2004), and information technology (Tan, Cater-Steel, & Toleman, 2009; Finch, 2003).

The PIP tool provides project managers with a set of five questions for each of the ten critical factors described in chapter five, thus making a total of 50 questions. In this manner, the PIP tool uses a questionnaire (Appendix C) to gather information about the management of projects by focusing on the ten critical factors and thereby evaluating and diagnosing a project during and after its implementation (Rusare & Jay, 2015). Indeed, each question on the tool is assessed on a Likert scale of 1-7, with 1 being "strongly disagree" and 7 being "strongly agree". Once the questionnaire is administered to key participants in the project, the scores obtained are sorted in categories (Good performance, Fair performance, Poor or Critical performance) to make sure that the factors which are the most critical will be given extra attention (Slevin & Pinto, 1986).

> *"Project development and implementation is a dynamic, ongoing process, requiring constant review and reassessment in order to gain an accurate picture of the project at any point in time."* (Pinto, 1990, p. 175)

Bearing in mind the above, and the *"turbulent, unpredictable, and dynamic environment"* (Pinto and Slevin, 1987, p. 168) where projects are often initiated, the reason why periodic reviews are necessary to manage the status of a project becomes apparent. It is with this perspective that the PIP tool is suggested to be used on a regular basis and, in so doing, project managers can track the performance of each factor over time and thereby allocate their time and resources effectively (Pinto, 1990).

Routine to use the PIP tool

For a regular assessment of the project implementation process at AB InBev, the flow chart in Figure 6.1 shows a suggested routine, using the PIP tool.

1. The first step is to collect data. Rusare and Jay (2015) and Finch (2003) studies suggested that the the PIP questionnaires should be completed by three key members of the project team: the project manager, a project member and a client representative.

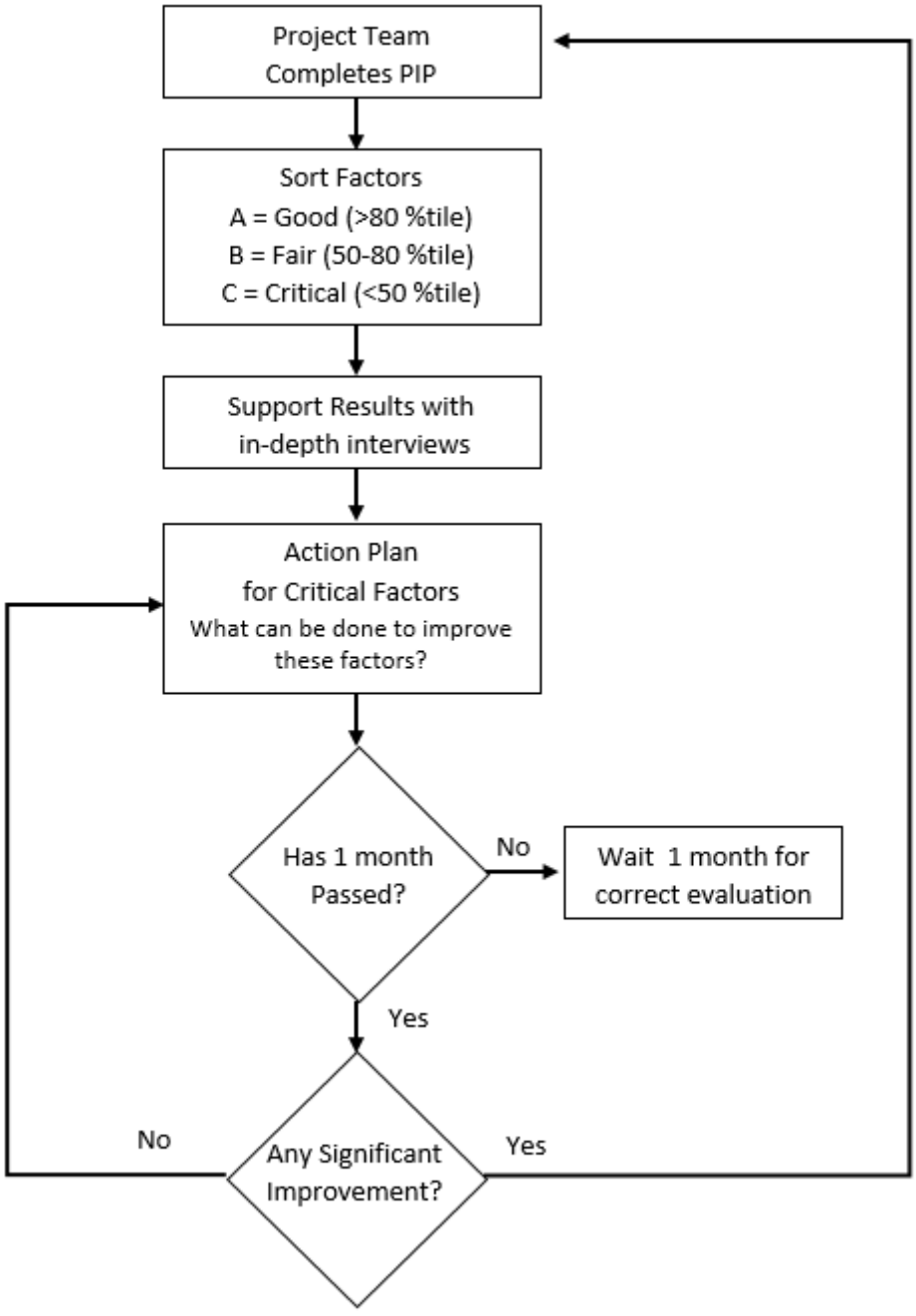


FIGURE 6.1: Routine to use PIP tool (Adapted from Slevin and Pinto, 1986)

2. Sort the results of the PIP questionnaire and with the help of the score grid (Appendix J) regroup the answers of each respondent according to three groups : A = Good (scores >80 %tile), B = Fair (scores between 50-80 %tile), and C = Critical (scores <50 %tile).
3. Support the outcome of the PIP tool with interviews and identify the critical success factors.
4. Develop an action plan for improving the scores of those critical factors.
5. This action plan should be reviewed on a regular basis, to assess any improvement of those critical success factors. If no significance improvement, one should go back to step four. If there is a significance improvement, one should go back to step one.

6.2 Selected critical success factors

First and foremost, it is worth highlighting that the use of the PIP tool and the analysis of its results was inspired by the methodology followed by the authors Rusare and Jay (Rusare & Jay, 2015), who used this tool to diagnose the management of a specific project. In this way, to select the critical success factors (CSFs), we conducted the study in two phases. First, once the PIP questionnaire was suitably adapted to fit the situation at AB InBev, we e-mailed these questionnaires to three key members of the project team: a gatekeeper, and two project team members (Pack change manager and Portfolio Expert), as was done by the authors Rusare and Jay (2015) and Finch (2003). Then, the scores for each factor was calculated by averaging the scores of respondents, the details of the scores can be found in Appendix C. This way, to sort and identify the performance of each CSF, the collected data used the following scores : scores between 80-100 percent are classed as having a “Good performance”, scores from 50-80

percent are classed as having a "Fair performance" and finally, scores from 0-50 percent are classed as having a "Poor or Critical performance" (Rusare & Jay, 2015). In the second phase, in-depth interviews conducted with eight members involved in the implementation process were used to support and validate the latter results.

6.2.1 Data analysis

Factor 1: Project mission

This factor had the second highest average score, 20 out of 35 (representing 57.1%), thus falling in the *fair performance* category, meaning that this factor was fairly well managed but could be improve. Indeed, in general, the interviewees agreed that the project could have a clearer and more explicit objective or description, but it does not impact significantly the implementation process. To support this finding, we will retrieve some data from the in-depth interviews, representing the general thinking of the interviewees.

Is the objective of the RFS clear to you?

"Well **sometimes** yes, but initiator knows all or more details but he only enters draft data not the detail data in the RFS tool and this is due to the fact that they are not aware that we need this input for the implementation."

— Nicole Vetter, Gatekeeper (Phone Interview, May 29, 2017)

"**Some of the request have clear goal**, some do not. I think it depends on so many things, you have requests base on old projects, [...] so the next time, he will come with all the necessary info, because he/she is experienced with this request"

— Vincent Sablon, MD specialist (Personal Interview, May 30, 2017)

Factor 2: Top Management Support

This factor had an average score of 17.7 out of 35 (representing 50.5%), thus falling slightly in the *fair performance* category. Indeed, this factor failed to be classed as *poor performance* for very little. This can be explained by the relatively low score that all

the respondents gave to this factor (all of them gave a score lesser than or equal to five). By implication, this means that this factor can still be considered as an area for improvement. Below some data, corroborating the fact that upper management in not giving enough support for the implementation of projects.

Is upper management responsive to the request of the project manager?

"**No**, I think because they don't actually know the process, [...] I think the gatekeepers get a lot of negativity from upper management, thinking that gatekeepers are holding the process, but actually I think that **they should understand the process**"

— Diane Scott, Pack Change Mgr (Phone Interview, May 31, 2017)

Do upper management understand your role in the implementation of projects?

"I think **in general is getting better**, but I think a lot of people **still miss what my role means** [...]. Everything grew on a way that everybody thinks that it will be solved in the RFS process [...] **I don't think they know the day to day job**, and what I handling, which kind of complexity, especially when issues arrived."

— Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Factor 3: Project Schedule/Plan

This factor had the lowest average score, along with factor 9. They both got an average score of 15.7 out of 35 (representing 44.8%), thus falling in the *poor performance category*. According to Slevin and Pinto (1986), this indicates that the project schedule is poorly managed, that the ways to measure the progress of projects is not 100% optimal and that all the necessary activities to complete the project are not correctly scheduled. This is therefore an area for improvement.

Do you think the delivery date of the project makes sense?

"I think the 1st shipment date is very important input especially for demand planner, but it is **never trustful**. [...] I always ask SNP or if I don't have the information from SNP I try to confirm it with the gatekeeper, [...] even one time I look to an RFS and the 1st shipment date was 2 weeks ago."

— Thomas Correa, Demand Planner (Personal Interview, May 31, 2017)

Is there a detailed plan used for the completion of a project?

"Every time we say that we have a 13 week process, but **it is not clear**. We know as gatekeepers that some RFS can take less or sometimes more than 13 weeks [...]. But as a general communication for stakeholders **is not clear**, [...] we see that **there is no real timeline**, from the start I think there could be more structure and more clear alignment. [...] initiator is the owner of the project, but they are not really aware of where is pending."

— Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Factor 4: Client Consultation

This factor had the highest average score, 21 out of 35 (representing 61%), thus falling in the *fair performance* category. This means that this factor was fairly well handled, with an ongoing consultation with clients, this factor contributes to an effective project execution. It should be remembered that "client" is understood as being someone from any department within the company that is involved with the concerned project.

Is the initiator of an RFS kept informed of the project's progress?

"**Yes via emails**, but I think they should also be interested in the process [...] We lack a lot ownership,[...] as long as they see the process running and nobody is escalating something, they are not really interested in the implementation of the project. As long as they see that everything is in track and that they still can get it the week that they want, they don't really care."

— Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Is it clear the key people who must support an RFS?

"The thing is that the intervention of stakeholders on the RFS process, is a only part of their job, there is no target or performance that they should reach, and everything relies on the RFS process, so it becomes **difficult to find the people who must support a specific project**. [...] The moment it is not some of your main activities or priorities, you will not put the same focus or same energy."

— Vincent Sablon, MD specialist (Personal Interview, May 30, 2017)

Factor 5: Personnel

This factor had an average score of 18.3 out of 35 (representing 52.4%), falling in the *fair performance* category, but still very close to the *poor performance* category. This could be partially explained by the fact that one of the respondent gave a score of 5 (Neutral) to all the questions. Nevertheless, after reviewing the data from the interviews, we are inclined to validate this result, as they are currently working in different trainings and document supports, but if it wasn't for that, this factor could rapidly move towards the *poor performance* category .

Do you think all departments are correctly trained on how the RFS process works?

"Before it was not available, but is something that **we are working on**, I think is really important that we bring a positive message to people [...] I think is really important to prepare a video, a training, and that we explained the importance of their contribution to the process." — Elise Van der Cruysse (Personal Interview, May 29, 2017)

Do you think all departments understand their responsibilities on the project team?

"No, I think we **should review this**. The RFS process had the role of coordinating the supply chain planning, but I see this evolve in much more responsibilities, but this was never "officialised", [...] we took on our department a lot of responsibilities, now we **need to makes this more clearly**, or we need to upgrade the profile of the people who are coming in to the team." — Vincent Sablon (Personal Interview, May 30, 2017)

Factor 6: Technical Tasks

This factor had an average score of 19.3 out of 35 (representing 55.2%), thus falling in the *fair performance* category. However, after reviewing the in-depth interviews, we are inclined to think that this factor should fall in the *poor performance* category. Indeed, according to all the members of the project team, the technology used to support the project implementation process does not work properly. Consequently, some specific tasks may not be well managed. Below, we support this finding with some data, representing the broad agreement among the project team.

The technology that used to support the project implementation works well?

"**No**, we have the RFS tool, but as you know **it does not work completely**, the software is **quite limited**, and due to capacity issues, etc, we **cannot use the whole settings of this tool**, like the check list. So the only think that can support is emails, meeting, call and excels." — Elise Van der Cruysse, Gatekeeper (Personal Interview, May 29, 2017)

"The responsive of the RFS **tool is very poor**, [...] I think the **tool desperately needs a rebuilding**, completely. Because the demand is changing almost every year, and the tool needs to be flexible and it is not the case. "

— Richard Cerjan, Portfolio Expert (Phone Interview, June 1, 2017)

An appropriate technology has been selected for a successful implementation?

"**No**, even if it is hard to believe, especially in such a big organization, we are **not up to date with the technology** [...] I think if they will be more aware of how complex and central our job is on the company, because everything that changes moves around us, I think there will be also more support on giving us the tools to work more efficiently."

— Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Factor 7: Client Acceptance

This factor had the third lowest average score, along with factor 10. They both got 17 out of 35 (representing 48.6%) falling in the *poor performance* category. Indeed, the interviewees agreed that there is no adequate documentation or support for project initiators, where they could see the status of their projects. Consequently, even if they want to give more details on the projects, they may not see when is needed.

Is there an adequate (easy to use) support for clients to see the progress of the RFS's?

"Our tool was created with a functionality where they can check the status of the projects and see where is missing something, but it **is not working now.** We have an excel file, but this is only internal, it is in a folder that not all initiators can access. [...] even if **initiators** would be interested in cooperating when something is missing and help, without contacting the gatekeeper they **don't have much options**."

— Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Do you think initiators are adequately informed of the project's progress?

"Well, initiator can always log in on the tool and check the RFS, they can see the status, they can see the comments, and they can see the approval date. But since the implementation tab is not working, they cannot see anything after the approval, they **cannot see in which step we are on the implementation process**."

— Richard Cerjan, Portfolio Expert (Phone Interview, June 1, 2017)

Factor 8: Monitoring and Feedback

This factor had the second lowest average score of 16.3 out of 35 (representing 46.7%) falling in the *poor performance* category. This rating shows that the monitoring and the follow up of projects must be improved. Indeed, during the interviews, we could see that even though there are regular meetings to monitor the status of projects (Pack Change Committee meetings), not all the key stakeholders are present to give inputs, which may make this meetings worthless because at the end of the day, the gatekeeper needs to do double work chasing the concern stakeholders to know if their task was completed and be able to provide accurate feedback to the project team. Additionally, this can also be partially explained because of the poor performance of the RFS tool, which limits the follow-up and monitoring of projects. The general thinking of the respondent during the in-depth interviews tend to confirm this finding.

How well do you think the RFS's are monitored?

"Well, it is always the same story, **the monitoring of project is not well manage for the moment**, because initiators submit an RFS but do not respect the process, so if someone escalates then the whole process get mess, they creates extra work, then our KPI is affected and it creates delay to everyone." — Richard Cerjan, Portfolio Expert

Do we take advantage of the PCC meetings to correctly monitor the status of RFS's?

"I think that the PCC meeting really benefit the monitoring of RFS's, but I think that what **we struggle is having the right people on the meeting**, [...] and I think that they rather don't have the time, or they think that it is not necessary, maybe they don't see the advantage of taking part of that meeting." — Diane Scott, Pack Change Mgr

Factor 9: Communication

This factor had the lowest average score as factor 2, it got a score of 15.7 out of 35 (representing 44.8%), thus falling in the *poor performance* category. After reviewing the interviews, we saw that the poor performance on this factor may be partially due to the channel of communication (everything goes via emails), and by wrongly believing that it is responsibility of the RFS team to successfully implement the projects. However, with little or no engagement from key stakeholders, communication could be strongly affected.

Do you feel that communication across the project team members is good?

"Well not for now, **the main tool of communication is via emails**, and communicating via email can be hard, a lot of stakeholders are involved and **with so many mails on a project it is hard to follow** and to know when something is addressed to you."

— Thomas Correa, Demand Planner

"I think the one thing within the RFS process is **the lack of communication**, not only to initiator, but also within stakeholders, I don't think is very clear at which stage we are within each project. [...] I don't believe that everybody knows at which stage the project is, and when their actions is needed, until you receive four or five mails, or someone is chasing you." — Diane Scott, Pack Change Mgr

"I think what is **lacking** in this company is **communication between department** and they really rely on the RFS gatekeepers to communicate in their place. But in my opinion, they already should communicate and create visibility on their self, especially the owners of the projects.' — Elise Van der Cruysse, Gatekeeper BE

Factor 10: Troubleshooting

This factor had the same score as factor 7, it got a score of 17 out of 35 (representing 48.6%), falling in the *poor performance* category. However, after reviewing the interviews, we are inclined to think that this factor should be classed in the *fair performance* category, indeed we found that this factor was ranked very low comparing to what was found in the interviews. While in the surveys, the respondents gave a score lesser

than or equal to five to all questions, during the in-depth interviews, most of the interviewees did not feel able to answer and justify the questions related to this factor. One explication, could be that the interviewees did not participate in any mitigation meetings and made their own assumptions. On the other hand, the gatekeeper stated that there are, indeed, brainstorming sessions and mitigations meetings when is needed.

In case of project difficulties, do you know exactly where to go for assistance?

"Yes, because most of the time we have **mitigation meetings**, where we try to put all the people involved in the call. I always organize this meeting if I see that everything is going wrong and that everybody is talking behind each other's, and nobody is really communicating, and I don't know if plan A is going to work, then I just organize a call, and then **most of the time we align on the plan**, and we agree on that point on the best solution."

— Elise Van der Cruysse, Gatekeeper BE

Are there any brainstorming session, to determine or face any kind of problem?

"Well, every time I realize some issue I first send an email and I bring my own idea or solution, and if I see that people do not understand what I mean or there is too much feedback and that we are including too many people. Then we organize a call, **for brainstorming**. We do this **often for innovation projects**, were we organize this kind of call already upfront, and we already **brainstorm** before an RFS is raised. It is a good practice, because people are informed already from the start."

— Elise Van der Cruysse, Gatekeeper BE

Conclusion

After using the PIP tool, we were able to have a detailed classification of the project management performance at AB InBev, and found the following results:

Critical factors in successful project implementation																			
Project Mission		Top Management Support		Project Schedule Plan		Client Consultation		Personnel		Technical Tasks		Client Acceptance		Monitoring and Feedback		Communication		Troubleshooting	
Respondent (PC: Pack Change Mgr, GK: Gatekeeper, PE: Portfolio Expert)																			
PC	15	PC	16	PC	9	PC	11	PC	15	PC	17	PC	8	PC	9	PC	13	PC	10
GK	25	GK	23	GK	18	GK	25	GK	25	GK	20	GK	25	GK	18	GK	17	GK	19
PE	20	PE	14	PE	20	PE	28	PE	15	PE	21	PE	18	PE	22	PE	17	PE	22
Moyenne																			
20.0		17.7		15.7		21.3		18.3		19.3		17.0		16.3		15.7		17.0	
Percentage																			
57.1%		50.5%		44.8%		61.0%		52.4%		55.2%		48.6%		46.7%		44.8%		48.6%	
Classification (A= Good Performance, B= Fair Performance, C= Critical Performance)																			
B		B		C		B		B		B		C		C		C		C	

FIGURE 6.2: PIP tool Score Result

Once all the result were corroborated and supported by interviews, the top three critical scores for successful project implementation were found to be: 1) Project Schedule Plan 2) Communication and 3) Monitoring and Feedback. The next step is now to develop an action plan for improving the score of these factors, this will be explained in the following section.

6.3 Selected Tool

After introducing in Chapter 5, some of the most effective and well known tools and techniques in the field of project management, this section will focus on describing the reasons why we decided to use the Gantt chart and WBS as being the most appropriate tool to help the portfolio management department improve the performance of the top three critical factors and therefore improve the effectiveness of project delivery.

6.3.1 Gantt Chart Vs PERT/CPM

Within the field of project management, the use of Gantt chart offers important advantages compared to the PERT/CPM techniques, these advantages will be briefly discussed below:

- As stated by Cleland (2004), the simplicity of the Gantt chart is its greatest strength. Indeed, several authors agree that Gantt charts are excellent visual aids to display all the necessary and important information of a project (Lock, 2007; Wilson, 2003; Cleland, 2004; Horine, 2009), allowing project members, clients, and upper management to easily see and interpret the schedule status, the progress and/or performance of a certain project. On the other hand, PERT/CPM techniques are difficult to be understood on sight. Indeed, when people are first confronted with these techniques, it can seem strange and difficult to use, due to their network diagrams (Lock, 2007).

- Whereas PERT/CPM need at least some trainings or knowledge on network diagrams to be able to use its techniques, Gantt charts require no training and little explanation. As stated by Lock, *"anyone who can understand a holiday wall chart or even a calendar should be able to understand a project Gantt chart."* (Lock, 2007, p. 187).

- Besides being easy to use and interpret, Gantt charts can be implemented without a big investment of resource. Indeed, the use of Gantt charts does not require any "specialized resource" (Besner & Hobbs, 2008), unlike the use of PERT/CPM that often requires complex software to be installed and maintain (Lock, 2007; Kerzner, 2009).

- Unlike Gantt charts, PERT/CPM fails to take into account a real time scale, as it simply shows *"all the project tasks in their logical sequence and juxtaposition"* (Lock, 2007, p. 188). Consequently, the project activities may be too often wield guesses, unrealistically short (Street Ian A, 2000).

While it is true that Gantt charts have shown significant advantages over PERT/CPM techniques, we must not forget the biggest advantage that PERT/CPM has over the Gantt chart:

- PERT/CPM is able to identify the logical interdependencies between the activities of a project. Such interdependencies are difficult to see using the Gantt chart, especially when the projects are complex and the number of activities and dependencies among them are high (Lock, 2007). In this manner, PERT/CPM by revealing the interdependencies of a project, it can identify potential weak links or problems and *"determine where the greatest effort should be made to keep a project on schedule"* (Kerzner, 2009, p. 495).

6.4 Proposal

Bearing in mind the research problem of this thesis, the critical factors encountered in the implementation of AB InBev's projects, the PM tools and techniques reviewed, and the interviews conducted with main stakeholders, we proposed and developed an excel tool using the techniques of Gantt charts and WBS.

6.4.1 Intention

> *"The main tool of communication is via emails; communicating via email can be hard, a lot of stakeholders are involved and with so many mails on a project it is hard to follow and to know when something is addressed to you."*
>
> — Thomas Correa, Demand Planner (Personal Interview, May 31, 2017)

As stated by the different stakeholders and confirmed during our internship at AB InBev, the use of emails is the main tool to monitor and communicate the status of different projects. While this tool is indeed needed to communicate between all the different departments and zones where the company is located, it is far from being a tool through which the project members can collaborate and support the completion of projects. Indeed, emails were not designed for task management purposes where project members could identify the progress of ongoing tasks and react when their action is needed (Sumecki, Chipulu, & Ojiako, 2011). Instead, by using emails, the members of the project have to send another email to request the progress of the project, or any other information, *"combating email with more email, which in turn generates ever more email"* (Duffy, 2016, p. 162). Consequently, it becomes difficult to track which project was discussed where, which documents (e.g repacking instructions, pricing sheet, slide decks, word docs) were attached, which information was missing, and by when each member of the team should complete its tasks so as to ensure the project implementation on time. This lack of visibility and issues can be avoided using a simple Gantt chart tool.

> *"There is no clear prioritization, we say that a prioritization is on 1st shipment dates but I don't think that this is always what should act."*
>
> — Vincent Sablon, MD Specialist (Personal Interview, May 30, 2017)

Furthermore, with no clear prioritization of projects, relying on emails for the monitoring and follow-up of projects may drag the project team into an inefficient time management. Indeed, the project team is unable to see which emails really need an immediate answer, and thus ends up reading all the emails, perhaps wasting important part of his time in some worthless emails. As a McKinsey study found, an average worker spends 28 percent of his work-time *"reading, writing, or responding to emails, and 19 percent of working hours trying to track down information needed to complete tasks"* (Chui and et al., 2012, p. 46). By using the Gantt chart tool, the project team may be able to prioritize their time more efficiently and increase their performance, as they can easily see the projects that require more attention.

> *"You have 20 mails, you don't know if you are late, if you need to send a reminder or ask for feedback."*
>
> — Elise Van der Cruysse, Gatekeeper BE (Personal Interview, May 29, 2017)

Furthermore, saving the Gantt chart tool in a folder where everybody has access, can provide an effective mean to inquire about any important information that is blocking the project, allowing the project team to define priorities, contribute to a strengthened cooperation, better understand when a project suffers from delays and propose possible solutions to keep the project on track.

In this way, we briefly resume the intentions of our proposal:

- To increase the visibility, coordination and communication on the status of the projects being handled.
- To ensure that all the project members got the necessary information and are aligned with the relevant deadlines.
- To increase the performance of the different project members.

6.4.2 Purpose

Before going into the details of how the Gantt chart tool should be used, we will first define "the purpose", "the goal" or "what we aim to achieve" with the Gantt chart tool:

- To reduce the delay on project delivery.
- To increase the scores of Factor 3 - Project Schedule, Factor 8 - Monitoring and feedback, and Factor 9 - Communication.

6.4.3 Instructions

Figure 6.3 provides a screenshot of the Excel file where we developed the Gantt chart tool. This tool is suggested as a replacement for the Excel file used during the PCC meeting, which is not working properly as it was linked with some data from the RFS tool that is not found anymore (Appendix F). Nevertheless, as it is often difficult to accept changes, it was decided to leave some features of the old file, such as the field for comments. In the section below, we will describe the steps needed to start using this Gantt chart.

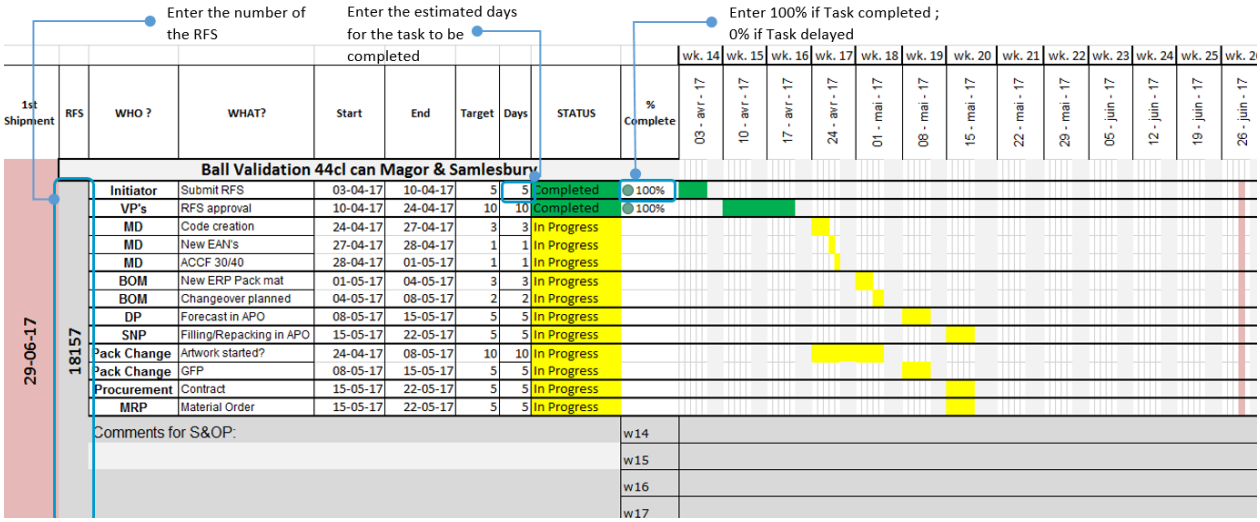


FIGURE 6.3: Gantt Chart Tool
(Excel File developed for the purpose of this thesis)

1. Develop the work breakdown structure (WBS):

   After a project is approved, the first and most important step is to develop the WBS, identifying which department is involved in the project, assigning responsibilities and defining each task and subtask that they will performed in as much detail as possible. The more details are provided for a task, the better it will be for the project team to monitor and track the progress of the project. While it is true that most of the RFS's require the participation of some well-known stakeholder (i.e BOM/MD, DP, SNP, MRP, Procurement, Pack change team), this is not always the case for all projects. Therefore, to avoid any misunderstanding and having to reconsider the planning all over again, it is important to reviewed the WBS for each new project to be implemented, reviewing the tasks assignations, and if someone should be left out or included in the project team.

2. Define time-lines :

   Once the RFS number is filled, the tool automatically gives the name of the RFS, the first shipment date (automatically appeared as a vertical bar on the chart) and the submission date of the concern project. In order to see the "horizontal bars" or the desired length of time for completing each task of the project, it is necessary to enter the estimated days needed to complete each task. Having done that, the end dates and following start dates will automatically appear. In this way, the project team can clearly see when a task starts and when it ends, avoiding any confusion on the estimated date of the project's completion. Furthermore, to see the progress of the projects at any time and avoid unnecessary emails requesting their status, the tool should be updated during the weekly PCC meeting. For this purpose, the corresponding gatekeeper will need to type on the "% Complete": 100% if the task was completed according to the expected date or 0% if otherwise; in the case where the date is still not reached, it should be left empty. Then, the progress of the work will be automatically seen on the "horizontal bars" who will become green if the task is 100% completed. Additionally, the status cell will need

to be changed to "Completed" if it is found 100% and "Delayed" if it is found 0%, this data will serve to measure the performance of the project team, which will be later explained.

3. Define dependencies :

   With this Gantt chart, the project tasks are set to be in a sequencing representation. However, since there may be some projects with tasks that can be performed in parallel, or that cannot start until another specific task is finished, the use of dependencies will be required. It is up to the project leader to modify the start date of those tasks or linked it with the tasks they depend on. On the other hand, if the number of dependencies is significantly high, it is highly recommended to link it with just one task or best to hide them (Lock, 2007), as the chart will most likely look like a plate of spaghetti. We need to remember that the greatest strength of a Gantt chart is its simplicity (Cleland, 2004), by adding too many dependencies, the chart becomes complex and harder to read, and the project team will be less able or willing to use it.

> *"Remember that a plan is useful only if it is used, and the more complex you make it, the less it will serve as a living and working document."*
>
> — Mascitelli, 2002, p. 102

6.4.4 Measuring performance

To enhance the effectiveness of the tool, the data entered on the Gantt chart can be used for the identification and evaluation of KPI's. For instance, how each department was performing compared to the deadlines. It was therefore possible to count the total number of tasks per department, their tasks completed according to schedule, their tasks suffering some delayed and their tasks in progress or still to be started. This data was then used to make a dashboard for the project manager (Figure 6.4), where he/she could immediately see the overall view of the projects being handled

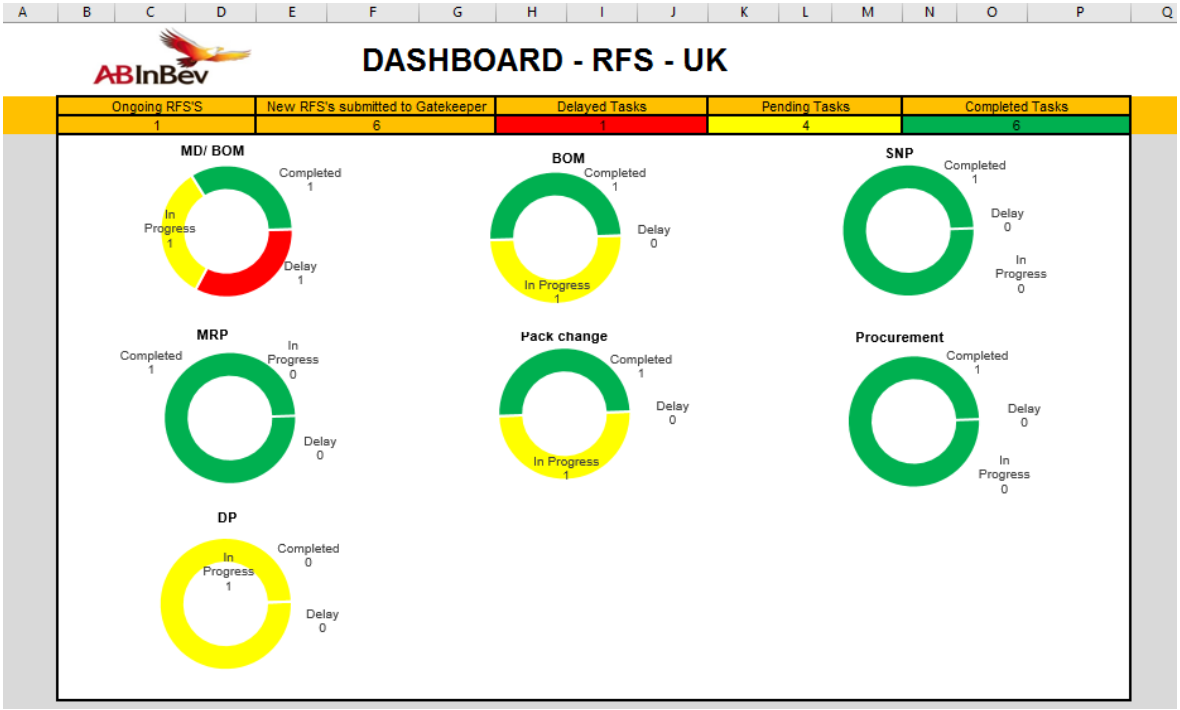


FIGURE 6.4: Dashboard RFS's (Excel File developed for the purpose of this thesis)

and the performance of each stakeholder, to see how many task are late and may need to be reminder and how many projects are waiting to be registered, thus knowing the amount of work they have for the week and how they can manage it more efficiently.

Furthermore, by keeping up regular meetings on a weekly or monthly basis, the project manager may be able to encounter the bottleneck of the project. In other words, he or she could find the department who is causing delay in most of the projects, blocking the projects to flow smoothly. It is imperative to find these bottlenecks as soon as possible in order to address the reasons why they are not able to perform their task on time, and be able to get the projects on track and delivered them according to schedule.

> Is the performance of the the project team asses? *"No, but I think that if we have a tool to track the status of each RFS, more interactive, maybe people would respect this whole process a lot more and all the work which is behind this."*
>
> . — Bastian Wiesner, SNP (Personal Interview, June 1, 2017)

Finally, keeping the project teams informed and aware of their weekly/monthly performance may encourage them to be more involved on the RFS process, to cooperate and to share important knowledge which can contribute to facilitate and speed up the implementation of projects.

6.5 Limitation

While the Gantt Chart tool was chosen as the main support for many project managers (Jugdev et al., 2013), giving them a full overview of the projects progress and helping them and the project team to manage effectively the different task in the project, it still remains only a supporting tool. It is not necessarily because of this tool that project managers will suddenly have all of their projects delivered on time.

This Gantt chart tool was developed as an attempt to help the project managers and the project team at AB InBev, to better plan, monitor and communicate the progress of the different supply chain projects. However, if after its implementation it is noted that the tool gives none of the previously mentioned results, then it may not be worth spending much more time maintaining it. Indeed, the use of Gantt charts need continuous efforts to update it (Morris & Pinto, 2007), as the project implementation evolves, the initiator of a project may ask to make some modifications of the original plan of the project, these changes imply modifying the Gantt chart too. With this in mind, the project manager should be able to update and modify this chart easily, otherwise the use of this chart could consume more time than it would save (Mascitelli, 2002).

Moreover, as already mentioned, it is possible to show some dependencies on this Gantt chart tool. However, as the complexity of a project increase, so does the number of dependencies. As a result, the Gantt chart can appear very overloaded and difficult to read and to understand. It is in this sense that the Gantt chart tool still fails to clearly reveal the dependencies between the different tasks. Additionally, one must note that the Gantt chart tool do not represent all the work behind the projects, it does not show

"the resources required, the funding, or any of the risk actions that need to be undertaken" (Maley, 2012, p. 179).

Certainly, the Gantt chart may have some potential disadvantages that cannot be overlooked. For this reason, it is suggested to combine the use of Gantt charts with other PM tools or techniques as dashboards, resource availability and resources allocations, etc., in order to balance its weaknesses with the strengths of other PM techniques. Relying on a single and exclusive tool *"is inviting project failure and organizational inconsistency regarding project performance"* (Heagney, 2012, p. xii).

7 Conclusion

In this chapter, we will conclude our study, firstly by answering the research questions of this thesis, and then discussing the main contributions that our study has made for AB InBev. To this end, let us first quote back the research questions of this thesis:

1. **What are the critical factors that can have a significant impact on the successful implementation of projects at AB InBev?**

The results of our study showed that the factors which have the most impact on the successful implementation of projects were : Factor 3. Project Schedule Plan, Factor 8. Monitoring and Feedback, and Factor 9. Communication. Although the PIP tool was found to be very useful for the identification of the latter factors, it did not help us see the interconnections and influences that one factor may have on another. Indeed, after the in-depth interviews, we are inclined to think that the low scores on Monitoring and Communication are driven by the low performance in Project schedule. Having this in mind, the Gantt chart tool addressed the three factors with the lowest performance, but we highlighted the importance of developing a WBS as detailed as possible, with all the tasks or steps required for the completion of the project.

2. **What are the tools or techniques that can address these factors?**

While one can find several PM tools/techniques in the field of project management, in this study we have described four of the most effective and widely used tools/techniques in the field of project management. After comparing them, we selected the use of Gantt charts as being the most appropriate for AB InBev, not only does it address the above-

mentioned critical factors, but it also contributes to better collaboration and engagement from the project team members to strive for successful project implementation.

Therefore, by answering the questions above, this thesis made some major contributions and suggestions to AB InBev. First, it provided a suggested routine in order to use the PIP tool (Figure 6.1), which will lead to several findings and recommendations to the SC portfolio department. Indeed, once the performance of each of the 10 critical factors was identified, they were classified in one of the three categories (good, fair and critical performance). This was an attempt to draw the attention of the portfolio department to take immediate actions to increase those factors with poor performance.

Furthermore, the proposed PIP tool allows continuous improvement of the RFS process as it requests continuous evaluation of the action plan developed to increase the scores of the critical factors with the lowest performance. Indeed, a new action plan should be developed until a fair or average performance is reached. But it must not stop there, once the action plan succeed in moving the critical factors to a higher category, the tool suggests that the project manager must remain aware of next challenges and situations that could lead to problems in the performance of other factors, thus meaning that he must go back and complete the questionnaire of the PIP tool which was adapted to fit the situation of the company.

Finally, this study developed and proposed a practical Gantt chart tool, but before discussing the contributions that this chart will have on the project implementation management, it is worth remembering that the aim of this study was to help the SC portfolio management department to improve the effectiveness of the timely completion of projects. We thus placed an especial emphasis on the success of the project delivery and not on the success of projects in general. Indeed, it may happen that the outcome of a project was not well received by a market but its implementation was successfully managed, for instance a "promo" project requesting new bottles for limited edition that respected the timelines requested and delivered the project on time. In this manner, the Gantt chart proposed, aims to increase the performance of the below

critical factors and, in doing so, decrease the delay of completion of projects:

- Factor 3 - Project schedule/plan: By using the Gantt chart tool, the project manager will be encourage to clearly develop the WBS, define the timelines and the necessary dependencies between the project tasks, thus displaying important information to the project team. As they can easily see the progress of the project and understand when their action is needed, there could be less delay on the completion of their tasks, consequently, the project may suffer from less delay.

- Factor 8 - Monitoring and feedback: Once again, the simplicity and ease of use of the Gantt chart allows the project manager to easily monitor and follow up the tasks required to complete the project on time. Indeed, one main feature of Gantt charts is their ability to monitor and evaluate the progress of the project, by comparing the actual status of the project with what was scheduled. Doing this on a weekly or monthly basis, the project manager can take the necessary actions to correct any mistake or delay that the project may have, thus keeping the project on track. Furthermore, with the data collected on the Gantt chart, the project manager is also able to monitor the performance of project members and give feedbacks on things that need to be improved.

- Factor 9 - Communication: As the Gantt chart tool will be updated and saved on an open share folder, the project initiator, along with all the parties involved in the implementation of the project, will have access to see the status of the project and will know who is doing what.All the parties can therefore be aware of their own responsibilities but also of the responsibilities of others. This way, unnecessary emails requesting the status of the project can be avoided. Furthermore, as the whole project team gets to see the status of other's tasks, they can easily cooperate and share knowledge when a task is blocked (e.g. because of missing information). Consequently, by enhancing the visibility of the project's status, the roles and responsibility of the project team and the progress of their task, the communication and collaboration between the members of the project may increase significantly. The delay on the implementation of projects might therefore decrease as well.

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A Critical Process Matrix

TABLE A.1: Critical Process Matrix - Impact level (AB InBev, 2016b)

Critical Process Matrix	Impact Level					
	Quality	Cost	Delivery	Morale	Safety	Results A (Sum)
L3.1 Request for Feasibility Study	3	1	3	3	1	13
L3.2 RFS implementation	5	3	5	5	1	19
L3.3 Yearly portfolio optmization	1	1	3	3	1	9
L3.4 Portfolio Catalogue maintenance	5	1	3	1	1	11

TABLE A.2: Critical Process Matrix - Dissatisfaction level (AB InBev, 2016b)

Critical Process Matrix	Disatisfaction Level		Total Sum	Prioirty? (Y/N)
	Client Satisfaction	Results B (Sum)		
L3.1 Request for Feasibility Study	3	3	16	Y
L3.2 RFS implementation	5	5	24	Y
L3.3 Yearly portfolio optmization	3	3	12	N
L3.4 Portfolio Catalogue maintenance	3	3	14	N

B Critical Success Factors

Martin (1976)	- **Define goals** - Select project organizational philosophy - General **management support** - Organize and delegate authority - **Select project team** - Allocate sufficient Resources - Provide for **control** and information mechanisms - Require **planning** and review
Lock (1984)	- Make **project commitments known** - Project authority from top - Appoint **competent project manager** - Set up **communications** and procedures - Set up **control** mechanisms (schedules, etc.) - Progress meetings
Cleland and King (1983)	- Project summary - Operational concept - Top **management support** - Financial support - Logistic requirements - Facility support - Market intellligence (Who is the client?) - Project **schedule** - Executive development and **training of personnel** - **Manpower** and organization - Information and **communication channels** - Project review
Sayles and Chandler (1971)	- Project manager's competence - **Scheduling** - **Control systems** and responsibilites - **Monitoring** and feedback - Continuing involvement in the project
Baker, Murphy, Fisher (1983)	- **Clear goals** - Goals commitments of project team - On-site project manager - Adequate funding to completion - Adequate project **team capability** - Accurate initial cost estimates - Minimum start-up difficulties - **Planning and control** techniques - Task (vs. social) orientation - Absence of bureaucracy

C PIP Questionnaire

Respondent 1 :
Pack Change Manager

Project Implementation Profile (Strongly disagree = 1 , Neutral = 4; Strongly agree = 7)	SCORE
Factor 1: Mission	
The information on the RFS is clear for me to do my job	3
The objective of the RFS have been explained to all personnel affected by the project	2
The basic goal of the RFS's are made clear to all stakeholders	2
I am enthusiastic/engaged about the chances for success of the RFS	3
I am aware of and can identify the beneficial consequences to the organization of the success of an RFS	5
TOTAL	**15**
Factor 2: Top management support	
Upper management understand the amount of resources (CAPEX, time, manpower,etc) required to implement an RFS	2
Upper management will be responsive to my requests for additional resources, if the need arises	2
Upper management understand your role in the implementation process	5
I agree with upper management on the degree of my authority and responsibility for the project	5
Upper management shares responsibility with the project team for ensuring the project's success	2
TOTAL	**16**
Factor 3: Project schedule/plan	
We know which activities contain slack time or slack resources which can be utilized in other areas during emergencies	2
I have received a detailed plan for the completion of the RFS	1
There are contingency plans in case the project is off schedule or off budget	1
I have identified the important manpower skills required for successful project completion	3
We use an information system through which I can judge performance against schedule	2
TOTAL	**9**
Factor 4: Client consultation	
The initiators were given the opportunity to provide input early in the project development stage	5
The initiators of the RFS are kept informed of the project's progress	1
The value of the RFS has been discussed with the relevant stakeholders	2
The constraints of the RFS (legal, technical, etc.) has been discussed with the initiator	2
Initiator of an RFS know who to contact in case of questions or misunderstandings	1
TOTAL	**11**
Factor 5: Personnel	
Project team personnel understand their role on the project team	5
There is sufficient manpower to manage correctly the implementation of RFS's	3
The stakeholders involved in a project understand how their performance will be evaluated	3
All key stakeholders are correctly trained on how the RFS process works	2
The stakeholders involved in a project are committed to the success of the RFS	2
TOTAL	**15**

FIGURE C.1: Respondent 1 : Pack Change Manager

Factor 6: Technical tasks	
The technology that is being used to support the implementation and follow up of projects works well	2
The stakeholders involved in the project understand their specific tasks for the implementation of the RFS	3
We understand how this project may be integrated with other current projects	5
Specific tasks are well managed	5
The technology that is being used to support the project works well	2
TOTAL	**17**
Factor 7: Customer acceptance	
There is adequate documentation of the project to permit easy use by the clients (i.e. Portfolio Catalogue)	2
An adequate presentation of the implementation of the RFS has been presented	2
All key stakeholders are adequately informed of the project's progress so they can keep clients informed	2
Customer know who to contact when problems or questions arise	1
The project team is organized in a way so that client problems or questions can be feedback to the team for corrective actions	1
TOTAL	**8**
Factor 8 : Monitoring and feedbacks	
All important aspects of the project are monitored	2
Regular meetings to monitor project progress and improve the feedback to the project team are conducted	1
Actual progress is regularly compared with the project schedule (1st shipment date)	1
The results of project reviews are regularly shared with all project personnel who have impact upon budget and schedule	3
When the schedule requires revision, input is immediately solicited	2
TOTAL	**9**
Factor 9: Communication	
Is the goal and objectives of the project clearly communicated on the RFS tool?	2
When the 1st shipment is revised, the changes and the reasons for the changes are communicated to all key stakeholders	1
All departments affected by the project know how to make problems known to the project team	4
All the relevant stakeholders have the necessary information to cooperate in the implementation of the project	3
There exists well-defined channels for feedback when project implementation begins	3
TOTAL	**13**
Factor 10: Troubleshooting	
The project leader is not hesitant to enlist the aid of personnel not involved in the project in the event of problems	2
Brainstorming sessions are held to determine where problems are most likely to occur	2
In case of project difficulties, project team members known exactly where to go for assistance	2
I am confident that problems that arise can be solved completely	2
Immediate action is take when problems come to the project team's attention	2
TOTAL	**10**

FIGURE C.2: Respondent 1 : Pack Change Manager (continued)

Respondent 2 :
Gatekeeper

Project Implementation Profile (Strongly disagree = 1 , Neutral = 4; Strongly agree = 7)	SCORE
Factor 1: Mission	
The information on the RFS is clear for me to do my job	5
The objective of the RFS have been explained to all personnel affected by the project	4
The basic goal of the RFS's are made clear to all stakeholders	4
I am enthusiastic/engaged about the chances for success of the RFS	6
I am aware of and can identify the beneficial consequences to the organization of the success of an RFS	6
TOTAL	**25**
Factor 2: Top management support	
Upper management understand the amount of resources (CAPEX, time, manpower,etc) required to implement an RFS	5
Upper management will be responsive to my requests for additional resources, if the need arises	4
Upper management understand your role in the implementation process	5
I agree with upper management on the degree of my authority and responsibility for the project	4
Upper management shares responsibility with the project team for ensuring the project's success	5
TOTAL	**23**
Factor 3: Project schedule/plan	
We know which activities contain slack time or slack resources which can be utilized in other areas during emergencies	5
I have received a detailed plan for the completion of the RFS	4
There are contingency plans in case the project is off schedule or off budget	2
I have identified the important manpower skills required for successful project completion	5
We use an information system through which I can judge performance against schedule	2
TOTAL	**18**
Factor 4: Client consultation	
The initiators were given the opportunity to provide input early in the project development stage	4
The initiators of the RFS are kept informed of the project's progress	6
The value of the RFS has been discussed with the relevant stakeholders	5
The constraints of the RFS (legal, technical, etc.) has been discussed with the initiator	5
Initiator of an RFS know who to contact in case of questions or misunderstandings	5
TOTAL	**25**
Factor 5: Personnel	
Project team personnel understand their role on the project team	5
There is sufficient manpower to manage correctly the implementation of RFS's	5
The stakeholders involved in a project understand how their performance will be evaluated	5
All key stakeholders are correctly trained on how the RFS process works	5
The stakeholders involved in a project are committed to the success of the RFS	5
TOTAL	**25**

FIGURE C.3: Respondent 2 : Gatekeeper

Factor 6: Technical tasks	
The technology that is being used to support the implementation and follow up of projects works well	4
The stakeholders involved in the project understand their specific tasks for the implementation of the RFS	5
We understand how this project may be integrated with other current projects	3
Specific tasks are well managed	3
The technology that is being used to support the project works well	5
TOTAL	**20**
Factor 7: Customer acceptance	
There is adequate documentation of the project to permit easy use by the clients (i.e. Portfolio Catalogue)	5
An adequate presentation of the implementation of the RFS has been presented	5
All key stakeholders are adequately informed of the project's progress so they can keep clients informed	5
Customer know who to contact when problems or questions arise	5
The project team is organized in a way so that client problems or questions can be feedback to the team for corrective actions	5
TOTAL	**25**
Factor 8 : Monitoring and feedbacks	
All important aspects of the project are monitored	3
Regular meetings to monitor project progress and improve the feedback to the project team are conducted	2
Actual progress is regularly compared with the project schedule (1st shipment date)	4
The results of project reviews are regularly shared with all project personnel who have impact upon budget and schedule	4
When the schedule requires revision, input is immediately solicited	5
TOTAL	**18**
Factor 9: Communication	
Is the goal and objectives of the project clearly communicated on the RFS tool?	4
When the 1st shipment is revised, the changes and the reasons for the changes are communicated to all key stakeholders	3
All departments affected by the project know how to make problems known to the project team	4
All the relevant stakeholders have the necessary information to cooperate in the implementation of the project	4
There exists well-defined channels for feedback when project implementation begins	2
TOTAL	**17**
Factor 10: Troubleshooting	
The project leader is not hesitant to enlist the aid of personnel not involved in the project in the event of problems	5
Brainstorming sessions are held to determine where problems are most likely to occur	6
In case of project difficulties, project team members known exactly where to go for assistance	2
I am confident that problems that arise can be solved completely	2
Immediate action is take when problems come to the project team's attention	4
TOTAL	**19**

FIGURE C.4: Respondent 2 : Gatekeeper (continued)

Respondent : 3
Portfolio Expert

Project Implementation Profile (Strongly disagree = 1 , Neutral = 4; Strongly agree = 7)	SCORE
Factor 1: Mission	
The information on the RFS is clear for me to do my job	4
The objective of the RFS have been explained to all personnel affected by the project	4
The basic goal of the RFS's are made clear to all stakeholders	4
I am enthusiastic/engaged about the chances for success of the RFS	4
I am aware of and can identify the beneficial consequences to the organization of the success of an RFS	4
TOTAL	**20**
Factor 2: Top management support	
Upper management understand the amount of resources (CAPEX, time, manpower,etc) required to implement an RFS	2
Upper management will be responsive to my requests for additional resources, if the need arises	4
Upper management understand your role in the implementation process	1
I agree with upper management on the degree of my authority and responsibility for the project	3
Upper management shares responsibility with the project team for ensuring the project's success	4
TOTAL	**14**
Factor 3: Project schedule/plan	
We know which activities contain slack time or slack resources which can be utilized in other areas during emergencies	5
I have received a detailed plan for the completion of the RFS	4
There are contingency plans in case the project is off schedule or off budget	4
I have identified the important manpower skills required for successful project completion	4
We use an information system through which I can judge performance against schedule	3
TOTAL	**20**
Factor 4: Client consultation	
The initiators were given the opportunity to provide input early in the project development stage	7
The initiators of the RFS are kept informed of the project's progress	7
The value of the RFS has been discussed with the relevant stakeholders	5
The constraints of the RFS (legal, technical, etc.) has been discussed with the initiator	6
Initiator of an RFS know who to contact in case of questions or misunderstandings	3
TOTAL	**28**
Factor 5: Personnel	
Project team personnel understand their role on the project team	4
There is sufficient manpower to manage correctly the implementation of RFS's	2
The stakeholders involved in a project understand how their performance will be evaluated	3
All key stakeholders are correctly trained on how the RFS process works	2
The stakeholders involved in a project are committed to the success of the RFS	4
TOTAL	**15**

FIGURE C.5: Respondent 3 : Portfolio Expert

Factor 6: Technical tasks	
The technology that is being used to support the implementation and follow up of projects works well	1
The stakeholders involved in the project understand their specific tasks for the implementation of the RFS	5
We understand how this project may be integrated with other current projects	6
Specific tasks are well managed	4
The technology that is being used to support the project works well	5
TOTAL	**21**
Factor 7: Customer acceptance	
There is adequate documentation of the project to permit easy use by the clients (i.e. Portfolio Catalogue)	4
An adequate presentation of the implementation of the RFS has been presented	4
All key stakeholders are adequately informed of the project's progress so they can keep clients informed	3
Customer know who to contact when problems or questions arise	3
The project team is organized in a way so that client problems or questions can be feedback to the team for corrective actions	4
TOTAL	**18**
Factor 8 : Monitoring and feedbacks	
All important aspects of the project are monitored	3
Regular meetings to monitor project progress and improve the feedback to the project team are conducted	6
Actual progress is regularly compared with the project schedule (1st shipment date)	4
The results of project reviews are regularly shared with all project personnel who have impact upon budget and schedule	5
When the schedule requires revision, input is immediately solicited	4
TOTAL	**22**
Factor 9: Communication	
Is the goal and objectives of the project clearly communicated on the RFS tool?	2
When the 1st shipment is revised, the changes and the reasons for the changes are communicated to all key stakeholders	2
All departments affected by the project know how to make problems known to the project team	4
All the relevant stakeholders have the necessary information to cooperate in the implementation of the project	4
There exists well-defined channels for feedback when project implementation begins	5
TOTAL	**17**
Factor 10: Troubleshooting	
The project leader is not hesitant to enlist the aid of personnel not involved in the project in the event of problems	4
Brainstorming sessions are held to determine where problems are most likely to occur	4
In case of project difficulties, project team members known exactly where to go for assistance	4
I am confident that problems that arise can be solved completely	5
Immediate action is take when problems come to the project team's attention	5
TOTAL	**22**

FIGURE C.6: Respondent 3 : Portfolio Expert (continued)

D Transcript of interviews

D.1 Vetter, Nicole - Gatekeeper (Phone Interview, May 29, 2017)

1. Can you tell us a little about your function/role within the organization?

   I am one of the European gatekeepers, I am responsible for the German breweries as well as for the Belgium export business, this means that I manage all RFS's that are submitted for Germany and export Belgium.

2. How long have you been in this position?

   Already for 16 years, even though the role itself was not there in the past.

3. Can you explain me what does RFS means to you?

   Well, when I started to work for this company there was a similar process, called pack change process, and it was also about tracking the projects, and monitoring the evolution of the portfolio and the project management of the relaunches and new launches. There was always such a process. The reason why I am doing it for so long is that the job is very complex, you have to deal with almost every department in the company, you have to look at all the aspects for example legal, logistics, technical, quality, marketing, this makes it interesting. Even today I still get some RFS's where I learn something. It is amazing that we get to think about all this details, and it makes it interesting and challenging.

4. Is the objective of the RFS clear to you?

   Well sometimes yes, but initiator knows all or more details but he only enters draft data not the detail data in the RFS tool and this is due to the fact that they are not aware that we need this input for the implementation, people don't know that the RFS tool can also an implementing document and not only an approval document.

5. Do you see the result of a project affecting other projects?

   Yes, I will say that is almost 60% of the cases, that is also the reason why we need this gatekeeper position, for example if someone in logistics wants to implement a project and there is someone on the technical department doing something and they both just see their project and asked for their implementation, but it is the role of the gatekeeper so that everything comes together. We see the full picture of what is going on in the company, and every department, so for example if legal is planning to add requirements on an SKU, and at the same time logistics is planning to change the palletization of this SKU and the technical department is changing the die-cut of this SKU, and all this comes together, and of course is reasonable to harmonize as much as possible so that we don't start again and again, and things can be combine. The gatekeeper role works as a centralized position that has the helicopter view and knows what is going on, someone that can interact with the different department. There is a lot of examples, today we have a request from the pack change team and two days later we have another request form procurement concerning the same material. It is the role of the gatekeeper so as the implementation of these projects happen as smooth as possible but also as reasonable as possible, if something doesn't makes sense we should not expend further time on it.

6. Can you identify consequences to the organization when a project is not approved?

   Well, when a project is not approved, we can always challenge this decision, we called “escalate” an RFS, a no is not a final no. If you really think that a project is really worth considering then you maybe have to look for better arguments or more detail and then to go to your line manager and address directly to him the project and then again to the VP’s and then maybe more in details why you cannot accept a no.

7. Do you think that upper management shares responsibility with the project team for ensuring project’s success?

   Hard to say, they take a look from a different aspect, they know what is going on with regards to our KPI’s or where we are with the budget, for example, the number of SKU’s increased and they know that our KPI’s are getting worst and worst because we have more change over time than fillings time, this is something that they know, and based on this knowledge they start rejecting the creation of new SKU’s, in this case then I think yes , they share responsibility. Because looking from their perspective it is reasonable for them to reject this kind of RFS’s even though the SKU meets the hurdle rates and the feasibility analysis is guarantee. Of course, they have a bigger picture of what is going on in the company, and this why I will say that they share the same responsibility as we do.

8. To what extent do you have the authority/responsibility towards the approval/ rejection/ implementation of RFS’s?

   Well, we have rules and standards, for example hurdle rates, in which it is said that a new SKU should have a certain volume per year and certain MACO and if this requirements are not met, then you can say no. But then again the initiator will challenge you as a gatekeeper saying that it is a promo, seasonal SKU or that it is really needed, they sometimes "escalate" it to some VP’s and then we are

asked to present it to the approval meeting and then it is the VP's who decide. With regard to other RFS's, we can say no when we see that the RFS is jeopardising another one or that we find out during our feasibility study that it is not possible or if there is missing information then of course we can reject RFS's. But every time, they push and asked us to present this RFS to the VP's anyway. Also for artwork changes, we also have this rule, that for example there is a market selling a low volume per year, and they asked us to change something on the artwork. Then for this low volume, 50hl, then it is not reasonable to start the process, is a lot of work behind an artwork change, not only cost for paying the design agency but also of the time for all the people that are involved, the people on the warehouse that have to block stock, make sure that the new materials are in, the BOM that have to be adapted, and so on. We say that if the volume is too small, then it absolutely not reasonable to say to proceed, adapting the lines for such a small volume makes no sense. And most of initiators accept it, because they know that the volume is actually too small to do any changes.

9. Does the plan makes sense, is it workable?

   I think for most of the RFS's, initiator just put a first shipment date based on feeling. I don't think all the 1st shipment dates are the real requested one. Most of them know that if it is an artwork change and with a soft change, meaning the depletion of stock, it could take months but it could also be next year. This is something they don't know, we don't know. So they enter any date, of course they want the change as soon as possible however, they don't know how long the stock will last. So there are RFS's where you cannot really define the 1st shipment date, but then there are others that submit the real 1st shipment date or the real launch date. But I will say that 80% of the RFS's are submitted with a 1st shipment date which is not the real one.

10. Do you think all key stakeholders of an RFS are kept informed of the project's progress? When the 1st shipment date change for example

To be honest, the 1st shipment date written on the RFS tool, for me is not relevant, because only our feasibility analysis shows what is possible, we have to look at the stock, we have to look at the design process, how fast can we get the new artwork, there are market where it takes a long time to have the artwork approved, because. Based on what we have on stock and till when are we covered, and based on when can we receive the new artwork, then we can define a first shipment date. But this is part of the implementation and the ongoing communication, is not that after the feasibility analysis and send out the briefing that our job is done. We need to manage the RFS until the implementation, that is why the first shipment date, for me, is just to get an idea on how urgent is the request. If it is a soft change it implies that they are "fine" whenever we are ready with the new artwork, only within the feasibility analysis and the implementation process, we get closer to the point where we know when the 1st shiptment date could be.

11. Initiator know who to contact in case of questions or misunderstandings at all phases of the implementation process?

    Initiators should only contact the gatekeeper, the gatekeeper's sees the whole picture, she knows what is going on with all the discussions that are ongoing, she has the experienced and the knowledge. If initiator only sees his request, then it might not see the need of other departments. This is what I noticed in the other regions, where not all the discussions are going via the gatekeeper. Initiators should not bypass the gatekeeper, all the communication should go via the gatekeeper. Gatekeepers are the spiders in the net, we are on the middle, and we spread the info that is coming in to all the stakeholders. As said, gatekeeper has the full picture, helicopter view, knowing what is going on, knowing why are we doing what and by when. Then to make a decision based on this analyses (we need to adapt the BOM, we have to create new SKU codes, new material codes). SNP only plan the filling of the SKU's they don't care how much materials we have on stock, MRP place the order for materials, they don't care by when

we need to produce the new SKU. We need to bring them together, tell MRP that they need to stop ordering the old material, and start placing orders for new SKU by another date.

12. Do you feel the limitations of an RFS are discussed with initiator before approval?

    Well the root cause of limitations, is that initiator are sometimes not clear with their request, I am doing this job for a long time, and any kind of limitations or constraints is learned with time. But most of the cases is because initiators are not very clear in explaining what they really need. There is no training for gatekeepers where we can see this limitations, details upfront, however, if the RFS completeness will be better than such limitations will be reduced. But I said, this is a very complex business, we have a lot of different markets, different requirements, legal requirements, and technical requirements. That is why we need the RFS process, and that is why we, us gatekeepers need to have the helicopter view, and give the right guidelines, we need to understand everything, and with our knowledge we have to share it with stakeholders but in a consolidated and cascading way. So that they can get the pieces to do their job.

13. Do key stakeholders understand the importance of their role/participation on the project?

    Not always, but again gatekeepers needs to tell them what the project is about and what the request is about, again is all about communication. Once they understand the project, they understand the importance of their role. Gatekeeper needs to explain them what we expect from them. It is very important to come together and update each other, but also inform each other, we all receive a lot of emails, and a lot of requests, and each RFS is not the main business. For example, for SNP, their main business is to plan the filing lines, they don't have the time to open every RFS and to read it through and to understand, and even if an RFS is very clear it can be still too complex to bring it into words in such a documents (RFS tool), it is always good to have an open discussion where questions can be

raised and answers can be found for everyone, so that everyone can understand their role on the RFS process.

14. Do you think the technology that is being used to support the project implementation works well?

    For me the RFS tool is not a working document, is a tool to explain the request, we fill all the data that we have, (MACO, volume, financial impact) we send it to approval, and then I don't touch this tool anymore, because everything else happens in parallel, in the pack change meeting and in my daily communication with stakeholders. During the implementation process we often turn into different directions, and here again we see the importance of gatekeeper's role, they need to monitor, guide and redesing what needs to be done. Sometimes during the implementation process, we find out that it is not possible anymore, and it is not to blame the feasibility analysis, but maybe another RFS was submitted in the meantime, for example banning the use of a certain pallet for a certain market. It can be that during the implementation we turn into a different direction and here again that is the reason why we need the gatekeeper role, because there must be someone monitoring and guiding and redesign what has to be done. Communication is very important, but also to receive information, to understand, to consolidate them and then to share them with the stakeholders again.

15. What do you think about a regularly briefing or written status reports?

    Well the understanding of the briefing report, comes from the definition of the gatekeeper role, as I said, we are the spider of the red and is our role to keep everyone on track, and at the same time is their responsibility to keep me on track, and it really took some time so that everyone could understand that this role takes care, and makes sure that the implementation is running and if there is a change in the scope due to another RFS or if there is a delay on the process that still, it is the gatekeeper that takes care and keep inform all the stakeholders involved and redirect the RFS.

D.2 Correa, Thomas - Demand Planner (Personal Interview, May 31, 2017)

1. Can you tell me a little about your role within the organization?

   I am Demand Planner for Belgium and Luxembourg, I am responsible for the demand management, I give my forecast for the consumption of beers for the next weeks, months and years for our entire portfolio for BE and LUX, in order to do that I need to communicate with sales and marketing and trade marketing, once I have a "base" for our sales history and inputs from sales, marketing and trade marketing, I can then enrich my forecast and put it on the system and then the production plan will be able to see it and the transform it in production.

2. How long have you been in this position?

   One year and seven months

3. Can you explain me what does RFS means to you?

   The RFS process is a process for implementation of new pack packaging or to launch new products, we start with an initiator that has the idea or who is requesting the change then there is some steps for validation, one of this steps or gates, is the validation with the VP's, once they approve it, then we can put it in operational.

4. How do you understand the role of GK for the implementation of RFS?

   The gatekeeper is a project manager, or project coordinator. The gatekeeper is responsible to manage and coordinate that all the steps will be done, also is the one that is responsible in the approval of all the different gates of the RFS process.

5. Have you submitted an RFS? What kind of problems do you think you have?

   No, I never submitted an RFS yet.

6. When you have to change the forecast of an SKU due to an RFS, do you open the RFS tool to read the goals of the RFS?

   I open the RFS tool, because sometimes I just received and ACCF (Article creation communication form), well just to explain you... demand planning is involved in big projects let say, but there is also some small projects, for example when we change the pack mat of a product and we need a new code, in this times we are not fully involved in the project cause demand hasn't changed. Sometimes I receive the ACCF and I have no clue what is it about, so I enter to the RFS tool and then I see what is going on and why did I receive this new code, because I am responsible for the alignment with sales, and I cannot just take the new code put the forecast and then do nothing else, I have to make sure that sales are aware, because they need to communicate this change to the customer.

7. When you enter to the RFS tool, do you think the objective of the RFS is clear?

   Sometimes yes, but sometimes no. They just put something like "change of pack mat" but OK why? Or for which purpose.... I think this is maybe where some improvement can be done for the RFS, to try to standardize at least the description, the way that initiator should submit RFS.

8. How a cancelled project does affects your department?

   Well, it depends when it is cancelled because it is not approve by the VP's, for me there is no impact because there is no new code for example. However, sometimes for example for cans with special supplier, the project was cancelled after approval, because supplier was not able to deliver the cans but the forecast was already registered, so I had to remove the forecast and put it back to the old SKU, so sometimes it can impact and sometimes no.

9. Do you feel that upper management is responsive to the request of the Gatekeepers (i.e for additional resources) if the needs arises?

Well, for my side yes, my line manager is supportive, but as I told you I am not initiator, so I never really need the support for high level management for a project that is not mine to be approved. However, I support sales and sales when they have some issues, yes they always have support and feedbacks, they are very well supported by high level, but well it is another case, sales director and supply director. Sales directors are more responsive.

10. To what extent do you have the responsibility for the implementation of RFS's?

    My role is very important, if I don't put forecast there is no filling and there is no product, and yes I know that my input is needed to move to the next step. But well, that is for hard changes, when it is only soft changes, for example just packaging change, then demand planners are not that important, because we don't have to switch the volume to another SKU because the volume itself didn't change it is only a BOM adaptation so no need for an action of demand planner. But mostly, I would say 60 or 70

11. Do you think the 1st shipment date make sense, does the plan makes sense, is it workable?

    I think the 1st shipment date is very important input especially for demand planner, but it is never trustful. First of all, I have no clue who put this delivery date, second I think the owner of this information should be SNP, they are the ones that must say when it is going to be the 1st shipment, because they have the full view they are responsible for the network plan, so they see the forecast and they see how much we have on stock, and if we have more stock then the forecast for that SKU cannot start for that "date they asked", so we have to postpone it. So I think that we should change the name on the RFS tool, to "1st shipment estimation date" or we should requested upfront to SNP. For the moment, I never trust this date, I always ask SNP or if I don't have the information from SNP I try to confirm with the gatekeeper, to be sure about the date, to double check,

sometimes is next week, or even one time I look to an RFS and the 1st shipment date was 2 weeks ago.

12. For you is it clear the key stakeholders who must support an RFS?

    Well besides the gatekeeper, I remember when I join the company it was not clear for example who was responsible for what, for example for logistics tasks, pallets dimensions, transport test, and so on. Sometimes I get asked: Thomas who is responsible for that? and I had no clue, but now on the RFS tool, we added a tab so that they can add who is responsible for what, and then it was more clear.

13. Have you ever seen when a key stakeholders was not involved in a project and thus issues were found during the implementation of projects?

    No, not really

14. Do you think there is sufficient manpower (we have the necessary people) to manage correctly the implementation of RFS's?

    Well... no. I mean not in terms of other department, I think in the RFS team there is a lack of people.

15. Do you think all departments are correctly trained on how the RFS process works?

    Yes, I think gatekeeper are doing a good job, making everyone aware of the process and training them every time a new way of working appears.

16. Do you feel key stakeholders understand what and when their tasks are needed during the implementation of projects?

    I can tell you about Sales, DP, SNP and MRP, I think for us is very clear when and what we have to do. Because we receive the ACCF, then it is very clear, and I also know that if I don't put the forecast on time then SNP will not be able to plan the production and MRP will not be able to order the materials.

17. Is the first shipment date accepted/negotiate with key stakeholders to meet the expectations of initiator?

    Well again it is mainly responsibility of SNP, but it is always communicated with initiator.

18. How well do you think the RFS's are monitored?

    Well there is the PCC meeting, but to be honest with you it was a long time since I join a PCC meeting, but I will say that my biggest advice or suggestion is maybe to change the format of this meeting, because it is not interesting to everybody, for example I am responsible for BE and Lux, and during the meeting we discuss about UK RFS's, products for RUK, Italy. But I will not stay there for one hour to discuss about projects that are not interested, if you could change the format of this meeting maybe have the right people for the right talks then I think it will be much more efficient. Now, for example, I try to join the PCC meeting, but I have other meetings, when I see a very important meeting and PCC meeting then I don't hesitate I will chose the other meeting because maybe my input will be much needed.

19. Do you feel that your work is often evaluated or asses, how well is your performance for the implementation of RFS's?

    Well, I cannot say yes, I never receive any feedback of gatekeeper or other department about my performance within the RFS process.

20. Do you feel that communication across the project team members is good enough?
    Well not for now, the main tool of communication is via emails, and communicating via email can be hard, a lot of stakeholders are involved and with so many mails on a project it is hard to follow and to know when something is addressed to you.

D.3 Cerjan, Richard - Portfolio Expert (Phone Interview, Jun 1, 2017)

1. Can you please tell us a little about your function/role within the organization?

   I am portfolio expert, I am support the team of portfolio and master data, which was merged on 2015, my role is to support portfolio and master data in terms of technical and process software, so any kind of issues guys have raising RFS's or material creation or any issue, I am here to help them, plus I am a backup for Vincent (current master data specialist) and backup for the control checks for the master data team.

2. How long have you been in this position?

   In this role, I am since September 2015

3. Can you explain me what does RFS process means to you?

   It is the request for feasibility study, this is a process that stands by the portfolio team if a new SKU, that we want to create or adapt, if this is going to bring a desired volume in production , and MACO and pay back, based on this the feasibility study is done and after that the decision is taken, if we produce such an SKU or not.

4. Do you think there is a detailed plan used for the completion of a project? Do you see that the RFS tool is affecting the implementation of projects?

   The RFS tool has a functionality for the implementation part, which is not used, but if it was used, then of course we could have enough visibility, because by using this functionality, there is an automatic mail sent to each stakeholder, announcing that he needs to start his action, and once all the actions are completed then the initiator is also informed that the RFS is implemented, but since several years, this functionality is not used, the project schedule is suffering and

now I think is more work for the gatekeepers, because they need to put on the implemented manual status and change it every time, because if the actions of stakeholder is not capture on the tool and only on the emails then it is only visible for those people that are receiving those emails, but if a third person wants to know the status of the project it cannot be seen it anymore on the tool.

5. Do you think initiator knows who to contact in case of questions or misunderstandings at all phases of the implementation process?

   Initiator can only see his own RFS, so if I am an initiator I can follow up my own RFS on the RFS tool, if the implementation functionality is used. But, I cannot see other RFS's, and the main point of contact is, and should be its corresponding gatekeeper, any problem initiators have they should reach the gatekeeper. The problem with most of the people, is that they don't even read Help functionalities existing on the tool and expect the gatekeeper to correct any mistake they might have written.

6. Do you think there is sufficient manpower (we have the necessary people) to manage correctly the implementation of RFS's?

   Well, you are now leaving, and you are supporting the UK zone, since you leave there will be nobody for UK, there is a new gatekeeper for Russia, and since it is a new process for them, there are not so many RFS raised and therefore she also takes care for DGO's RFS's but I think that at certain point of time there should be an extra person dealing only with DGO's, because this is export and import, not only export. And for GE, Nicole is there and since she is there for so many years she is performing very well. And for the rest, I think is more a question for the gatekeepers to see if they feel that they have the good work balance or not. But I think it also depends on how the demand is growing, for example if BENEFRLX, the volume of RFS is growing, Elise (gatekeeper BENEFRLX) is the one suffering the most of it, because Belgium has the most promotions ever between all countries,

7. Do you think all departments are correctly trained on how the RFS process works?

   I have never participated on this trainings, so I cannot judge if they are good enough or not, I can only judge the video, which is like a tutorial on how to raise an RFS, that video, to me should be immediately deleted from the tool, it is absolutely not suitable for anybody to help them, it needs to be done in a professional way, not the way it was recorder. But I think, that a training will defiantly help stakeholders to be more involved, because not every single person has experienced with this tool, and basically have access to raise an RFS, from the VP's to the operator on the filling line, and the system knowledge is of course different, so such training can only be a plus for everybody.

8. Do you think the technology that is being used to support the project implementation works well?

   Well, the follow up of RFS's can be done directly on the RFS tool, with the implementation function, with this we can send a reminder for each stakeholder if their task is not done, the functionality is there, but this is not used. There are a lot of functionalities on the tool which nobody is using it anymore, now maybe because it is not doing what is requested anymore, they are using excels, and access files, rather than investing money again to improve the tool. But the main problem is that the responsive of the RFS tool is very poor, working with the tool is not as it should be, according to the design, with respect to the info which is in the tool, it was design somewhere in 2014 and the requirement were done at that time, and as I am not a gatekeeper I cannot really consider if this is all the necessary info, we are now using some fields for different purposes than they were build, so I think the tool desperately needs a rebuilding, completely. Because the demand is changing almost every year, and the tool needs to be flexible and it is not the case, the tool is not flexible enough. Also, since we have more and more RFS's, growing and growing, data and pictures are coming in, but when you click on those file, then you need to wait 30 second and in that case of course

nobody wants to use it anymore. They need to be revised the CAPEX, otherwise the tool will crush in a couple of months. About the MS project software, this is something that could be used, but this tool is an individual tool, not everybody will have access to it, because not everybody will have a license, and it will be expensive to give a license to all initiators, since everybody in this company can be an initiator.

9. Do you think initiatros are adequately informed of the project's progress so that they can, if needed, give more inputs?

   Well, initiator can always log in on the tool and check the RFS, they can see the status, they can see the comments, and they can see the approval date. But since the implementation tab is not working, they cannot see anything after the approval, they cannot see in which step we are on the implementation process.

10. How well do you think the RFS's are monitor?

    Well, it is always the same story, the monitoring of project is not well manage for the moment, because initiators submit an RFS but do not respect the process, so if someone escalates then the whole process get mess, they creates extra work, then our KPI is affected and it creates delay to everyone.

11. Do you think the process of RFS is well understood?

    I think they don't know, the common think of people is: I raised and RFS and then gatekeepers will manage everything. But it is not true, it is not the gatekeeper that should fill all the data on the RFS tool. Gatekeeper is the coordinator, the initiator is the one who should take responsibility of the project.

12. Do you see all the relevant stakeholders having the necessary information to cooperate in the implementation of the project?

    Well, for SNP and DP there is the ACCF, but for other I will come back again to the implementation tab on the RFS tool, because if it was used then each click on

the tool informs the next stakeholders to perform its task, but well it is not used for a while, and then stakeholders can't have the info they need on time, they don't have the info in an automatically way

13. Is there an assessment tool or document, where we can assess the performance of the stakeholders involved in the project?

    There was the complexity file done last year, that attempt to measure the complexity of the RFS's, based on involvement of each stakeholder, time and other criteria. Based on the type of RFS and everything the tool calculate the complexity per RFS type. This file exists but nobody is using it, again something that nobody is using. That is how end all the developments in this company, you do something and then nobody is using it. We asked gatekeepers to put after each RFS some information on the tool, so that we after the data gathered and some statistical analysis, the complexity of the project could be found. But it was never used, it was also because some members of the team moved and this needed more work and they were already with too much workload, but to be honest this doesn't take much long, and we were not asking to put a lot of information.

D.4 Petrzlova, Alena – MD/BOM specialist (Phone Interview, Jun 6, 2017)

1. Can you please tell me a little about your role within the organization?

   I am the BOM and MD specialist, I checked the RFS's and create or update the BOM for new SKU's or for any article modification.

2. How long have you been in this position?

   For 9 months

3. Can you explain me what does RFS means to you or how your role is involved in the process?

   I read the RFS and see if all the information, which I need is present, and if there is all the necessary input; then I can start the creation, adapt the BOM of a new SKU, or open an SKU to a new market or creation of new materials.

4. Is the goal or mission of the RFS's clear to you?

   I will say that some of the RFS's are clear, but often the information is missing and sometimes the information is wrong.

5. Have you submitted an RFS? What kind of problems do you think you have?

   No, never

6. How does a success or canceled project affects your department?

   Sometimes, I am not even informed that the RFS was canceled and then there will be problems in the BOM (i.e new SKU's created that will never be used), also I will say that is mainly a waste of time, because it really takes time to create a BOM and put all the necessary details.

7. Do you feel that stakeholders are engaged in the implementation of projects ? No, not so much, I don't think they care enough.

8. Do you feel that upper management is responsive the request of the Gatekeepers (i.e for additional resources) if the needs arises?

   I think yes, I think gatekeepers are more in contact with the VP's and they can provide the support that they need or redirecting with the right person to contact.

9. Do you think the 1st shipment date make sense, does the plan makes sense, is it workable?

   No, I don't remember any case when the 1st shipment date was correct. It is just some estimation, sometimes the RFS is approved after the 1st shipment date, so

for example the RFS is requested for 1st January, but it is approved only in March, and it happens a lot. Also, the better the 1st shipment date is the better it is for everbody, because I have to get the data ready for procurement to be able to make the contract.

10. Do you think all departments are correctly trained on how the RFS process works ?

    Not always I think, from my perspective I think sometimes stakeholders don't really get how the process works, and that is why data is missing in the RFS tool, they sometimes submit RFS's without important data, they say that they will provide it later, but they don't understand that the SKU cannot be setup without that information. So I think that some of them miss this information of how the process works ?

11. Do you think the trainning of the RFS is well done ?

    Yes, I think it was good the excel file presented last week, so that initiators can know exactly which date to fill in on the RFS tool, I think it can help a lot, because sometimes they don't even realize what is needed, so if they can have this overview, I think it will really help with the work. And then it will be easy for us, because we will have all the information needed.

12. Do you think the technology that is being used to support the project implementation works well?

    Well I about the RFS tool, it is slaw, sometimes I cannot even open some documents, the tool is not always working properly.

13. Do you think that the projects are well monitored ?

    I think the PCC meeting is very helpful for this, especially when all the people are there. I think is one of the best meetings to get all the important info. You can easily asked other members for any concern or issue and get answers right away,

you don't have to wait another week, before you get it, But unfortunately, not all the people who must be there assist this meeting regularly, at least if they cannot joint hey should have some backups. At least someone who understand the RFS or who knows where to find the information or just to write some notes and then come back to them.

14. Do you see all the relevant stakeholders having the necessary information to co-operate in the implementation of the project?

    No, I think there should be somehow a contact list with the right people. Sometimes initiators dont know who to contact when raising the RFS, for example they don't know where an SKU will be produced, if an SKU is produced in another plant than the one they thought i twill change compleatly its RFS. I think that having a contact list can help them.

D.5 Sablon, Vincent - MD specialist (Personal Interview, May 30, 2017)

1. Can you please tell me a little about your role within the organization?

    I am in the company for almost 25 years. First I was hired here as a consultant, for a couple of years and then they offered me a contract. I start my career at the ICT department, as I have a degree in informatics and an additional degree on logistics. After 2 or 3 years I went out of ICT, I went to purchasing or sourcing called at that time, working as a business analytic. Then, I join the department of logistics, and when the demand planner at that time started developing the GERP system, they asked for a Master Data manager, I accepted this role and since then I am here.

2. How long have you been in this position?

    It is already 9 years.

3. Do you think the objective of the RFS are clear enough for all stakeholders?

   The aim of the RFS process is to have a first step that will start with a request, this should be very clear before we go in execution to change the product. Some of the request have clear goal, some no. I think it depends on so many things, you have request base on existing projects, for instance this year you do a promo 5+1 stella, and next year you do it for jupiller, this is very similar, you already know maybe the impacts, and even for this request is the same person from marketing who is dealing with all this requests, so for the next time, he will come with all the necessary info, because he/she is experienced with this request.

4. How does a success or cancelled project affects your department?

   I think when an RFS is well prepared, it can be smoothly executed, and then it should not be cancelled. But when it does, I'd say that is a waste of time and energy. The stage when it is cancelled it is also important. Between the RFS process and the MD process, we always asked most or all the information, before start. If you don't have all the info, or something is missing, then we don't start. Most of the time we don't have so many cases where the RFS are cancelled.

5. Do you feel that upper management is responsive i.e for additional resources, if the needs arises?

   Well, together MD and RFS process, is not really executional, but there is a financial impact that these processes can generate. So, upper management want to know what is happening with the process of course. But responsive, when it comes to the people, resources we need to reach to get the RFS implemented that is maybe another story, because VP's have maybe other things to do, other priorities. I think that it is important that within the RFS process, the request are correctly structure, in some categories, is our job to optimize their time of work.

6. Do you think there is a detailed plan used for the completion of a project?

I don't know really the details on this, the only thing that I am convinced is that we can define categories and subcategories in RFS's, as I said, to have the most difficult which are innovation, new flows, new SKU's, and then giving a timing per each category. Also I am convinced that some of the RFS's do not need to go via the approval of VP's, because it is pure executional.

7. Do you think projects plan have enough slack time to allow for technical or time overruns? No, because there is no clear prioritization, we say that a prioritization is on 1st shipment dates but I don't think that this is always what should act. To make enough slack time, it is only interesting if it is doable, it is a matter of priorities, if you have today 5 innovation projects running, and we are running behind schedule for the last project, then we tend to drop those projects for that project that is running late. We should instead, see which project is adding more value to the company, this should be then our prioritization. Factor 4 - Client consultation

8. For you is it clear the key people who must support an RFS?

   The thing is that the intervention or support of stakeholders on the RFS process, is only part of their job, there is no target or performance that they should reach, and everything relies on the RFS process, so it becomes difficult to find the people who must support a specific project. I don't say that the people are not involved in the process, but the focus is different if it is in your target, affecting your KPI's. The moment it is not some of your main activities or priorities, you will not put the same focus or same energy.

9. Do you think there is sufficient manpower (we have the necessary people) to manage correctly the implementation of RFS's?

   I think now is ok with the RFS amount. But in January, February the number of RFS raise, and I think that in that moment we are not enough people, or you need to work outside hours and so on. Also, what we have on the RFS process, is that

we are in constant maintenance, we are busy to review the process, all that extra work gives the feel that we are not enough people on the team,

10. Do you think all departments understand their role and responsibilities on the project team?

    No, I think we should review this. The RFS process had the role of coordination the supply chain planning, not further than this, but I see this evolve in much more responsibilities, but this was never "officialised", and then I think that the people who were doing the role of coordinating this projects were not anymore ready for the task that were on the table. Now we are starting to make clear who has the responsibility of what. Because we took on our department a lot of responsibilities, now we need to makes this more clearly, or we need to upgrade the profile of the people who are coming in to the team. We need to know what is being produced on X filling line, and so on, that was not the case before.

11. What do you think about the communication system used for the implementation of RFS's?

    I think we can do more on the RFS tool, and avoid emails, if we can do some upgrade on the tool, we can avoid so many unnecessary mails.

D.6 Diane Scott – Pack Change Manager (Phone Interview, May 31, 2017)

1. Can you please tell me a little about your role within the organization?

   The pack change team are responsible for the design, and print process. I am responsible for giving feedbacks on initial design, we advise on printability, so that we can highlight any potential issues but also any opportunities that we might incorporate in the design that is coming. That is our initial input, and then

when the design is handed over, we pick all the elements that are required to proceed with the artwork.

2. Can you explain me what does RFS means to you?

   So, for any new artwork, we would need a new material reference, sometimes there will be new bar-codes, so for new projects we will request data from the MD team. The RFS process is important because is the start of the approval within the business to proceed with new artwork, so that all the stakeholders involved in implementing that are part of that RFS process.

3. Do you see the result of a project affecting other project/projects overlapping?

   Yes, I have seen this kind of issues. But I think that is why it is important of having the right stakeholders on the call during the PCC meeting. If we take for example, some member of the procurement team to submit RFS for a new supplier, to change for example old corrugated cartons, but without knowing that those pack are going through a big VBI change already or a redesign, they need to be on the PCC meetings so that those type of projects can be pick up and that they understand what is coming. Again I think a lot of this initiators work in isolation.

4. Do you feel that upper management is responsive to the request of the project manager (i.e for additional resources) if the needs arises?

   No, I think because they don't actually know the process, I think they know what's the role of an RFS gatekeeper, to check this projects, and I think the gatekeepers get a lot of negativity from upper management, thinking that gatekeepers are holding the process, but actually I think that they should understand the process and all what is involved, and then they will give more support.

5. Do you think there is a detailed plan used for the completion of a project?

I think there are timing to guide, but each project submitted as an RFS is so different, is very hard to give a very detail timing plan, when it would depend on what it will require for that project. For example if they want to do a label change it will be an artwork change easy, but if they want to do a whole VBI change, then those timings are completely different. A detail plan, will depend in the complexity of the project that is involved. I think initiator should have more knowledge, at least a guide of the time it takes to implement an RFS.

6. Do you think the 1st shipment date make sense, does the plan makes sense, is it workable?

   I don't think is always realistic, I am not part behind what drives this time, from my understanding the timing are build in the back system of the RFS tool, but what happen is that as an initiator, they would put a day that they would like even though it is not possible. The people who initiates this projects, because they are not aware of the process, they don't have any concept on what is involved, not only the artwork, but also in setting up new SKU, setting up the forecast, and the planning, they just don't have any concept in the time involved and the steps involved in setting everything.

7. Do you think that key stakeholders are always informed of the process of the project?

   No, I don't think so, I think the one thing within the RFS process is the lack of communication, not only to initiator, but also within stakeholders, I don't think is very clear at which stage we are within each project. From an RFS point of view, there used to be triggers that would send you an email to inform you at which stage we are, that seems to not be happening anymore, and maybe it is because the system is falling down. But I don't believe that everybody who is responsible for something knows at which stage the project is, and when their actions is needed, until you receive four or five mails, or someone is chasing you. I think another problem is that we all seem to work in solo which is not an

effective way for us to be working, and we only seems to shout and chase when we are being chase.

8. Do you think initiator knows who to contact in case of questions or misunderstandings at all phases of the implementation process?

   If I am really honest, I think is even difficult for us to know who to contact , we don't know who we should be speaking to in procurement or for set ups, we don't get involved on that , but we do get some questions sometimes, I think especially in the UK because we know a lot of who the initiators are, because the brand team or sales team they do come quite often to myself and ask , who should they be speaking to , where are we with this project, . So I don't think they know who should they be speaking to for the different processes.

9. Do you think there is sufficient manpower to manage correctly the implementation of RFS's?

   I guess, from my point of view in term of an RFS gatekeeper, that to us that is an extremely important job within the business, and we think you have been doing a fantastic job, is probably the first time in a long time that we have that support, but I do think people are stretch in their roles. And somebody to do the gatekeeper role as effectively as has been done in the past, and by that I mean looking at the feasibility for each project, and upfront contacting each of the cross functional departments, to check every details, is difficult to find. And I think is probably the same across other departments, whether you are looking at master data or procurement, you just had to see the emails, people chasing for things, they are not just sitting there waiting for an RFS to be approved, they are doing another job on top of that, so I think is stretch for everybody to be managing the amount of projects that we see.

10. Do you think all departments are correctly trained on how the RFS process works?

I think there is two parts, I think the first is the understanding of the steps that are involved in the RFS process, from start to finish, and who is responsible for each element, I also think that a big piece is understanding the role of the gate-keepers as part of a specific project. And also make clear what are the role and responsibilities of initiators in managing a project. Because, now I think that their understanding is that as soon as they submitted an RFS, their role is done, and the next stage when they will get involved is when it is implemented and they are selling it to the customer. But that is obviously not their role, they role is to lead the project, and they should be involved at each stage of the process, to understand more what is going on. At the end of the day is up to the initiator to make sure that the project is deliver on time, they cannot let all the other stakeholders to manage their project for them

11. Do you feel key stakeholders understand what and when their tasks are needed during the implementation of projects?

    Well, I think there is always quite a lot of new people, they may not know the business, some of them may not always know what they are supposed to do, but that also goes back to understanding which stage of the project they are responsible for, and when it needs to be done and implemented, and I have been on the business for quite a lot time, so I do get ask a lot of questions, well that might not necessarily be right, but that is why they are not sure about who else to go and asked those questions.

12. Do we take advantage of the regular meetings to correctly monitor the status of projects?

    I think for the last couple of weeks it's been working extremely well, I think that the PCC meeting really benefit the monitoring of RFS's, but I think that what we struggle is having the right people on the meeting, I am not suggested initiators because that would be endless, but the stakeholders who are involved in each step of the process, need to be involved in that call, and I think that they rather

don't have the time, or they think that it is not necessary, maybe they don't see the advantage of taking part of that meeting. I think is a really important meeting that can stop all those emails and that extra work.

13. How well is the communication flow?

    Well I think is clear what the RFS process is there to do, but I am not sure whether the overall process works in terms of communicating out to those who are the initiators and whose responsibility is to manage that project

14. How to encourage the stakeholders involved in the implementation of projects to be alert to problem areas? And to be capable of answering when problems arise?

    I think is a matter of knowledge. In our business there is a lack of knowledge of how you get packaging or make packaging changes and get them on shelf, so they will come to us and say we need a new can, but they don't realize that there is big piece of activity and workload that goes behind the séance to get that can from an artwork stage onto shelf. You need the MD team, you need forecast team, you need the production team, you need materials ordering , you need procurement. They forget that there is a whole team behind all this process to get a pack on shelf, and I think that they take it for granted that they think "why can i not have that can on the shelf for next week?", and this isn't just initiators, I think this is management who are not sure how the process works; it is a resource hungry activity, if the teams haven't got that resources on time then nothing we can do. We found in the UK that people underestimate how much work and people involved are needed to get something on the shelf.

D.7 Van der Cruysse, Elise - Gatekeeper (Personal Interview, May 29, 2017)

1. Can you tell me a little about your role within the organization?

I started 6 months ago, in the role, at that time RFS Gatekeeper UK, the idea was to do first a training here in BE and then switch my position, but due to some circumstances I got responsible for BENEFRLUX RFS's, from the start . And what we do as gatekeeper, we coordinate more or less the timeline and all projects that are launched within our zone, so everything that is produce within BENEFRLUX, for example there is a new liquid, new packaging, new supplier, every change that happens on SKU's they need to request a feasibility study and then we coordinate from the start and the implementation. And we coordinate different departments working towards a certain dateline that is put by the initiator

2. Do you think the goal of RFS's are align with the general goals of the organization?

   As the request most of the time comes from marketing and sales, I think that they are linked with the goals of the company, as the main business is to sell beers. But the objective is not always clear. As gatekeepers we don't need to know exactly why we are doing the change, but we need to know what the impact is, will it be savings, will it be more cost, financial wise and supply wise, but their story about why they are doing this RFS, I don't think it is necessary for us.

3. Is the objective of the RFS clear to you?

   Every time when I open RFS's I just try to find the objective, in order to see what they need and then get what they want. But most of the time the objectives are not clear, from their perspective, marketing perspective, they just put their request, but I don't think that they realize that they are communicating this request to a lot of departments. So most of the time they put the objective in their "own language", and they don't really think about what information, all the other departments need in order to move forwards, so indeed information in not always clear. Do you see the result of a project affecting other projects? Yes, it happens a lot, especially in BENEFRLUX, as it is one of the zone that changes constantly, there is big projects running like VBI projects or bottle change, and this impact

a lot of products. It can get very complicated, for example promotions comes most of the time from trade marketing, while a new innovation will come from innovation or marketing department itself, then I need to realize that ok they are bringing new liquid for this specific type, so I need to make sure timelines are aligned, really create visibility. I think what is lacking in this company is communication between department and they really rely on the RFS gatekeepers to communicate in their place. But in my opinion, they already should communicate and create visibility on their self, especially the owners of the projects, so that they can see that if they want to launch a promo they know if the liquid is changing.

4. Can you identify consequences to the organization of the success/cancellation of a project?

   I think it is more in our role to push back, when a project is not approved, but sometimes it hard, because RFS that are raised by marketing and sometimes they want it asap on the market and then we are push from higher, but it really has an impact, because you really work more or less with a full team on that specific project and as you know we are RFS gatekeepers, we have sometimes 35 projects running at the same time, and then you focus only on and this can lead to BOM mistakes. Because people are rush up and then of course we go out of the system, but then the other department that come after is missing that automatic link to do his job.

5. Do you feel that upper management is responsive to the request of the Gatekeepers (i.e for additional resources) if the needs arises?

   I think no, that is one of the reasons why we are working in innovation mapping process, and we are including more and more departments. Cause indeed we as gatekeepers, we are constantly push, if we have bigger projects and we get push, we get sometimes even push from our own line manager to get it done, even if we say that is going to be very difficult. We don't work together as a supply,

because supply has different departments, DP,SNP,MRP, Procurement, and one of us will try to help the other to go outside of his own responsibility, but then one says yes, and another says no.

6. Do you think that upper management understand your role in the implementation of projects?

   I think in general is getting better, but I think a lot of people still miss what my role means, on the last couple of months we get a lot of feedbacks that our process is broken and then I am always there to push back and say that is not in my responsibility. Everything grew on a way that everybody thinks that it will be solved in the RFS process, and now they are all shocked when we told them that it is not in my responsibility. And even my line manager, sometimes do not understand complexity of this role and what I am doing, they understand what RFS means but I don't think they know the day to day job, and what I handling, which kind of complexity, especially when issues arrived, I am there and I need to combine different department and sometimes I don't have a clue on where to look, because I need to know what every departments does. For example, las week there was an issue with the consumer prices, but as you know we always work with the transfer prices (VIC, VLC), so supply prices, but for this time I needed to find out who is responsible for the consumer process. It is a very complex job, I think they only see the gatekeeper does the feasibility study, she tries to coordinate towards a timeline but I don't think that they understand that if there is issues the complexity is really high.

7. To what extent do you have the responsibility for the implementation of RFS's?

   Well, you base on your natural sense, so if you see that they want to have this project but they don't have capacity in the line, it is impossible, then I will never bring it to the approval meeting, I will reject it already on myself. So I think that in some way we have some authority to already reject RFS upfront. According to certain criteria like hurdles, capacity, and also by my feedback that something

was communicated but not supported by my manager, because if we don't get information in 3 day, or if we don't get the info we need as soon as possible then we can also reject, that I have done it before, but there is the support sometimes missing from our managers. And I hope that if at some point it get escalated because I reject an RFS that shouldn't, then I hope I get the support from my managers. But they have told me that I can reject RFS that have missing information for more than 3 days. So in some way I think yes, we have a lot of alternatives.

8. Do you think there is a detailed plan used for the completion of a project?

   Every time we say that we have a 13 week process, but it is not clear. We know as gatekeepers that some RFS can take less or sometimes than13 weeks, and then at that point we communicate. But as a general communication for stakeholders is not clear, for them is just that it cannot exceed 13 weeks. Every time that we get an RFS and that we do the feasibility study or during the implementation, some things get escalated and we see that there is no real timeline, from the start I think there could be more structure and more clear alignment. Also we always do everything via emails, and initiator is the owner of the project, but they are not really aware of where is pending. They should know that we are trying to have the project done, but that some departments are not answering our questions. I think the tool that we use was created for that, with the implementation tab where department could check if their job was done, but nobody is using it.

9. Do you think the 1st shipment date make sense, does the plan makes sense, is it workable?

   Most of the time I get RFS too late, and then I change the 1st shipment date. But when I see RFS for example open SKU to market and that I know that we can get in less than 13 weeks then I will just work towards 13 weeks but as you know Demand forecast will then communicate with sales and then they can internally communicate if we can bring it up front. But I will not communicate it, because first I need to wait if codes are created because you never know what can happen.

So I only change 1st shipment date when I know that is not feasible. But also, there are projects that even in 13 weeks, are not implemented during this lead time. For example, projects that are raised 13 weeks upfront, so that there should not be any issue, but then they change scope, and then we need to do test.

10. For you is it clear the key stakeholders who must support an RFS?

    Yes, I think you learned it, I started with SNP, MRP, DP, and so on. And now for me is clear, I know the moment that I have this issue I can contact that person.

11. Is the initiator of an RFS kept informed of the project's progress?

    Yes via emails, but I think they should also be interested in the process. Most of the time I only get requests when there is an issue, so for example, if sales see something they will escalate to initiator and then they are interested. We lack a lot of ownership, they are just informed that the codes are created, and as long as they see the process running and nobody is escalating something, they are not really interested in the implementation of the project. As long as they see that everything is in track and that they still can get it the week that they want, they don't really care.

12. Do you think initiator knows who to contact in case of questions or misunderstandings at all phases of the implementation process?

    In general I am the only person that is the main contact person for the initiator, but in my opinion, we always say that initiator should be the owner of the project but they rely too much on us to be the communication channel, while in my opinion, from the moment we do the feasibility study all the stakeholders are involved, so at that point initiator know which department are involved, but indeed after the codes are created, they don't know who to reach. In my opinion, it should flow automatically, and they should be the one guiding and we should be there when there is issues and when there is for example unforeseen problems, but now as it is, they just rely on us. Do you think stakeholders understand

the importance of their role, for projects to be implemented? I think sometimes they don't understand everything, they understand the goal of our job and why there is the RFS, but I think that they only see it as action that they need to do, they don't really realize that their input is really important because if they don't give their input the whole process is delayed and then projects are delay. Even for initiators I think they know why we always struggle, because we struggle to get feedbacks form initiators, so I think initiators should also be there asking others departments to do their actions, otherwise we would lose customers, and explaining it also to them, and maybe the other departments will feel more engage. I think the issue is that a lot of departments don't feel engage, they just feel that we are constantly running behind them, but they don't understand the importance of it.

13. Do you think there is sufficient manpower to manage correctly the implementation of RFS's?

    No, I think the workload is gigantic, especially in my zone, I like my job and I am passionate about it, but indeed, we could use some support like interns, or just people on summer. And I think that we already run too much on back up.

14. Do key stakeholders know how their performance will be evaluated?

    For the moment we don't evaluate their performance, I think that they don't know that they should have done better, when I send angry mails, and put their manager in copy. But we don't track which is the departments that was giving the main issues to the project. We don't track the fulfilment of every department and I think that should be something that we should track. I think they will be more engaged, for example, if we show that one department is being red for a couple of months, after a while they will realize that they are slowing down the whole process. Cause know we can say to a department that they are the ones slowing the process, but we don't have the facts and figures to show them how many projects are being delayed because they are not doing your tasks.

15. Do you think all departments are correctly trained on how the RFS process works / Is there an adequate training available for the stakeholders to understand the implementation process?

    Before it was not available, but is something that we are working on, because indeed, I think is really important that we bring a positive message to people, now they only see that RFS team are people that push, but I think is really important to prepare a video, a training, and that we explained the importance of their contribution to the process, and their inputs.

16. Do you think the technology that is being used to support the project implementation works well?

    No, we have the RFS tool, but as you know it does not work completely, the software is quite limited, and due to capacity issues, etc, we cannot use the whole setting of this tool, like the check list. So the only think that can support is emails, meeting, call and excels.

17. Do you think the appropriate technology, has been selected for the projects to have a successful implementation?

    No, even if it is hard to believe, especially in such a big organization, we are not up to date with the technology, and I think again it is because they don't see the importance of our role, and the system. I think if they will be more aware of how complex and central our job is on the company, because everything that changes moves around us. I think that there will also more support and giving us the tools to work more efficiently. People don't realize how complex and how important our job is, we then miss that support of getting the right tools.

18. Do you think specific tasks for project implementation are well managed?

    I think that it depends on the gatekeeper. But again, everything goes via mails, if one day you didn't check your emails and you didn't reply then you don't have anything to follow up, they have the PCC file, but nobody is going to go there

because it is a lot of information, and nobody really understand on what they need to do with this file. There is a tracking file needed, where every department can see where I am, where I still need to do something, and where I am late, and that is the main thing that is missing. Cause for example if I am on holidays then it becomes really difficult, I need to inform everything to my back up, this RFS's are pending there.. You need this info to move ahead, but in the meantime it will not function automatically, they will need to contact my back up and that person needs to be aware of all the projects, because she cannot check my emails. I think that is really important, because otherwise you make yourself really needed, and if something happens and you are not here, the project will not move, especially when you do a handover, somebody new is replacing you, it is a lot of information that needs to be pass, and again is a big part of your time that you are using just to know all the things that are running.

19. Is there an adequate documentation to permit easy use by the initiators of projects, for them to easily see the progress of the project?

    Our tool that was created with a functionality where they can check the process status of the projects and see where is missing something, but it is not working now. We have an excel file, but this is only internal, it is in a folder that not all initiators can access, so they are not all aware of this file. The main purpose of the tool was to share information that even people outside of our organization can have access and know the status of their project. So, you need to be in the internal circle to be fully informed of the progress or you need to communicate with me every time. But indeed, even if initiators would be interested in cooperating when something is missing and help, without contacting the gatekeeper they don't have much options.

20. How well do you think RFS are monitored?

    I think that if you are young and active, you don't mind running behind people, then you can be good at managing these projects, but at one point it will drive

you crazy, you also noticed that at one point you can have a very busy day, issues appear, and you should be there to support it, but sometimes you have so many things on going.

There is no tool to track or monitor the projects, because we are communicating everything via email, so when there is an issue sometimes you can spend hours on that, but then you open your mails and you still have emails on other things. So I think that if you really work hard and long hours, it is possible to manage this with the system we have, but at one point, and that is why I think we have a lot of change overs in this job, is that it will just drive you crazy. Because sometimes it is too much to manage by one person and indeed if for general follow up we would just have a tool, where people can go in, and you just send out every week the actions pending for that week, it will already give you more ease, more support. Now is just as you have 20 mails, you don't know if you are late, if you need to send a reminder or ask for feedback. So yes, I think it is not a good way of working and is not really constructive.

21. Do you often get asked for feedbacks on how the project is going? Does it helps you follow the implementation of the project?

    I think yes, I have some initiators really engaged. Otherwise every normal process, everything relies on your shoulder and then you just have an inner communication with yourself checking if everything is ok. But it is really good if there is an owner of a project that pushes you every week, asking feedbacks can even sometimes avoid misunderstanding. Because now we are there more or less alone, and if you are alone, working towards a deadline is hard. Because we are also humans and we can forget things, so if there is an initiator very involved that can bring visibility and awareness on the surface, it can help a lot. If you see that initiator or project lead are there, the project implementation can go faster, and we also feel more supported and you are not there alone pushing.

22. Do we take advantage of the regular meetings to correctly monitor the status of projects?

    I think that we are still missing the presence of a lot of key stakeholder on this meetings, that is again engagement lacking, and I already highlighted it so many times to several managers. Because even if there is only 2 projects for them, at least they are there, and you can still work on other stuffs and when they are requested then they can participate and maybe find a solution. This PCC meeting are for me very valuable, because I have a certain opinion on how things are done, as we need to know about everything more or less, but sometimes there are some experts that can find a new solution or a common way to solve a problem, somebody's input can be really useful for solving a problem. But then, if you lack too many stakeholders, your input will not be valuable any more, and that is what I am missing. Sometimes I get very valuable inputs from a pack change perspective but as certain people, as SNP, DP are not engaged in that meeting, I lack their support. Because, indeed initiators only care about the output they don't care how easy or difficult this will run on the lines that is when constructive inputs can be get from others. So we miss engagement but again due to no clear visibility on the progress, I understand their lack of engagement. If it is not visible what you are doing wrong or what you are doing ok, nobody will care. Because indeed, nobody is saying to them how many projects are being delay because of their task being done late, we should make them aware of how important their support is.

23. Is the goal and objectives of the project clearly communicated on the RFS tool?

    What do you think about a regularly briefing or written status reports? Because we are lacking many people in our PCC meetings, and that we don't have a tracking file discussing all the projects. Then I try to engage all the people involved in the project by writing a briefing after the approval of the RFS and writing the actions that need to be done. But indeed, this could be solved by having a tracking

file, because you know in emails some people get excluded, or someone just respond to you and not to everybody else and then some departments are missing the inputs of that department.

24. In case of project difficulties, do you know exactly where to go for assistance, are you confident that an issue can be solved?

    Yes, because most of the time we have mitigation meetings, where we try to put all the people involved in the call. I always organize this meeting if I see that everything is going wrong and that everybody is talking behind each other's, and nobody is really communicating, and I don't know if plan A is going to work, then I just organize a call, and then most of the time we align on the plan, and we agree on that point on the best solution. Because, we us gatekeepers we are not the expert of every department, so I think indeed that when is needed, the best thing to do is to create a call, to solve any issue.

25. Are there any brainstorming session, to determine or face any kind of problem?

    Well, every time I realize some issue I first send an email and I bring my own idea or solution, and if I see that people do not understand what I mean or there is too much feedback and that we are including too many people. Then we organize a call, for brainstorming. We do this often for innovation projects, were we organize this kind of call already upfront, and we already brainstorm before an RFS is raised. It is a good practice, because people are informed already from the start.

D.8 Bastian Wiesner - Supply Network Planner (Personal Interview, June 5, 2017)

1. Can you please tell me a little about your role within the organization?

SNP is for production planning, also it concerns about SKU relocation , from one production plan to another for cost reasons, for productivity reasons and so on, and also for implementing new SKU's, those are the main things we do and the main things which are related to the RFS or Portfolio team

2. How long have you been in this position?

   For 3 and a half years.

3. Can you explain me what does RFS means to you?

   For me the RFS is responsible or should cover everything from the idea of a new project, to the final implementation, so that all this process is being look from a supply perspective as well and not only driven by sales or marketing.

4. Do you think the RFS have a clear objective?

   Sometimes yes but sometimes RFS's have very little content on the description, but it depends on the case

5. How do you understand the role of GK for the implementation of RFS?

   I think it is not only the responsibility of GK to have the project implemented, I think the responsibility is lying more with all the stakeholders, the GK role is really to take over the coordination and driving the project forward.

6. Have you submitted an RFS? Did you face any trouble?

   Yes, first the response rate of the tool is very low, then the steps to follow are not always the same for all projects.

7. How are you informed of a new RFS's?

   In most cases, I get from the briefing that GK sends, the information I need. Only for some things unclear to me then I go to the RFS tool to check some things.

8. Do you feel that upper management is responsive the request of the Gatekeepers (i.e for additional resources) if the needs arises?

I think so, is nothing I experienced so far, I have never need to escalate an RFS, but in general I will say yes.

9. Do you think that upper management shares responsibility with the project team for ensuring project's success?

   I think that they really expect that we as a team are going to figure things out and get the project implemented. They really rely on us. So the responsibility is rather with the project team than with senior management.

10. Do you think the plan of RFS's makes sense, is it workable?

    I think that from looking a few years back then, the 1st shipment that was put in the tool by initiators was more or less reliable, I have the feeling that now they are just putting some random dates, because it is going to change anyway within the project.

11. Is the initiator of an RFS kept informed if the filling was not planned the day they requested?

    Only when the 1st shipment date was proactively communicated that it was needed for a specific date, when is not the case and only communicated on the tool then no.

12. Do you think initiator knows who to contact in case of questions or misunderstandings at all phases of the implementation process?

    Well sometime you get requests which don't concern you, but only when the responsibilities are really narrow between two team, then you just forward to the right people.

13. Do you think there is sufficient manpower to manage correctly the implementation of RFS's?

    Difficult to tell from the outside, from what I see now it is manageable like this, but sure if there could be one or two persons more, they could focus more on

every single RFS, maybe have more RFS implemented, maybe be a bit faster in the implementation.

14. Do you think all departments are correctly trained on how the RFS process works?

    Well, when I started I had a session with Nicole, she explained me how the RFS process works, and whenever I had a question I could just pass at her desk and ask her the question, so my training on the RFS process was really informal, I don't know how this is done for the other departments.

15. Do you think we take full advantage of the PCC meetings?

    I feel that it is going pretty fast, rushing through all the RFS, maybe we can be more efficient if we spend a bit more time per RFS.

16. Is the performance of the project team asses?

    No, but I think that if we have a tool to track the status of each RFS, more interactive, maybe people would respect this whole process a lot more and all the work which is behind this. But now this tool we have, is just from response time point of view is horrible and nobody takes time open it and wait for it for 3 minutes just to load.

E PERT/CPM example

TABLE 22.1 Activity list for the Reliable Construction Co. project

Activity	Activity Description	Immediate Predecessors	Estimated Duration
A	Excavate	—	2 weeks
B	Lay the foundation	*A*	4 weeks
C	Put up the rough wall	*B*	10 weeks
D	Put up the roof	*C*	6 weeks
E	Install the exterior plumbing	*C*	4 weeks
F	Install the interior plumbing	*E*	5 weeks
G	Put up the exterior siding	*D*	7 weeks
H	Do the exterior painting	*E, G*	9 weeks
I	Do the electrical work	*C*	7 weeks
J	Put up the wallboard	*F, I*	8 weeks
K	Install the flooring	*J*	4 weeks
L	Do the interior painting	*J*	5 weeks
M	Install the exterior fixtures	*H*	2 weeks
N	Install the interior fixtures	*K, L*	6 weeks

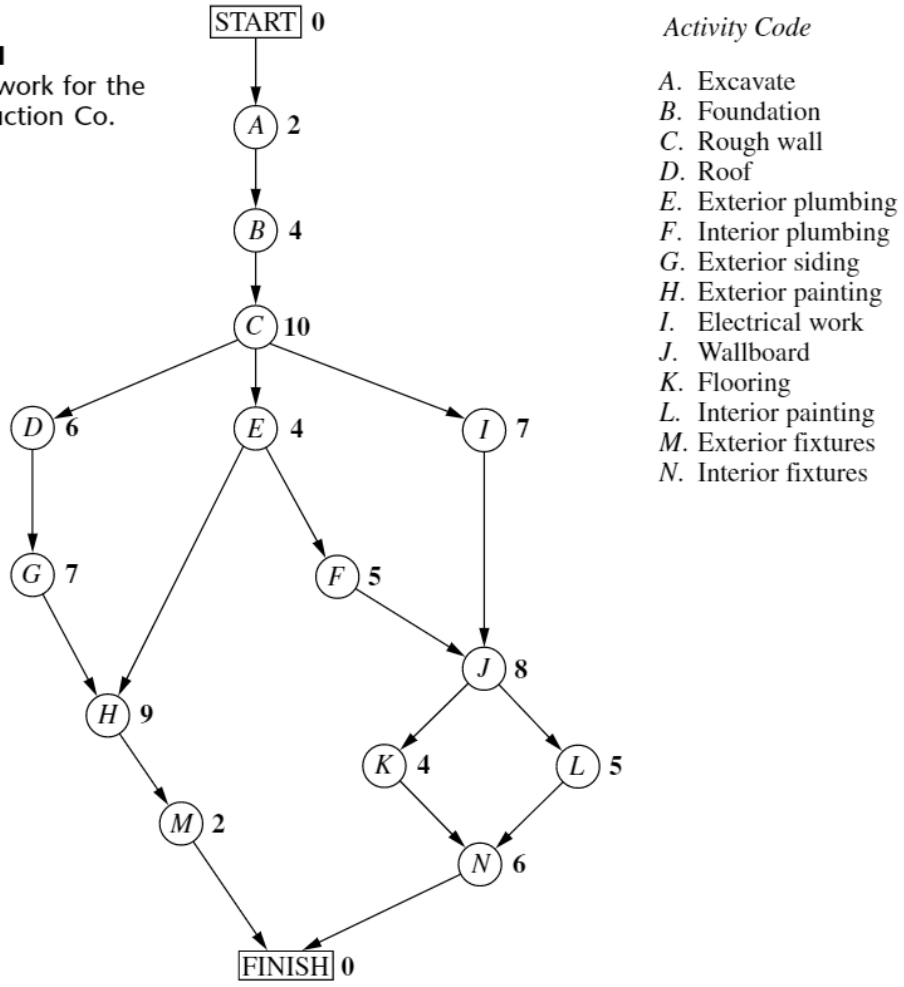

FIGURE 22.1
The project network for the Reliable Construction Co. project.

FIGURE E.1: Project Network Example ((Hillier & Lieberman, 2015))

F PCC Excel file

RFFS no.	RFFS Title/ Comments							Requested shipment wk. no	Approval wk
17995	Boddingtons 18x440ml							wk. 18	wk. 11
Implemented-Manual	MD	BOM	DP	SNP	MRP	GfP	Contract	Delayed?	Obsoletes
	yes	yes	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
PLANNED TIMINGS	wk. 12	wk. 12	wk. 13	wk. 14	wk. 14	wk. 13		wk. 19	
w13									
w15									
w16									

FIGURE F.1: PCC excel file (AB InBev's Excel file)

G The Iron Triangle

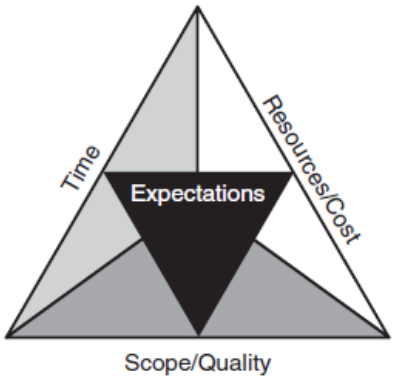

FIGURE G.1: The Iron Triangle (Horine, 2009)

H RFS tool

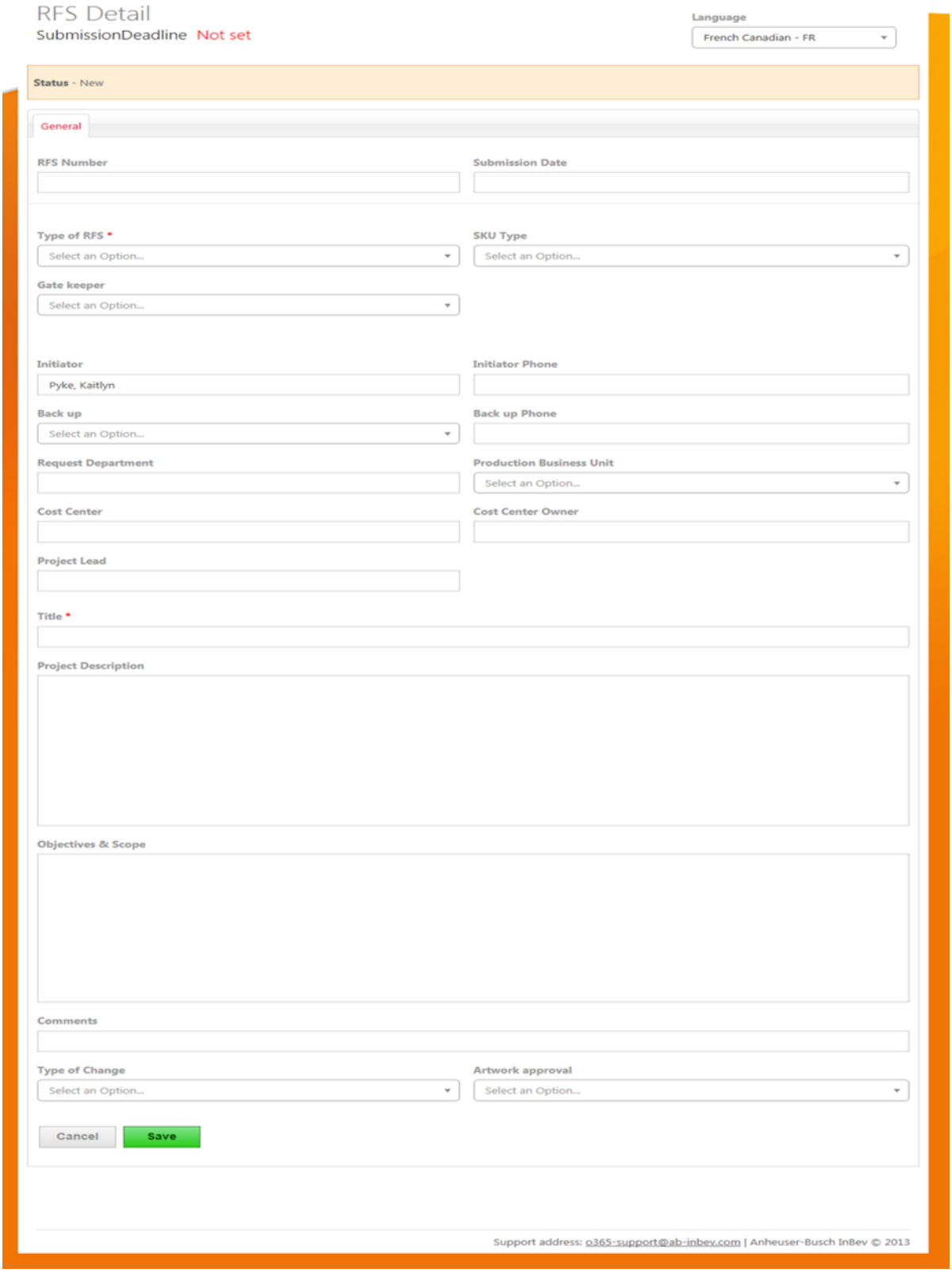

FIGURE H.1: RFS tool

I AB InBev - Europe breweries

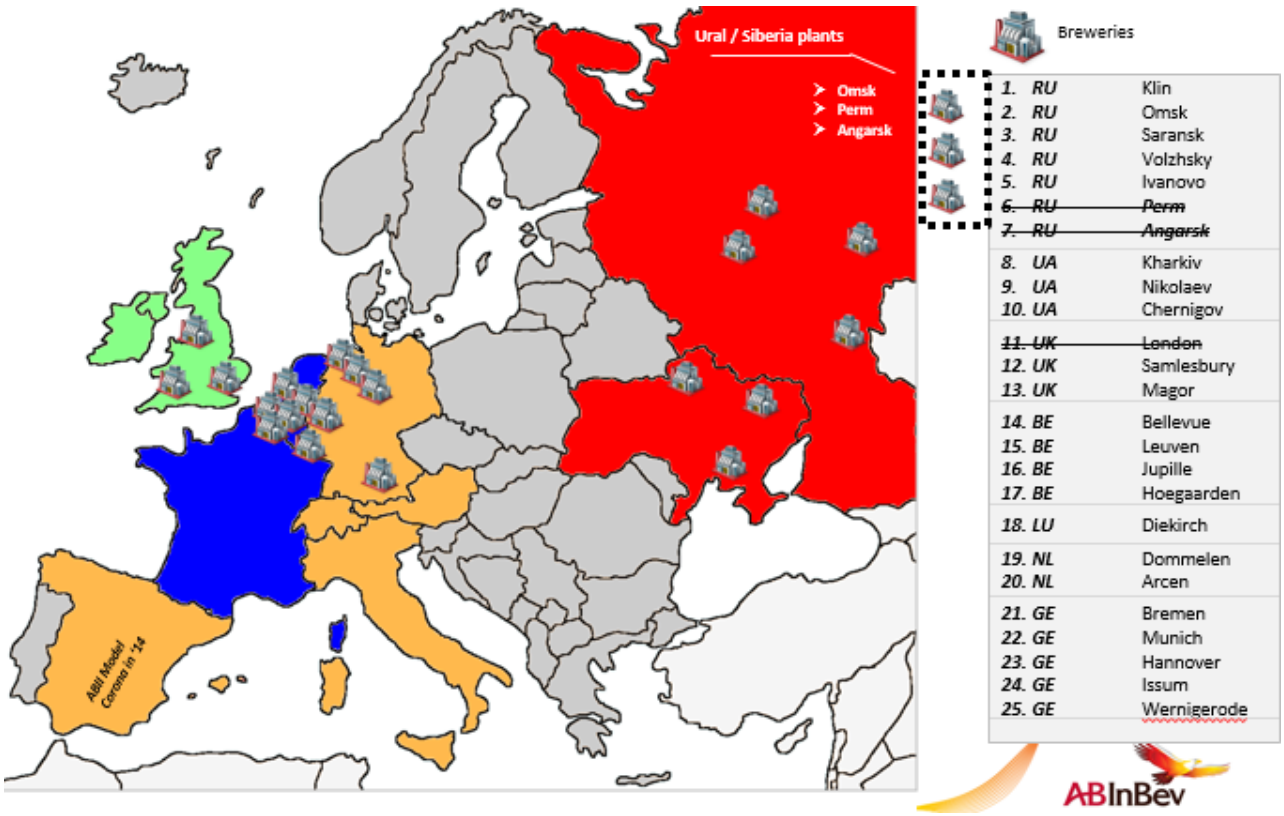

FIGURE I.1: AB InBev Europe: 22 Breweries (AB InBev, 2017b)

J Score grid

PROJECT IMPLEMENTATION PROFILE

After you have compared your scores, you may plot them on the next page and mark any factors that need special effort.

Percentile Score	Raw Score					
% of Individuals Scoring Lower	**Factor 6** Technical Tasks	**Factor 7** Client Acceptance	**Factor 8** Monitoring and Feedback	**Factor 9** Communication	**Factor 10** Trouble-shooting	Project Performance
100%	35	35	35	35	35	84
90%	34	34	34	34	33	79
80%	32	33	33	32	31	76
70%	30	32	31	30	29	73
60%	29	31	30	29	28	71
50%	28	30	28	28	26	69
40%	27	29	27	26	24	66
30%	26	27	24	24	23	63
20%	24	24	21	21	21	59
10%	21	20	17	16	17	53
0%	8	8	5	5	5	21

FIGURE J.1: PIP Score grid (Cleland & King, 1988)

K AB InBev - History

Table 4: Anheuser-Busch InBev NV/SA - History		
Year	**Event type**	**Description**
2015	Acquisitions/Mergers/Takeovers	AB InBev completed acquisition of Elysian Brewing Co., a leading craft brewer in Pacific Northwest region.
2015	New Products/Services	The company introduced rum flavored beer, Cubanisto.
2015	Corporate Changes/Expansions	The company announced to exit the joint venture with RJ Corp., to gain full control of its India operations through its wholly-owned subsidiary, Crown Beers India Pvt. Ltd.
2014	Acquisitions/Mergers/Takeovers	AB InBev completed acquisition of Ginsber Draft Beer company, based in Jilin province, northeastern China.
2014	Acquisitions/Mergers/Takeovers	The company re-acquired Oriental Brewery.
2014	Acquisitions/Mergers/Takeovers	The company completed acquisition of Pivovar Samson a.s from Taurus One Limited.
2014	Others	The company sold its Nava Glass Plant.
2013	Others	The company divested Grupo Modelo's US business.
2012	Contracts/Agreements	The company's subsidiary, AmBev entered into a strategic alliance with E. Leon Jimenes to form a leading beverage company in the Caribbean region.
2012	Contracts/Agreements	AB InBev signed an agreement to acquire remaining stake in Grupo Modelo.
2011	Contracts/Agreements	The company was appointed as the official beer sponsor for the FIFA world cup 2018 and 2022.
2011	Acquisitions/Mergers/Takeovers	AB InBev completed acquisition of Goose Island.
2009	Others	The company's American Deposit Receipts (ADR) started trading on NYSE.
2009	Others	The company sold its South Korean business, Oriental Brewery.
2009	Official Trials/Tests	AB InBev divested its operations in Central Europe and the Balkans.
2009	Official Trials/Tests	The company sold its four metal beverage container manufacturing plants.
2009	Others	The company divested its stake in Tsingtao Brewery Co., Ltd. and InBev USA.

FIGURE K.1: AB InBev - History (Canadean, 2016)

Table 4: Anheuser-Busch InBev NV/SA - History		
Year	**Event type**	**Description**
2008	Acquisitions/Mergers/Takeovers	InBev completed acquisition of Anheuser-Busch and InBev was renamed as Anheuser-Busch InBev NV/SA.
2007	Others	The company divested its 90% interest in Immobrew.
2006	Acquisitions/Mergers/Takeovers	The company completed acquisition of Fujian Sedrin Brewery.
2006	Acquisitions/Mergers/Takeovers	The company completed acquisition of Quinsa.
2005	Others	The company divested its 62.4% stake in Bremer Erfrischungsgetranke.
2005	Acquisitions/Mergers/Takeovers	The company completed acquisition of Tinkoff Breweries.
2004	Acquisitions/Mergers/Takeovers	InBev was formed following the merger of Interbrew and Companhia de Bebidas das America (AmBev).
2001	Acquisitions/Mergers/Takeovers	The company completed acquisition of Diebels and Beck & Co.
2000	Acquisitions/Mergers/Takeovers	The company acquired Whitbread Brewing and Bass Breweries.
1996	Acquisitions/Mergers/Takeovers	The company completed acquisition of Astika Burgasko Kamenitza.
1995	Acquisitions/Mergers/Takeovers	The company completed acquisition of Zagrebacka Pivovara.
1995	Acquisitions/Mergers/Takeovers	The company acquired Labatt Brewing Company.
1990	Acquisitions/Mergers/Takeovers	The company completed acquisition of Belle-Vue brewery.
1990	Acquisitions/Mergers/Takeovers	The company acquired Oriental Breweries.
1989	Acquisitions/Mergers/Takeovers	The company completed acquisition of Hoegarden.
1987	Incorporation/Establishment	Anheuser-Busch InBev NV/SA was incorporated as Interbrew SA following the merger of Brasseries Artois and Brasseries Piedboeuf.
Source: Canadean		

FIGURE K.2: AB InBev - History (Canadean, 2016)

L AB InBev - Key products and brands

Table 3: Anheuser-Busch InBev NV/SA - Major Products and Services
Products:
Beer
Non-Beer Beverages
Brands:
Global Brands:
Budweiser
Stella Artois
Corona
Bud
International Brands:
Beck's
Hoegaarden
Leffe
Local Brands:
Bass
Brahma
Bud Light
Busch
Michelob
Natural light
Alexander Keith's
Light
Kokanee
Labatt
Lucky
Lakeport
Oland
Barrilito
Estrella
Leon
Modelo
Montejo
Pacifico
Tropical
Victoria

FIGURE L.1: Key products and brands of AB InBev (Canadean, 2016)

Table 3: Anheuser-Busch InBev NV/SA - Major Products and Services
Antarctica
Bohemia
Brahma
Skol
Guarana Antaractica
Andes
Norte
Patagonia
Quilmes
Belle-Vue
Jupiler
Vieux
Temps
Diebels
Franziskaner
Haake-Beck
Hasseroder
Lowenbrau
Spaten
Gilde
Whitbread
Mackeson
Korona
Source: Canadean

FIGURE L.2: Key products and brands of AB InBev (Canadean, 2016)

M AB InBev - SWOT

Company Profile

AB InBev

SWOT Analysis

Strengths	▪ Largest global beer company with annual sales of USD45bn.
	▪ Dominant position in two of the world's most profitable beer markets: Brazil and the US.
	▪ By far the most profitable of the big three beer companies thanks to its geographic mix and efficient cost-control policy.
Weaknesses	▪ High exposure to developed markets means organic growth is harder to come by.
	▪ Volumes continue to fall across major markets even in EMs such as China.
	▪ Economic recession in Brazil has taken its toll on the company's performance.
Opportunities	▪ Increasing investment into fast-growing craft beer in the US.
	▪ Mexico's positive consumer outlook will create opportunities to premiumise beer, especially given AB InBev's dominant position.
	▪ Strong beer outlook in Asia, although it will put pressure on margins as beer has proved hard to premiumise in the region.
	▪ An attractive portfolio of beer brands in rapidly growing African states following SABMiller purchase.
	▪ Expanding product portfolio into near beer, flavoured beer and low- or non-alcoholic beer.
Threats	▪ Declining per capita beer consumption in the US and competition from craft brewers.
	▪ Alcohol frequently targeted for excuse duties and taxes, which can hurt margins.
	▪ Saddled with a high debt burden from the acquisition of SABMiller.

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FIGURE M.1: AB InBev - SWOT (Business Monitor International, 2017)

N AB InBev - Excellence Programs

FIGURE N.1: AB InBev - Excellence Programs (AB InBev, 2016b)

O Supply Chain Organization

FIGURE O.1: Supply Chain Organization at AB InBev

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