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By

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Establishing relationship between value proposition and concept validation



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Establishing relationship between value proposition and concept validation

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Executive summary

Fuzzy front-end innovation (FFEI) is the most challenging and unmanageable stage of new product development. This is due to the uncertain and dynamic nature of product, market and consumer knowledge related to innovation. Value proposition creation (VPC) process is a part of FFEI. The scope of the research of this thesis is from VPC kick-off until finalisation of the concept. It involves opportunity exploration, generation, prioritisation, validation of ideas and concepts. Although VPC is being studied in academic and by organisations since decades still organisations are going through a high number of iteration and continual change of scope of VPC process before finalising the concept which is accepted by consumers. The acceptance of the concepts is checked qualitatively and quantitative with consumers. The main reason of the failure of the concept to gain consumer acceptance is the lack of structure of VPC process, lack of understanding of attributes of VPC, lack of understanding of tools and processes required to define the key attributes, and lack of understanding of influence of innovation on these attributes of value proposition (VP). Attributes of the value proposition can be defined as the consumer, market, product, process, and organisational characteristics of value proposition. Furthermore, innovation is considered as the newness to the organisation. Hence, the objective of this research is to prepare theoretical framework showing the relationship between attributes of VP and acceptance of the concept which can be used by managers as a step by step guide to design a sprint of VPC process based on the scope of innovation.

Philips is selected for this research to understand the real-life cases which involve VPC process. The initial conceptual model was prepared from literature review and desk research at Philips which is validated through semi-structured interview. Final conceptual model, theoretical framework 1, and theoretical framework 2 are prepared from case study and interview result analysis. Final conceptual model shows the key attributes of VP which influence acceptance of the concept by consumers and their role (independent variable or moderators). These key attributes are unmet consumer need, superior offer, competitive price, involvement of consumer, involvement of multifunctional team, additional cost, emotional appeal and brand influence. Theoretical framework 1 showed step by step method to guide VPC process by identifying above-mentioned key attributes for inspiration (opportunity exploration), ideation, and implementation phase. It further showed the influence of scope of innovation (incremental or disruptive) on the relationship between VP and acceptance of the concept by consumer. Theoretical framework 2 identified the tools and processes essential to define the attributes of VP to generate high concept test score from consumers.

This research contributed to academia and practice by identifying key attributes of VP, establishing relationship between attributes of VP and acceptance of the concept by consumers, providing structure to the VPC sprint, defining attributes essential for different innovation type, and identifying the tools and processes needed to define each key attribute of VP.

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Chapter 1: Introduction

1.1 Problem Identification

Upfront or fuzzy frontend innovation (FFEI) is the most challenging and unmanageable stage of new product development. FFEI can be defined as the period from first-time opportunity exploration (also known as inspiration phase) until final concept evaluation as shown in Figure 1. During this process, several ideas are generated. These ideas are prioritised based on the feedback of consumers. Top ideas are developed into concepts. Best concept is finalised from top concepts based on the feedback of the consumers (Kim & Wilemon, 2002). FFEI is very critical for new product development as effectively managing front end development leads to success of new product (Cooper, 1988). However, *the challenges to manage FFEI arise mainly due to unstructured, low formalisation, dynamic, and uncertain nature of it* (Murphy & Kumar, 1997). These challenges are elaborately discussed below.

Uncertain nature of FFEI

During the early development stage, the process starts with an idea. It is difficult to understand the commercial potential of the idea due to lack of understanding of “need”, “technology”, “markets”, “required resources”, “company-fit and capabilities”, and “company limits” (Kim & Wilemon, 2002, p.2). Understanding consumer need is one of the key elements of FFEI. Understanding consumer needs help to design and develop product which is desirable by consumers. However, consumer needs are often unarticulated or poorly articulated. It needs experience project team members, product knowledge, market knowledge, and best practices of the organisation to translate these unarticulated needs to desired concepts (Khurana & Rosenthal, 1997). In this early stage, organisation may not have defined tools, processes, knowledge workers, and technology to capture these needs. If needs are clear still technical feasibility plays a big role to translate these needs to product (Khurana & Rosenthal, 1997). Furthermore, the product should fit with organisations’ vision, mission, strategy, and portfolio. It needs strong leadership support to understand future of the idea to assess the availability of organisations’ resources, capability, and alignment with organisations’ mission and goal (Khurana & Rosenthal, 1997). However, if the fuzzy front end is not managed efficiently, it is difficult to understand these requirements due to uncertainty associated with the idea. Most of the ideas get killed before the product launch is largely due to mismanagement and poor understanding of front-end development.

Lack of structure and formalisation

New product development follows different pattern and characteristics based on the scope of innovation. Scope of innovation defines the degree of newness. *Newness can be related to technology, market, product, or organisation. In this thesis the newness for the organisation is considered. Newness can be incremental or disruptive innovation for the organisation. Incremental innovation deals with small changes whereas disrupt innovation bring completely new product or process.* So, the lack of structure makes it difficult to generalise the findings. Besides, front end development involves high level of creativity which demands freedom. It demands low level of formalisation where the process is governed by unwritten rules. Hence, it makes it difficult to follows uniform process (Murphy & Kumar, 1997). Due to the lack of structure and formalisation idea generation, development, and selection goes through several

ad hoc decisions and ill-defined process (Montoya-Weiss & O'Driscoll, 2000). This leads to several iteration before finalising the desired concept. It increases product development time and cost due to learning, unlearning, and rework process. The wrong decision should be resolved in the early development stage. It can increase further cost if carried forward to the product development stage (Kim & Wilemon, 2002).

Dynamic nature of FFEI

Dynamic nature of the market makes it challenging to follow ongoing trends. Consumer needs and choices changes to different contextual parameter such as time, market, geographical location, and social influencers. Hence, it is essential to have up to date consumer insights. Furthermore, overview of available competitors' product and alternatives is also equally important. Besides, organisations should keep an eye on potential future idea and products of competitor by doing patent scanning. Furthermore, knowledge of future technology and product is also critical. The success of the idea depends on the organisation's knowledge of the current consumer, product, and market insight. However, these three fields are dynamic and acceptance of the concept by consumers depends on organisations' flexibility and dynamic capability to accommodate these changes. Idea generation, development, and concept formulation go through several iterations due to lack of clarity on the current trend of consumer preference, market position, and technological development. This increases product development time and cost. Furthermore, it is important to develop and launch the right product at the right time to increase profitability. Hence, it is essential to manage the front end of innovation well.

Below are the key problems identified from above paragraphs which this thesis aims to provide solution.

- Uncertainty of governing FFEI during starting phase related to unmet consumer need, organisation best practices, technical feasibility, competitors' position, and market orientation.
- Additional investment in terms of time, cost, number of iterations, and effort due to ad-hoc decisions and ill-defined process.
- Lack of structure and formalisation makes it difficult to structure FFEI as per the scope of innovation (disruptive/incremental).
- Difficulty to manage FFEI due to the dynamic nature of consumer, market, and technology knowledge.

1.2 Key concepts

Fuzzy front-end innovation

FFEI is the early development stage which includes all up-front activities. It starts with the idea, goes through screening, validations, business development, and finally enter to the product development. So, the fuzzy front end involves all activities from opportunity exploration until the start of product development (Cooper, 1988). FFEI starts with the idea and organisation translate these ideas to product concept which offers value to consumers.

Value proposition (VP)

In simple term value can be defined as a set of benefits product or service promises to deliver. So, the value proposition is the strategic approach organisations use to define its offer and superior value. It differentiates the organisation from its competitors (Kambil, Ginsberg, & Bloch, 1996).

Value proposition creation (VPC) process

Value proposition creation is the process followed by the organisation to create value for target customer (Osterwalder, Pigneur, Bernarda, & Smith, 2014). “A customer value is a customer’s perceived preference based on evaluation of product attributes, performance attributes, and consequences arising from use that facilitate (or block) achieving the customer’s goals and purpose (Woodruff, 1997a).” It is the process followed during front end development of the product to identify and incorporate desired customer needs, benefits, and features in the concept. Value proposition creation process starts with opportunity exploration and ends with concept validation as shown in Figure 1.

Value proposition creation (VPC) process to manage FFEI

The main task of FFEI is to design a concept which is desirable for consumers. VPC is the process which delivers desired concept during frontend innovation through series of activities. The first activity of VPC process is the identification of the problem or opportunity. Then it follows screening and evaluation process for “idea generation”, “idea evaluation”, “concept development”, and “concept evaluation”(Gassmann & Schweitzer, 2013). VP is the strategic approach followed by organisations to co-create with consumers to deliver the desired concept.

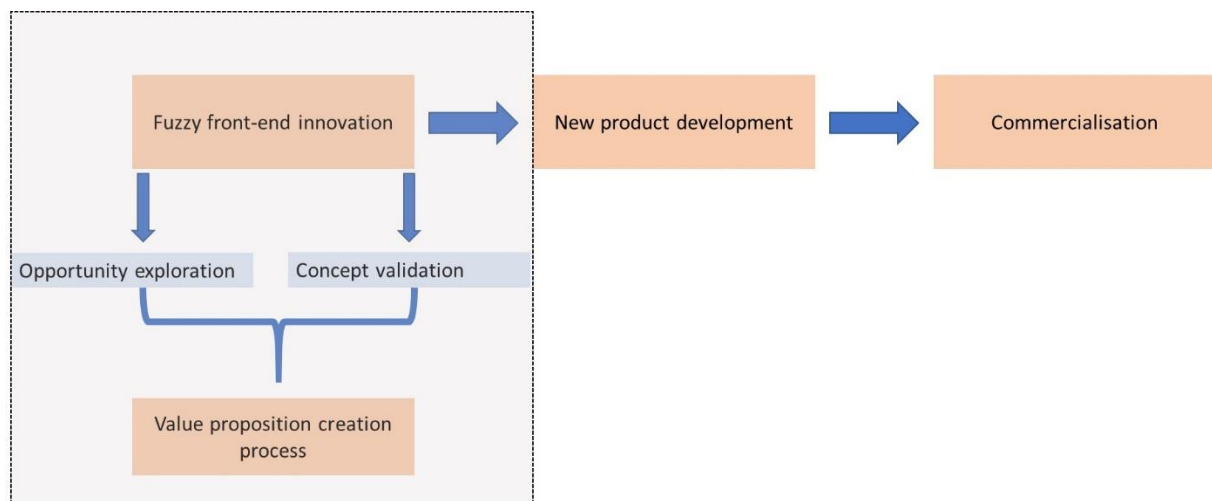


Figure 1: VPC as a part of FFEI

Attributes of VP

Attributes term is used in this thesis to define the characteristics of VP. These attributes can be categorised as consumer, market, product, process, organisational, and miscellaneous attributes. Figure 2 shows these attributes of VP.

Concept

Concept can be defined as *a visual and written description which includes key insights, its primary features, and customer benefit* (Belliveau, Griffin, & Somermeyer, 2004a). Product concept is the result of VPC activities. Large number of concepts are generated, screened, and validated during VPC process. Based on these evaluations organisations decides if it should invest its resources for further product development or not (Murphy & Kumar, 1997).

Acceptance of the concept by consumers

A concept is successful if it fulfils consumer needs. In short, the concept is successful if consumers are willing to pay for the benefits it offers when it is developed into the product or service. Acceptance of the concept is measured by both qualitative and quantitative test with potential consumers. Qualitative tests are performed during initial stages to screen concepts. Quantitative test are performed during last stage of concept validation (Murphy & Kumar, 1997). In this thesis acceptance of the concept is decided based on the quantitative test score. If the score is high it indicates acceptance of the concept by potential consumers. Figure 2 shows the relationship between attributes of VP and acceptance of concept by consumers.

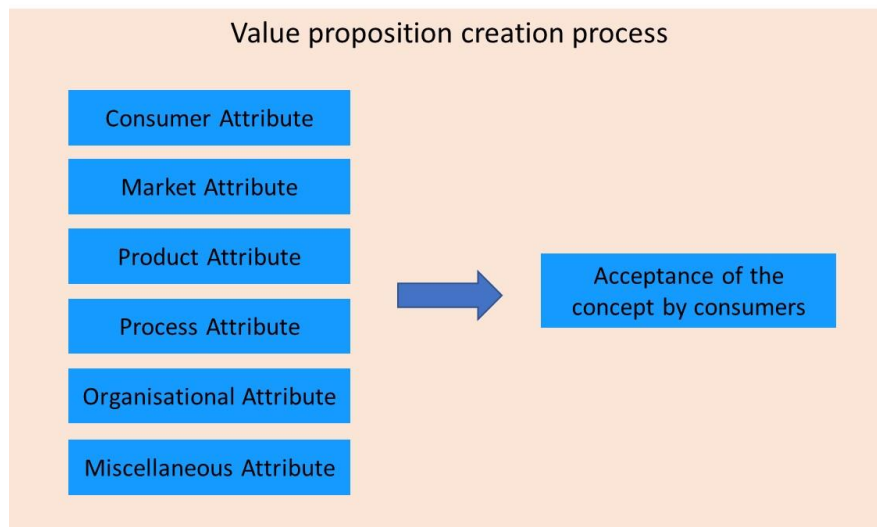


Figure 2: Relationship between attributes of VP and acceptance of the concept

1.3 Knowledge gap

1.3.1 In practice

Lack of understanding of attributes of VP

Uncertainty and dynamic nature of value creation process make it difficult for managers to understand which parameters should consider during VPC process to develop the desired concept by consumers. Managers need to understand the consumer need to further assess the technology and new application (Trott, 2008). Besides, understanding of target market, competitor position, and alignment of business and technology play a significant role in defining compelling value proposition and concept. Lack of understanding of these parameters leads to high number iterations and innovation time (Khurana & Rosenthal, 1997). It is essential for manager to understand the influence above parameter on the concept to develop concepts which meets the consumer need.

Lack of understanding of influence of scope of the innovation on attributes of VP

The scope of value proposition creation process changes with the degree of newness of the project. For example, products which deal with incremental adaptation may need less time, resources, research, and cost compared to the project which involves disruptive innovation. However, manager needs to define the scope of the VPC process based on the scope of product innovation. To achieve this, manager should understand the attributes which are essential to check or eliminate for incremental and disruptive projects. Incremental project may build on existing proposition whereas disruptive projects may need to build value proposition from scratch. However, understanding the key attributes of VP is important for creating value in incremental and disruptive project. This will help manager to narrow down the area of focus. Furthermore, it will reduce the cost, time, resources, and effort involved in value proposition creation.

Lack of structure to VPC process

Concepts are the sketches or three-dimensional model to illustrate the preliminary version of the product. Concepts are relatively inexpensive to develop. Hence, managers produce several concepts before finalising the concept to further design and develop. Concept generation process goes through several loops of consumer, market research and validation throughout these iteration process. However, these iterative process leads to an increase in project time, project cost, and the product cost. Furthermore, additional resources, time, and budget required to identify consumer need, competitors' position, value packages, and technical requirement for each concept. Several iterations will lead to re-work of these processes (Khurana & Rosenthal, 1997; Trott, 2008). However, manager can reduce the number of iterations by reducing the extent of uncertainty associated with the VPC process. It needs an understanding of attributes of VP and its relationship with acceptance of the concept by the consumer *at each stage of the VPC process*. The stages of VPC process are inspiration (opportunity exploration), ideation (idea generation, prioritisation, and validation), implementation (concept validation) ("IDEO Design Thinking," 2019).

Lack of tools and processes to define attributes of VP

As mentioned earlier, the front-end innovation process is uncertain, dynamic, and unstructured. Hence, it is difficult for the organisation to define structured tools and processes for value proposition creation process during the early stage of innovation. Additionally, each innovation is different. So, it is not possible to define standard structures and processes which will apply to every project (Khurana & Rosenthal, 1997). So, first, it is essential to understand the attributes of VP which influences acceptance of the concept by consumers. Then, the tools and processes can be defined to identify these attributes of VP.

1.3.2 In academic research

Lack of understanding of attributes of VP

It is always difficult to manage the value proposition creation process due to the uncertainty associated with the availability of consumer, product, market, and technology knowledge. The initial stage is more difficult to manage which deals with opportunity exploration. The biggest challenge of identifying opportunity is finding the right problem. It gradually becomes a little structured with ideation and implementation phase, but it becomes challenging to change anything during implementation phase. So, it is easier, less costly, and effective to change and evaluate during initial stages. *Dynamic and uncertain nature of product, market, technology, competitor position makes it difficult to understand what to focus on* (Gassmann & Schweitzer, 2013). Payne et al. (2017, p.467) stated that *VP concepts strongly lack a theoretical framework. Theoretical framework in this thesis indicates the attributes of VP which are determined based on acceptance of the concept by consumers.* Gassmann & Schweitzer (2013) further stated that changes in later stages during product development can be reduced significantly if front-end innovation is managed well. So, it is essential to understand the attributes of VP which influences the concept. Validated concept translates into product in later stage. It can reduce the chance of failure of concept, number of iterations, cost, and effort.

Lack of understanding of influence of scope of the innovation on attributes of VP

It is always difficult to structure the value proposition creation process as each project is unique and different. It depends on the scope of the project. Scope of the project is dependent on the type of innovation the product needs. Scope of innovation mainly depends on the functionality of the product which needs to be developed. The functionality of the product further depends on the market, consumer, and technology trends (Khurana & Rosenthal, 1997; Montoya-Weiss & O'Driscoll, 2000). Innovation can be incremental or disruptive. As mentioned in the above paragraph, there is no clear understanding of the attributes of VP which influences the acceptance of the concept by consumers. It makes difficult for the manager to govern VPC pathway. Influence of scope of innovation on the attributes of VP makes it more difficult to control. In this thesis, innovation is considered as the newness to the organisation. *As per our knowledge, we have not found academic literature which shows the theoretical framework explaining the relationship between attributes of VP and acceptance of the concept by consumer considering the scope of innovation.*

Lack of structure to VPC process

Tim Brown, executive chair of famous design organisation, IDEO, defined these design thinking process for value creation as Inspiration, Ideation, and Implementation. Inspiration is the opportunity exploration phase. This is the stage where new business ideas are identified.

Ideation phase deals with idea generation, prioritisation, and evaluation. Then, these ideas are translated into the concept. This comes in the implementation phase where concepts are validated by consumers. Inspiration, ideation, and implement consist of one sprint. These sprints are repeated until the concept is accepted by consumers (“IDEO Design Thinking,” 2019). It is difficult for managers to structure these sprints. This is due to the lack of understanding of attributes of VP which plays an important role at different stages (Adikari, McDonald, & Campbell, 2013). Furthermore, the addition of the influence of innovation on these attributes makes it more challenging to provide structure to these sprints by managers. *As per our knowledge, we have not found academic literature which shows the theoretical framework explaining the relationship between attributes of VP and acceptance of the concept by the consumer considering the scope of innovation at each stage of the sprint i.e. inspiration, ideation, and implementation.*

Lack of tools and processes to define attributes of VP

The initial phase of value proposition creation process is highly uncertain and unpredictable. This is due to the lack of understanding of the need, technology, price, resources, capability etc. required to develop the concept. This makes it difficult to define the tools and processes to define the attributes. Furthermore, the VPC process is a creative and knowledge-intensive process. These types of work generally thrive in loose formalisation (Khurana & Rosenthal, 1997). However, the main challenge for defining the tools and processes is due to the uncertainty associated with the attributes of VP. Identification of well-formulated tools and processes to identify the attributes of VP can be the guidance for VPC expert to solve challenges.

1.3.3 At Philips

Timeline of VPC process

“Generally, the timeline of the VPC process depends on the scope of innovation. If the project demands incremental change it is called as renew project at Philips. If the project demands innovation which is totally new for Philips it is called as disrupt project at Philips. If the project demand innovation but Philips already has experience in the respective field, it is called as expand project. The timeline for renew project is three months. Expand projects should take six months and disrupt project should take one year. There is no fixed guideline for timeline. Above information are purely based on experience. However, it is very rare to complete the respective project within the above-mentioned timeline. In practice, renew projects at least take one year whereas expand and disrupt may take two to three years based on the complexity involved in the project” (Consumer researcher, Philips 2019).

Projects which involve incremental changes are called as renew project at Philips. Similarly, the project with disrupt innovation is called as disrupt project. Expand projects are mixed type project which may be new for specific product or category but not new for the organisation. So, it involves characteristics of both disrupt and incremental innovation. The main reasons for the extended timeline are uncertainty about consumer, market, and product knowledge. Furthermore, it is difficult for manager to understand the key attributes with respect to different types of innovation. This leads to a higher number of iterations to define value proposition to meet the need of consumers. This process involves additional financial and non-final cost

(effort, search, time etc.). Lack of theoretical framework makes it difficult for the manager to guide the VPC pathway based on innovation type.

Change of scope of the VPC

It is very common at Philips that the defined scope of the VPC at the start has changed with the continuation of the project. This means initially the project is defined as disrupt or expand. However, at the later stage, the project is defined as the renew project. It is also possible that the scope of the VPC is changed other way i.e. from renew to expand or disrupt. This changeover leads to wastage of time, effort, and investment. The scope of the VPC has changed in five out of nine projects which the researcher studied for this paper.

“There can be several attributes which influence the change of scope of VPC. The main causes are investment, lack of strategic vision, lack of communication, and the threat of competitor. Initially, the project starts with some potential ideas. However, at later stage core team and management may have realised it may need new technology or clinical research. This involves a huge investment. Sometimes, the commercial and technical goals of the project are not communicated properly to the core team which leads to misalignment of the strategic vision of higher management and workforce. In some cases, it is observed that competitor may also be focusing on a similar proposition and they may able to launch the product ahead of Philips. So, management decides to cancel the project. However, the initial phase of VPC is messy and uncertain. It follows several iterations before finding the way out” (Market intelligence, Philips 2019).

In some cases, VPC projects run over several years with phases of work and rework. There is an example of a case which continued for three years and at the end management decided to cancel the project due to lack of potential business opportunity and alignment with vision of Philips.

Non-uniformity in VPC process

Although Philips has defined guideline for VPC process which they have designed from the innovation experience of over hundreds of years but each project with respect to VPC is unique. Hence, the core team tries to tailor-made the VPC process as per the project requirement. Below are few examples of the opinion of VPC experts.

“Yes, Philips has well-defined VPC guideline, but we have not followed the VPC pathway. We have VPC experts and creative multi-functional team. Through ideation, we define as many concepts as possible. Sometimes it is in hundreds of concepts. Then, we check with consumers via. focus groups. We prioritise the concepts based on consumer feedback. Then along with the multi-functional team, we select four to five most potential concept. These concepts are validated with consumers in quantitative research with the help of the external agency” (Market intelligence, Philips 2019).

Similarly, *“This project is driven by technology push. We knew that there is unmet consumer need and we have patented technology. We launched a product with the same technology before, but the proposition failed due to other issues, especially quality complaint. We learned from that project. Now, we are going to implement these learnings in this project. However, we are not going to follow the VPC process thoroughly. We will directly go for the concept validation” (Innovation and development, Philips 2019).*

Increase timeline, change of scope, non-uniformity of VPC process are examples of lack of understanding of attribute of VP, influence of scope of innovation, lack of structure, and lack of understanding of key tools and processes. Fuzzy front-end innovation has undergone through years of development. However, the example of above cases shows that there is still scope of improvement to reduce the timeline, and the number of iterations by increasing the certainty of acceptance of the concept by consumers. This paper will help to move one step forward in this direction by establishing the theoretical frameworks on attributes of VP and acceptance of the concept by consumers.

1.4 Research relevance

As mentioned in section 1.3, this thesis will contribute to academic research in following ways:

1. By establishing the theoretical framework of attributes of VP and acceptance of the concept by consumers. In this paper, all important attributes (antecedents, moderators, and mediators) will be identified.
2. By establishing the theoretical framework for VP and acceptance of the concept by consumers based on the scope of innovation (incremental or disruptive innovation)
3. By providing structure to VPC process (for one sprint) by designing step by step approach to govern VPC process to generate consumer-centric concepts
4. By defining tools and processes to define attributes of VP and concept

1.5 Scope of the research

This thesis focuses on the value proposition creation process. So, the scope of the thesis is from the kick-off of VPC process (opportunity exploration) until finalization of concept. A single organisation will be selected, and different cases of the organisation will be analysed to identify the attributes of VP.

1.6 Research Objective

Considering the knowledge gap in practice, academics, and Philips as mentioned in section 1.3.1, 1.3.2, and 1.3.3, the research objective can be listed down as follows:

“To prepare theoretical frameworks showing the relationship between attributes of VP and acceptance of the concept by consumers which can be used by managers as a step by step guide to design a sprint of VPC process based on scope of innovation.”

1.7 Research questions

Main research question:

What is the relationship between attributes of VP and acceptance of the concept by consumers?

The research aims to establish the relationship between attributes of the VP and acceptance of the concept by consumers. Furthermore, it will emphasise the practical significance of the relationship between attributes of VP and concept. Here, the frameworks on the relationship between attributes of VP and acceptance of concept will be discussed further to solve the identified knowledge gap in academics and practice.

Sub-research question:

1. Which are the attributes of VP that influence acceptance of the concept by consumers?

To answer the main research question, it is essential to find out all attributes of VP which can influence the acceptance of the concept by consumers. So, aim of this question is to find out all attributes of VP from academic literature and desk research.

2. What are the most critical attributes and their role?

It is crucial to find out the most important attributes out of all identified attributes to manage the value proposition creation process. These attributes are called as leading attributes in this paper. Managers can only focus on leading attributes to define concepts. It will help to reduce the time, effort, and resources during VPC process. In addition, the role of each attributes as antecedents, moderators, and mediators will be identified.

3. How do these attributes change with the scope of innovation?

This sub-question aims to find the leading attributes which managers should focus to define the scope of the projects based on incremental, disrupt, or mixed type (properties of disrupt and expand) innovation.

4. What is the practical significance of attributes of VP from manager point of view?

This sub-question aims to find the ways in which identification of these attributes will help to solve the practical challenges for managers. The practical challenges are reduction of uncertainty involved with VPC process, unmanageable VPC process, higher number of iterations, high investments due to lack of structure etc.

1.8 Research flow diagram

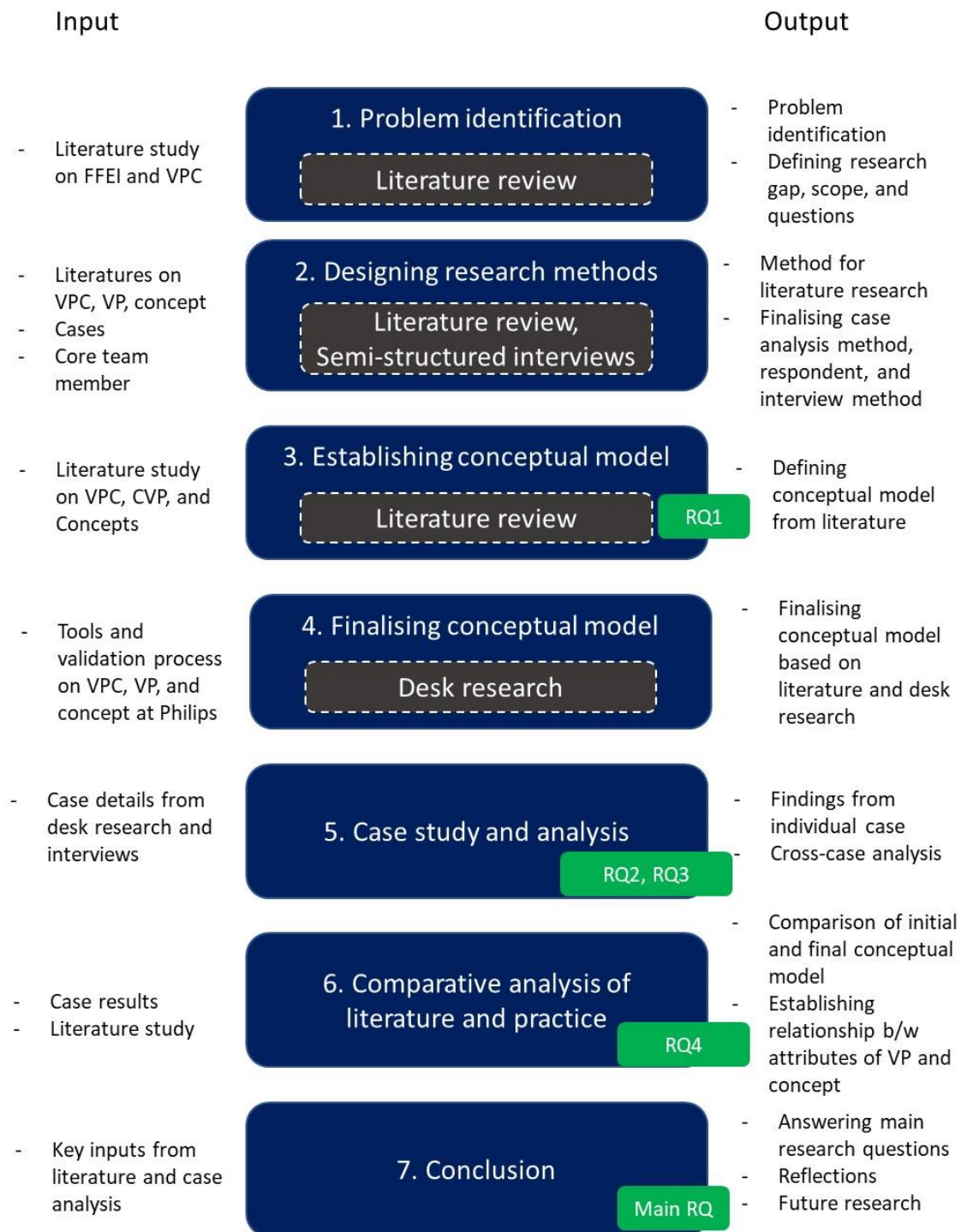


Figure 3: Research flow diagram

1.9 Summary

Chapter 1 identifies the current problem from literature and practice concerning to management of fuzzy front-end innovation. Then this knowledge gap verified in the selected organisation (Philips). This led to the foundation of the research. Scope of the research, research objective and research questions are framed based on the above-identified knowledge gap. Table 1 summarises the key points of chapter 1.

Knowledge gap	Below are the identified knowledge gaps from literature, practice, and Philips - Lack of understanding of attributes of VP - Lack of understanding of influence of scope of the innovation on attributes of VP - Lack of structure to VPC process - Lack of tools and processes to define attributes of VP
Scope of research	Below is the scope of the research - From kick-off of VPC process until finalisation of concept - A single organisation will be observed Cases or projects of the organisations will be studied
Research objective	Objective of the research is as follows: To prepare theoretical frameworks showing the relationship between attributes of VP and acceptance of the concept by consumers which can be used by managers as a step by step guide to design a sprint of VPC process based on scope of innovation.
Research questions	Main research question: What is the relationship between attributes of VP and acceptance of the concept by consumers? Sub-research question: - Which are the attributes of VP that influence acceptance of the concept by consumers? - What are the most critical attributes and their role? - How do these attributes change with the scope of innovation? - What is the practical significance of attributes of VP from manager point of view? -

Table 1: Summary of chapter 1

Chapter 2: Research method

2.1 Research design

Chapter 1 explains the research gap in academia and practice. Based on these research gap research objectives is defined which focuses on establishing relationship between attributes of VP and acceptance of the concept by consumers which can be used by managers as a step by step guide to design VPC pathways. So, the first step of the research is to define the conceptual model from literatures. Table 2 further shows the characteristics of the research to establish conceptual model.

Research objective	Research method	Perspective of VP	Type of research
To establish relationship between attributes of VP and acceptance of concept by consumers (VPC process)	Literature review	Consumer	Exploratory research

Table 2: Characteristics of research to establish conceptual model

Literature review is a desk research approach which is used for data gathering. Literature study uses existing academic research work from scientific journals, books, and white paper (Verschuren, Dooreward, Poper, & Mellion, 2010). For this thesis, the scientific literature on the area of interest are searched in different bibliographic database e.g. Google Scholar, Scopus, and Web of Science to gain more knowledge on the subject. Additionally, Boolean operators like “AND,” “OR” and “NOT” are used to combine several keywords to enhance the quality of search further. The search process is further refined using the filters such as times cited and usage count. Furthermore, generation of citation report feature is used in Web of Science, which provided h-index and ranked journals based on average citation including year-wise citation data. Moreover, the bibliography (reference list) of selected journals are referred to find other relevant books and articles. The search process is further streamlined as per the document type and authors name to find books on related topics. The keywords for search are “value proposition”, “value proposition”, “fuzzy front-end innovation”, and “concept”.

The aim of the literature review is to establish the conceptual model. The dependent variable of this model is concept. The concept is validated by the consumer. Hence, acceptance of the concept by consumer plays a significant role. VPC process leads to development of concept. Hence, it is essential to keep consumer-centric VP perspective.

Furthermore, the type of research classified as exploratory research which is also known as the hypothesis-generating research. From initial research as mentioned in chapter 1, we have not found any prior hypothesis which shows the relationship between VP and acceptance of the concept by consumers as per our knowledge. Additionally, this research is mainly dependent on literature study, case study, and expert interviews to collect and analyse the data to study and establish this relationship. As per DiCicco-Bloom & Crabtree, 2006; Johnson &

Christensen, (2008), if the problem is not studied clearly then exploratory study can be the most useful research method. Hence, this research method is chosen for further study.

After establishing the conceptual model, it needs to be validated with suitable cases. Hence, Royal Philips is selected for further study. So, the context of the research is the VPC process at Philips. The reasons behind selecting Philips are as follows:

- Philips is one of the most innovative companies in the Netherlands. It has a history of more than 100 years of innovation. It has established well-structured VPC process throughout these years of experience. This will help to understand the key attributes of VP through the case study.
- Philips follows steps of FFEI involving inspiration, ideation, and implementation. This will help to understand the attributes of VP which play a significant role at each stage of the VPC process.
- As a large multi-national organisation Philips has a well-structured documentation process. It has designed specific tools and processes which helps VPC process. So, these tools and process can be studied to define the key attributes of VP and concept.
- Philips has a diverse portfolio of products. They frequently innovate and upgrade to stay competitive in the market. This will help to choose cases based on the scope of innovation (disrupt and incremental).

This research follows the single-case design method. It satisfies the criteria for single-case design as it represents cases where a well-formulated theory on VPC process is tested (R K Yin, 2003). This well-formulated theory is established from academic literature and best practices followed at Philips. A set of proposition and circumstances has been defined which will be validated and extended further based on the case study research (R K Yin, 2003). This research involves more than one unit of analysis. These cases are selected based on the level of newness i.e. renew, expand, and disrupt projects. In this thesis the level of newness is considered as the newness to the organisation. Projects which involves disrupt innovation are known as disrupt project. Projects which involves incremental innovation are known as renew project. Mixed type is the innovation for specific product type or category, but innovation knowledge is available for developing other products. However, in most cases, it is required to innovate features specific to product. So, it shares the characteristics of disrupt as well as incremental innovation. It is known as expand project in Philips. So, attributes influencing value proposition creation process for renew, expand, and disrupt project is the sub-unit of analysis. Hence, this is classified as an embedded single case study (Figure 4). It is not a multiple-case study as the research is not focused on only individual sub-unit level (renew, expand, and disrupt project) but rather as a larger unit of analysis of VPC process at Philips (R K Yin, 2003).

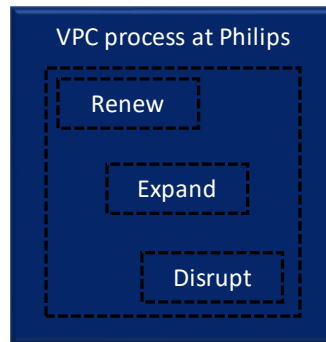


Figure 4: Embedded single case study

2.2 Search and selection of cases

Data collection methods

Corporate slides, VPC handbook, online tools, and training kit are studied to understand the VPC process, VP tools, processes, and concept test followed at Philips. Additionally, Philips central drive checked which contains information of VPC pathway and concept test results of all projects. Discussion with expert provided more insights on cases.

Case selection criteria

From Philips central drive many cases are found where the VP and concept test has been performed individually. However, there were very few cases obtained where both VPC pathway and concept test followed. The numbers of cases further reduced where VPC process is followed as per current guideline. The current guideline means online VPC process, VP tools, processes, and concept test are documented and conducted. It is essential that the cases followed the VPC process and concept test due to the following reason.

If cases have followed the VPC process i.e. inspiration, ideation, and implementation, it will help to identify the key attributes of VP at different stages of VPC through case analysis and interview. Similarly, the key attributes of the VP can be understood from VP tools and processes. These tools and processes are used to define attributes of VP and concept. Table 16 shows the tools and processes which are used to find specific attribute of VP. Hence, understanding different tools and processes can help to find key attributes of VP. The concept test score is important to know to understand the acceptance of the concept by consumer. At Philips, the concept test is performed quantitatively. This includes 100 to 2000 consumers based on the requirement of the cases. If the concept test score is high, then the concept has high acceptance by consumers. So, this provides a reliable way to check acceptance of the concept by consumers. Besides this importance is given to find cases from all three categories (renew, expand, and disrupt). This will help to generalize the influence of scope of innovation on attributes of VP. Below are the criteria defined for the selection of cases based on above-mentioned argument.

1. VPC process is followed (including online and offline VPC tools and processes)
2. Concept test is performed
3. Project category can be identified as Renew / Expand / Disrupt

However, very few cases have fulfilled above criteria due to which whole PH category is considered for the study. The initial plan was to use home care category, but total Personal Health segment is considered to get reasonable number of cases.

Steps followed to finalise cases (Pre-discussion)

Pre-discussion is essential to understand more about VPC process, tools, best practices, and concept validation used for the cases. This also ensures that the case fulfills the set criteria. It also helps to select the respondent for interview.

The central VPC project co-ordinator was contacted to gain further information about cases. The central VPC project co-ordinator had provided the details of project type and name of core project team members. Then, the core team members are contacted to get more information on the individual case. Mostly, the product manager, product developer, PRC (Product Research Centre), innovation and development, and market intelligence team was contacted as they are more involved in the FFEI. A preliminary discussion of 30 minutes scheduled and planned with each member. Initially, a total of 12 projects is nominated for preliminary discussion based on the above case selection criteria. Appendix 1 provides the details of the projects and their selection or rejection reasons. Hence, a total of 36 pre-discussions are conducted considering 3 core team members from each project. Total time consumed in case selection discussion is 18 hours. The first 15 minutes of the pre-discussion includes a presentation about the thesis and the next 15 minutes the participant explained the details of the case. The focus was given to understand case details, VP tools, processes, validations, online tools, and concept test. Total of 9 cases selected out of 12 cases based on the preliminary discussion. The details of the 9 cases will be discussed in Chapter 5.

2.3 Set up of interview

Formulation of interview

The semi-structured interview is planned to conduct this research as it provides a perfect balance of an open-ended interview and the focus of structured interviews (Clifford, Cope, Gillespie, & French, 2016; Harrell & Bradley, 2009). Additionally, this method is most suitable as it is the early stage of exploratory research. This research aims to collect and analyse data from the interview so that the conceptual model can be framed to show the relationship between attributes of VP and acceptance of the concept. Open questions will help to get generic data about VPC process and concept test. Furthermore, structured questions are also required to validate the conceptual model framed from the literature review and desk research at the organisation. Hence, semi-structured interview is the most suitable method of interview for this research. From literature review and pre-discussion questionnaire is framed. Appendix 2 has shown the semi-structured interview questions. First two question and the last question of the questionnaire are open question. Rest of the questions are structured questions. Table 3 shows the interview structure and characteristics.

Method:	Semi-structured interview
Case and interviewee selection method:	Pre-discussion Total number of cases: 12 Number of participants per case: 3 Total number of participants: 36 Duration of discussion: 30 minutes (15 minutes presentation on thesis and 15-minute discussion on case) Total time consumed: 18 hours Discussion is not recorded.
Details of interviews:	Total number of cases: 9 Number of interviewees per case: 2 Total number of interviews: 18 Duration of interviews: 1 hour Total time consumed: 18 hours Interview is recorded.
Objective:	Establishing relationship between VP and acceptance of the concept by consumers
Key input for interview:	- Case study details and questions - VPC online tool detail of the project - VP tools and processes - Concept validation tools and process - Concept test
Key output of the interview:	- Leading attributes - Key attributes for that project type (Renew / Expand / Disrupt) - Key tools and processes - Relationship between VP and concept
Interviewees:	Experts in VPC process, VP tools, processes, validations, and concept test
Post result analysis discussion	Total number of participants: 10 (one to one discussion) Duration of discussion: 30 minutes to 1 hour (Based on time availability) Total time consumed: 5 hours Discussion is not recorded.

Table 3: Interview structure and characteristics

Selection of respondent

The interviewees for the 9 cases are selected based on the pre-discussion and their availability. Total two interviewees got selected for each case. The respondents are from product management, market intelligence, PRC, or product development team as these teams are involved in market, consumer, and product research process of FFEI.

The interviewees are selected based on following criteria

1. The interviewee has knowledge on VPC process, VP, and concept test
2. The interviewee must be a core team member of FFEI for that specific project
3. The interviewee has in-depth knowledge of the case

Pre-test

Pre-test played a significant role to define the length and structure of the questions for the interview. Two interviews conducted to understand the quality of the interview before conducting actual interview. The interview duration was kept 1.5 hours for the pre-test. However, it was decided to reduce the interview duration to one hour to manage the repetitiveness and time availability of interviewees. Furthermore, the structure of the question is changed. Initial and last questions are kept broad and open-ended to avoid influencing the interviewees. However, other questions are more focused and specific. Appendix 2 shows the details of the questions prepared for interviews based on the feedback of the pre-test. The quality of the audio recorded during the interview is also checked and transcribed to ensure the quality of the process before taking final interviews.

Structure of interview

The questionnaire is finalised for the interview based on the feedback of the pre-test as mentioned in Appendix 8. Emails are sent to the interviewees which include questionnaire, confidentiality agreement, and details of the structure of interview such as interview timing, duration, place, and date etc. Confidentiality agreement also mentioned that the case name, interviewee name, job title, and position will not be disclosed to maintain the confidentiality of the project. Appendix 3 contains the confidentiality agreement. The interviews are conducted one-on-one basis at Philips Amsterdam. The discussion was recorded to transcribe it later. In some interviews, the participant had given additional time to further discuss the cases to get a better understanding of it.

2.4 Case analysis methods

Thematic analysis will be used to transcribe, code, and label the qualitative data obtained from the interviews. It can be defined as “a method for identifying, analysing, and reporting patterns within data. It minimally organises and describes the data set in detail” (Braun & Clarke, 2006). Qualitative data is arranged per theme manually for all 18 interviews. All frequently used data are coded and arranged as per the theme.

Transcribing

The interviews are recorded for transcription purpose. Additionally, notes are taken to help the transcription. The audio recordings are transcribed using Otter.ai software. However, the transcription is adjusted manually to make as accurate as possible. The confidentiality agreement is sent to all interviewees. Transcriptions are not attached to the thesis to ensure confidentiality of project and product information. The name, department, and position of interviewees are not disclosed to ensure confidentiality of data. Findings of the transcription are discussed with the participants’ in post-result analysis discussions.

Coding and thematic network

It is necessary to code qualitative data to study and analyse thematic networks (Attride-Stirling, 2001). Coding can be performed after transcribing the notes and audio recordings. Coding is performed manually with the help of MS excel tool for this thesis. Manual coding is preferred for this thesis is due to the following reasons. First, the physical representation of the conceptual models for attributes of VP gives a clear idea of interviewees point of views. Furthermore, it helps to group each attribute accurately under the right category which

increases the validity of the coding. Second, this research involved different types of product and category. So, the domain knowledge of the interviewees and practices followed at each category are diverse. It is difficult to compare and associate each variable correctly by electronic coding. To perform coding, first, the statements for each attribute of VP are identified and coded. Then, codings are merged if interviewees used different words to express the same meaning. This helps to reduce overlap and redundancy of answers. For examples, first, the transcripts are checked to identify statements related to unmet consumer need. Then, it is noted that consumer requirement, pain points, consumer frustration, want, desire etc. are the alternate terms which are used for unmet consumer need. These are individual codes which represent unmet consumer need. So, to avoid redundancy all these codes are merged, and the code group is named as unmet consumer need. Figure 5 shows the pictorial representation of a single coding group. It shows the coding for unmet consumer need. Similar activities are performed to code rest of the attributes of VP. Table 4 shows the coding and coding groups created from interviews. Pictorial representation of the coding groups of all identified attributes of VP is shown in Appendix 4. Then, the thematic network is formed. Thematic network helps to establish the relationship among different coding. In this stage, different themes are linked directly or indirectly to establish the relationship between different variables. So, in this thesis, thematic network is used to establish the relationship between each coding group (attributes of VP) and the acceptance of the concept by consumers. Appendix 5 shows the thematic network used to show the relationship between attributes of VP and acceptance of concept by consumers.

Code group	Codes
Unmet consumer need	Consumer need, consumer requirement, consumer pain points, consumer frustration, consumer demand, consumer want, desire
Superior offer	Value package, differentiator, superior value, product leadership, product superiority, uniqueness, benefits, superior offers, value package
Competitive price	Cost, price, competitive price, offer price, nominal cost
Additional non-financial cost	Time, effort, search, psychic, risk, perception, uncertainties
Involvement of consumers	Co-creation, involvement of consumers, focus group, consumer participation, virtual community, target consumers, participation of potential buyers, creative consumers
Involvement of multi-functional team	Involvement of diverse team, involvement of multi-functional team, involvement of different domain experts, cross-functional team, involvement of shoppers, involvement of market, involvement of external member, experts, champions
Emotional appeal & brand influence	Touch point, emotional hook, emotional bond, consumer loyalty, consumer attachment, consumer relationship management, brand influence, brand association, loyalty, brand reputation, brand positioning, brand superiority
CVP formalisation	Best practices, tools, processes, rituals
Leadership support	Higher management, top management, business leader, higher authority
Other aspects (Social / Environmental / Ethical / Sustainable)	Social, environmental, ethical, sustainable, legal, values, privacy
Acceptance of the concept by consumer	Concept test, concept score, market success score, BASE test score, concept validation

Table 4: Code used for different attributes

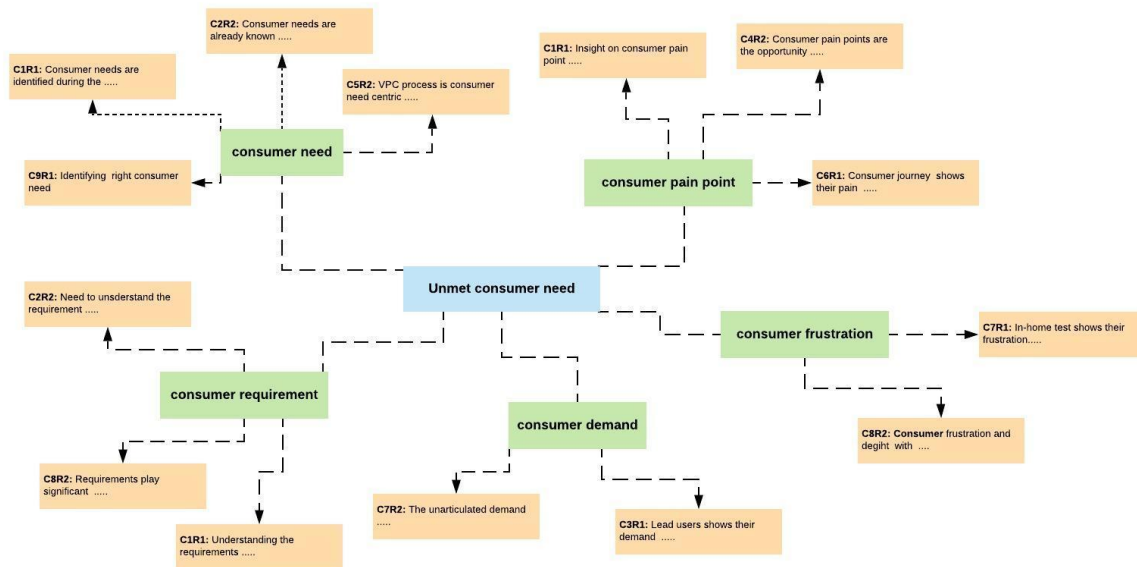


Figure 5: Example of code and coding group

Post-result analysis discussions

Interviewees are invited individually for discussion on findings after analysis of results. The initial plan was to invite all 18 interviewees. However, all interviewees are not available. So, interview results are discussed with 10 interviewees and based on their feedback required changes are incorporated. The duration of the discussion varies from 30 minutes to 1 hour based on availability. Discussion is conducted in Philips Amsterdam. It is not recorded so that participants can freely put forward their perspective on the findings.

2.5 Research quality

Validity

Validity checks if the research truly measures what it supposed to measure and the truthfulness of the result. So, it checks if the research instruments truly measures the research objective (Winter, 2000). In this research, (i) construct validity (ii) Internal validity (iii) External validity has been verified. Validity is achieved by referring to multiple sources for data collection. This process started with the literature review. Literatures are referred from different bibliographic database e.g. Google Scholar, Scopus, and Web of Science. Most of the literatures referred for this thesis are scientific literature with the high citation number. Research questions are framed from knowledge gap in academics and practice. To find the main research question a conceptual model is framed from literatures. The findings of the literature are verified with real-life cases and desk research at selected organisation. The cases for interviews are carefully chosen which satisfy all defined criteria as mentioned in section 2.2 such as VPC process has

completely followed along with concept test and well documentation of tools and processes. Thorough discussion with core team members of projects conducted to finalise the cases. Then, interviewees for semi-structured interview is selected based on their knowledge in VPC process, the result of pre-discussion of cases, involvement in the project from start till end, and thorough knowledge in the selected cases. After the evaluation phase, the results are validated with interviewees to get more insights into the result. Table 6 shows the measures are taken to ensure validity of the research.

Reliability

Reliability can be defined as the degree to which the results of the research are consistent and repeatable. In this thesis, the inter-rater reliability is checked by conducting two interviews per case. So, the consistency and repeatability checked from the answers of both interviewees on the same case. Initially, three interviews are conducted for case 1 but after analysis of the results it is observed that results are similar in all three interviews. Hence, for other cases two interviews are conducted instead of three.

Similarly, internal consistency reliability is checked by defining research protocol and giving all interviewees same questionnaire. The conceptual model, attributes, tools and processes used to define these attributes are checked in 9 cases of different product and category to ensure the consistency and repeatability. Table 6 shows the measures are taken to ensure reliability of the research.

Research-independence

This research is conducted by a single person. The bias and subjectivity are tried to be kept minimal from the researcher perspective as the researcher is not associated with the cases, real-life projects, and defining the VPC process followed at the specified organisation.

Triangulation

Triangulation helps to strengthen the credibility of the research. This is the method followed to improve the validity and reliability of the research and its findings. The goal of triangulation is to follow at least three way verify a procedure, piece of data or finding (R K Yin, 2003). Table 5 shows different data collection methods used to ensure triangulation.

Data type	Data Source
Academic literature	Academic literatures mainly focusing on value proposition, consumer value proposition, new product innovation, fuzzy front-end innovation etc.
Organisations internal data	Organisations VPC training kit, corporate slides, documented projects, intranet (knowledge portal / share point)
Cases	Cases are selected from different categories and consumer products e.g. home care device, steamer, iron, beauty products etc.
Interviews	Interview of experts from different fields e.g. innovation management, product development, product management, marketing and communication, consumer insight etc. based on their involvement in the selected cases

Scientific and professional Literature	Scientific and professional literatures of other organisation to understand VPC and innovation processes followed in similar market segments
Patents	To follow new innovations in consumer marking segment related to vacuum cleaning industry

Table 5: Triangulation sources

Methods of validity & reliability	Recommended practical implementation	Implementation in this thesis
Construct validity	-To establish correct measures for studying concepts	-Use of multiple sources for literature review and desk research at the organisation -Use of multiple cases and discussion with multiple interviewees per case -Key information providers review the draft report and research results
Internal validity	-To establish causal relationship between independent and dependent variables	- Conceptual framework is framed from literature review - This framework is validated with the desk research at organisation - Pre-discussion, semi-structured interview, and post-result analysis discussion with selected VPC experts to validate the conceptual framework
External validity	-To establish domain where finding can be generalised	-Checking the framework and research questions with multiple interviewees from different domain knowledge e.g. innovation & development, market intelligence, consumer research, product manager etc. - Validating the research questions and conceptual model with different consumer-electronic products e.g. home care devices, garment care devices, personal care devices etc. - Validating the research questions and conceptual model with different organisation category which follows their specialised process, tools, and methods
Reliability	-Shows that if data collection procedures are repeated, it will give same results	-Use of case study protocol -Use of same questionnaire for main interview - Use of same questions, documents, and methods for pre-discussion, main interview, and post-result analysis discussion

Table 6: Validity and reliability

2.6 Summary

This chapter broadly describes the research design as shown in Figure 6. It elaborately explains the literature review, data collection methods, case selection criteria, respondent selection criteria, interview set-ups, data analysis, and quality check methods. To perform above-mentioned tasks researcher followed three phases of discussion (i) pre-discussion (ii) semi-structured interview (iii) post result analysis discussion. Table 7 summarises the key aspects of chapter 2.

Research design	Embedded single case study Unit of analysis: VPC process at Philips Sub-unit of analysis: Renew, Expand, and Disrupt
Data collection methods	Literature reviews Real-life cases of Philips
Case selection criteria	Case selection criteria: - VPC process is followed (VPC tools and processes) - Concept test is performed - Project category can be identified as Renew / Expand / Disrupt Case selection methods: Pre-discussion with core team members Total number of cases: 12; Total number of interviews: 36 (3 interviews / case); Duration of each interview: approximately 30 minutes
Interview method	Semi-structured interview Total number of cases: 9; Total number of interviews: 18 (2 interviews / case); Duration of each interviews: 1 Hour
Result evaluation method	Total number of participants: 10 (one to one discussion) Duration of discussion: 30 minutes to 1 hour (Based on time availability) Total time consumed: 5 hours Discussion is not recorded.

Table 7: Summary of chapter 2

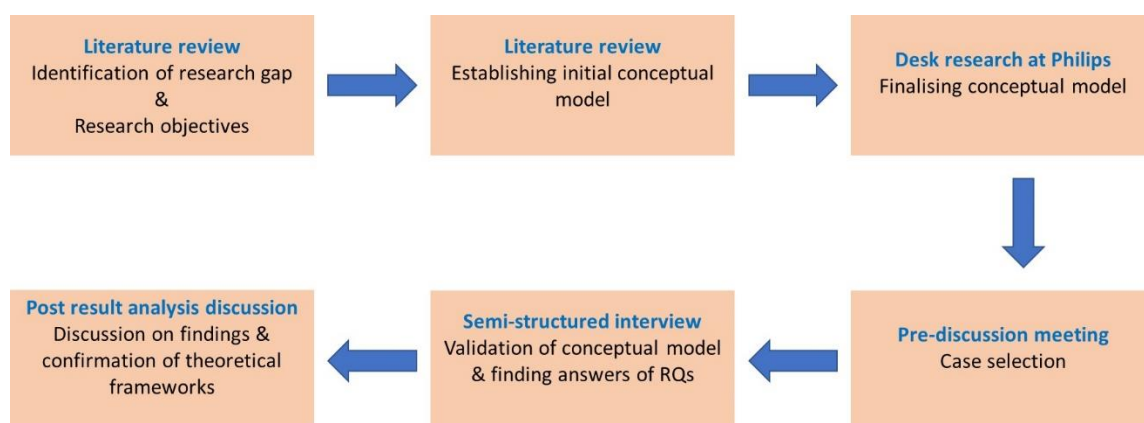


Figure 6: Research structure

Chapter 3: Literature review

3.1 Value proposition creation (VPC) process

Value proposition creation is a fuzzy front-end innovation process. This process starts with opportunity exploration and ends at finalisation of the concept (Kim & Wilemon, 2002). This process leads the idea to develop into concept. Tim Brown, executive chair of IDEO, defined these design thinking process as Inspiration, Ideation, and Implementation (Adikari, McDonald, & Campbell, 2013; “IDEO Design Thinking,” 2019). Furthermore, Gassmann & Schweitzer (2013) defined VPC process as identification of a problem or opportunity, idea generation and idea evaluation, and concept generation and concept evaluation. By combining these two approaches the VPC process in thesis can be described as follows:

1. Inspiration: Identification of a problem or opportunity
2. Ideation: Idea generation and idea evaluation
3. Implementation: Concept generation and concept evaluation

Inspiration: Identification of a problem or opportunity

This phase is described as the strategic arena setting phase. This is the phase where opportunities are identified and prioritised based on company’s portfolio, capability, and available resources. Furthermore, it should match with company’s vision, mission, and goal. So, this phase should involve inter-functional and interdisciplinary teams. The project should consider different perspective from strategy point of view. The key aspect of this phase is to understand the consumers need or expectation. So, the problem is identified with empathy and human centeredness by observing and understanding target consumers (Adikari et al., 2013). As per BMW engineer on opportunity exploration phase: “Our task is to provide the customer with something that fills the customer with real excitement when he gets it, but that he never knew he was seeking in the first place (Gassmann & Schweitzer, 2013).” However, capturing consumer need is not easy as consumers often tell what engineers already know. The success of the product depends on exploring the latent consumer needs and anticipating future requirements or wishes (Gassmann & Schweitzer, 2013).

Ideation: Idea generation and idea evaluation

Ideation phase involves generating, prioritising, and validating ideas to develop final solution. As per Nobel Prize winner Herbert Simon, the key to problem-solving is not only finding the alternatives but finding the right problem. Designers at IDEO, the famous global design company, try to find the sweet spot while designing any new product. The sweet spot is the point where maximum impact can be created on consumers at minimum effort. So, it shows what consumers value the most (Gassmann & Schweitzer, 2013). So, in this ideation phase, innovators find as many as possible ideas to improve value for consumers and meet their needs. So, the trade-off of different ideas takes place to understand which ideas serve consumers in better way. So, these propositions and ideas are validated with consumers. Ideas are prioritized based on consumer feedback.

Implementation: Concept generation and concept evaluation

Implementation phase focuses on providing viable solution to the problem. Concepts are the viable solution to the identified unmet need in VPC process. Concepts are developed from ideas based on the feedback of the consumers. The concept can be defined as a visual and written description which includes key insights, its primary features, and customer benefit (Belliveau et al., 2004). These concepts are validated with potential buyer. The acceptance of the concept by consumer is gauged with different parameters such as “*interest*”, “*liking*”, “*preference*”, “*intent-to-purchase*”, and “*the reasons to believe*” (Cooper, 1988). Based on concept test score manager takes GO/KILL decision before entering the full-scale product development stage. It decides if the concept goes for further development or not.

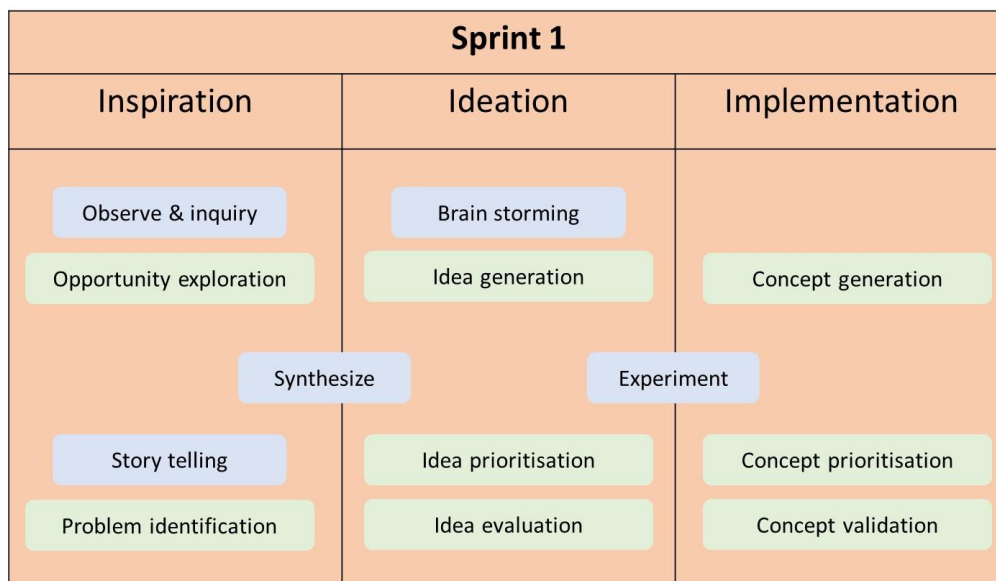


Figure 7: Value proposition creation process
Inspired by design thinking process model of Tim Brown (Adikari et al., 2013)

The duration of the activities such as opportunity exploration, idea, concept generation, and validation and detail study depend on scope of innovation i.e. incremental or disruptive innovation. Uncertainties of consumer, market, technical insights, and scope of actions are high during the beginning stage of innovation. This leads to high number of iterations of idea, concept generation, and evaluation. Furthermore, it does not follow sequential order of activities (Gassmann & Schweitzer, 2013).

However, following detail and systematic approach to create value proposition as shown in Figure 7 can help to generate the right ideas to fulfil consumer needs. The light blue boxes in Figure 7 represents the attributes taken directly from Tim Brown’s proposed model and the light green boxes represent the adoption done by the thesis author based on the requirements of the thesis. It shows the structure of one sprint of VPC process. This should be repeated until generating a concept which will have features and properties desired by consumers.

3.2 Value proposition

This section focuses on defining the value proposition.

Anderson et al. (2006) stated that there is no single definition of the value proposition. However, most of the literature stated that it is a strategic process used by companies to communicate the value it provides to its consumers (Payne et al., 2017). It differentiates and provides competitive advantage to company compared to its competitors and alternative. Similarly, Kaplan and Norton (2000) stated that the value proposition is a strategic approach for the company to differentiate itself from its competitors and effectively utilise these differences to attract and improve consumer relationship.

However, there are different basic aspects of the value proposition. Bower & Garda (1985) defined three main parameters of value proposition such as consumers' needs, expected the performance of the product or service, and total cost consumers are willing to sacrifice for the offer. Above statement is supported by Kambil, Ginsberg, & Bloch (1996a) who stated value proposition as the superior value package company is offering by its product features and complementary services to fulfil consumer needs. Fulfilling consumers need is a big aspect of value proposition creation.

Treacy & Wiersema (1995) defined value proposition through three parameters: "operational excellence", "customer intimacy", and "product leadership". Operational excellence focuses on providing product or service to consumers at least cost and with the highest operational efficiency. Customer intimacy mainly aims to carefully understand and translate consumer needs. Product leadership is defined as the ability to provide a superior offer with unique value and high performance. These three parameters define the benefits of the product.

Zeithaml (1988) suggest that for some consumers the value is when the product is providing required functional benefit at a comparatively low price and for others. In simple words, it can be stated as what I get vs. what I give. Cost or price paid by consumers can be monetary or non-monetary. From the consumer perspective, it is the positive or negative consequences they perceive which determines whether they will avail that product or not (Rintamäki, Mitronen, & Kuusela, 2007; Slater, 1997; Woodruff, 1997b). The positive consequences are the benefits consumers avail from the product whereas the negative consequences are the monetary and non-monetary cost consumers are paying to avail these benefits e.g. cost, search effort etc. (Gale & Wood, 1994; Zeithaml, 1988a).

To summaries, VP is a strategic approach for organisation to provide a value package that fulfills consumer needs. *The definition of VP which is used in the paper is "A strategic management decision on what the company believes its customers value the most and what it can deliver that gives it competitive advantage (Rintamaki et al., 2007, p. 3)."*

This definition of the VP is selected for the thesis as it focuses on value customers believes the most and also on the organisation's capability to deliver it. The thesis focuses on developing the framework for the concept which is accepted by consumers. Furthermore, it also describes the ability of the company to deliver these values which are dependent on finding the attributes of VP needed by consumers the most and developing the concept from it.

Appendix 6 summaries the key definitions of the value proposition.

3.3 Origin and evolution of VP

This section focuses on describing the origin and development of value proposition over the period of time.

The VP concept was originated by Bower and Garda (1986). They proposed “value delivery system” which focuses on choosing, providing and communicating the value proposition. This concept helped to differentiate and communicate benefits of the product, unlike traditional path which focused on making and selling products based on company’s preference (Skålén, Gummerus, von Koskull, & Magnusson, 2015). Lanning and Michaels (1988) further developed this concept and emphasised on the benefit the product is offering, and the cost consumers are willing to pay for the product. Later, Lanning and Phillips (1992) focused on the importance of understanding the key desirable benefits of targeted consumers. They also emphasise the importance of market segment on acceptance of product by consumers. However, after a decade of origin of VP concept - it became widespread because of the bestselling book on value discipline by Treacy & Wiersema (1995b). In this book, the author argued that the organisation should focus on any of three value discipline: product leadership, operational excellence, or customer intimacy. This will help the organisation to strengthen its proposition. Then the concept of value map was introduced which define the relative position of different companies in industry along cost and performance axis. The value frontier defines the maximum performance feasible at any moment for a given cost to the customer (Kambil, Ginsberg, & Bloch, 1996b). Later, Lanning (1998) re-evaluated his previous work and recommended that organisation should define its value dimension by continuous observing its consumers throughout the consumption cycle. Smith and Wheeler (2002) further worked on Lanning’s concept. They suggested organisations to focus on delivering superior value and gaining knowledge on consumer experience.

Then, Anderson et al. (2006) identified three key aspects of VP development in business scenarios. These attributes are stakeholders’ benefits, the company’s points of difference and resonating focus. As per the authors, resonating focus is the key benefits organisation is offering to its consumers and the company’s point of difference is the benefits which differentiate it from its competitors. Furthermore, they suggested managers take the last approach compared to the first approach. Last approach focuses on developing products based on the values consumers prefer whereas the first approach focuses on developing the product first and then trying to sell it to target consumers. Rintamaki et al. (2007) pointed out four value dimensions of VP as economic, functional, emotional, and symbolic. These four dimensions will provide competitive advantage to the organisation by identifying gap between consumer and supplier perception on offered value and experience.

Ballantyne (2003) focused on the two-way reciprocal nature of the VP. This is also known as co-creation of value. Two-way reciprocal nature of the VP or co-creation of value suggests the involvement of consumers in creating, developing, and practicing compelling value proposition (Ballantyne & Varey, 2006; Ballantyne, Frow, Varey, & Payne, 2011; Lusch & Vargo, 2014; A. F. Payne, Storbacka, & Frow, 2008; Kowalkowski, Ridell, Rëndell, & Sörhammar, 2012). Ballantyne (2003) is the first author who strongly stands for co-creation of the value proposition. Similarly, Lusch and Vargo (2006) focus on the role of co-creation in service-dominant industries. They emphasised on the trade-off between benefit and sacrifices which determines the acceptance of product, service, or product-service mix. Furthermore, active involvement of wide range of actors and stakeholders plays a significant role to deliver winning value proposition (Ballantyne, Frow, Varey, & Payne, 2011; M. Lanning, 2003; Mish &

Scammon, 2010). This helps to bring different perspectives from multiple stakeholders into one table. Emerson (2003) focused on the importance of incorporation of social, environmental, and ethical issues in value proposition creation process. Müller (2012) argued on the need for incorporation of sustainability aspects to the VP.

Additionally, recent studies on VP focused on aspects of innovation and corporate ventures. Lindic and Silva (2011) defined five key elements of VP which can drive innovation: performance, ease-of-use, reliability, flexibility, and affectivity. Skålén et al. (2015) analysed eight companies to understand VP in service-domain. Their findings concluded that VP are configurations of different practices and resources which help organisations to differentiate their service from competitors. Appendix 7 summaries the evolution of VP over period of time.

This helps to understand the evolution of VP from value delivery system by supplier to consumer-focused value defining system, product leadership to co-creation, involvement of organisation specific VP experts to involvement of multiple stakeholders, product feature centric proposition to emotional and symbolic association. Study of evolution of VP helps to identify and classify the key attributes of VP. This will be further discussed in coming sections.

3.4 Attributes of VP

This section identifies and discusses the key attributes of the VP from the available literature. These attributes are derived from the literature study on value proposition. The origin and evolution of VP especially helped to identify the introduction and evolution of different key attributes of VP until now. *The key attributes found from literature study are as follows: unmet consumer need, superior offer, competitive price, additional non-financial cost, involvement of consumers, involvement of stakeholders, emotional appeal and brand influence, VP formalisation, leadership support, and other aspects (social/environmental, ethical/sustainable). These attributes are further categorised as consumer, product, market, process, organisational, and miscellaneous attributes. Unmet consumer need is the consumer attribute, superior benefit is the product attribute, competitor price is the market attribute. Additional non-financial cost, involvement of consumers, involvement of stakeholders are the process attributes. Similarly, VP formalisation, leadership support, emotional appeal, and brand influence are the organisational attributes. Other aspects (social / environmental / ethical / sustainability) is categorised under miscellaneous attribute.*

Consumer attribute is the characteristic of consumers. In this thesis, unmet consumer need is categorised as the consumer attributes as it represents the target consumers pain, frustration, and unmet requirements. Superior offer is considered as the product attribute as it is focusing on the benefit the product is offering due to its features and application. Competitive price is recognised as the market attribute. It can be determined based on the company's market positioning, competitors' pricing, and value offering, and superiority of the value package it is offering to its consumers. Additional non-financial cost, involvement of consumers, and involvement of multiple stakeholders are categorised as the process attributes as these define the characteristics of VPC and concept generation process. Organisational attributes consist of VP formalisation, leadership support, emotional appeal, and brand influence. These attributes define the unique properties of the organisation. It was difficult to categories emotional appeal and brand influence as it has characteristics of both process and organisational attributes. Although it inherently comes under organisational attribute but its dependency on contextual parameters can make it as process attribute. For example, the impact of this attribute depends on product type, target market, and competitor positions.

These differences are checked during VPC and concept generation process. However, brand influence is the outcome of organisation reputation. Hence, emotional appeal and brand influence are categorised as organisational attribute. Other aspects (social/environmental/ethical/sustainable) is categorised as miscellaneous attributes.

Unmet consumer need

The starting point of VP is opportunity exploration. This process focuses on identifying the unmet consumer need which organisation can fulfil. Osterwalder, Pigneur, Bernarda, & Smith (2015) in the book value proposition design focuses on identifying customer job, customer pain and customer gain. Customer job represents the list of tasks which the customer wants to achieve. Customer pain is the lists of pain customers are facing to complete the task. Customer gain represents the economic, social, functional, and emotional benefits customers achieve by getting the job done. So, the success of VP depends on understanding customer job and finding out the customer pain which is most important for the customer to relieve. In the book Disciplined Entrepreneurship, Bill Aulet (2013) has mentioned that it is essential to spot the most important need of consumers out of all identified needs. Then further analysis should be done to understand if the need can be satisfied with the currently available solution or not. If the consumer pain cannot be relieved by available product or method, it should be classified as unmet consumer need. Organisation should focus to tap into the market segment where it can exploit the benefit by catering the unmet consumer need.

Superior offer

After identifying the most important unmet need for consumers organisation should focus on catering this need with its offer. Osterwalder et. al (2015) defined this process as creating value for the consumers. They defined the key elements of this process as gain creators, pain relievers, and products or services. Pain relievers represent the ways to relieve above targeted pains of consumers. Gain creators are the ways to creates cost-saving, positive emotion, positive social influence, and superior utility compared to existing products or services. Products and services can be the individual or combination of both which can perform required customer job by maximizing gain creators and pain relievers. As per Anderson et al. (2006, p. 95) company should list down all benefits consumers will receive from the market offerings. Then it should find out the point of difference from identified benefits compared to available alternatives and it should focus on one or two points of difference which can deliver the greatest value to consumers in the near future. So, superior offer define how product & service features are categorised and offered to satisfy customer needs. Value is created by differentiating on product attributes, e.g. design, service or support, complementary goods etc. (Kambil et al., 1996b). In most marketing literature superior offer closely relates to the values a company delivers to customers in order to cater their needs (Anderson, Narus, & Van Rossum, 2006b).

Competitive price

As per Barnes et al. (2009), customers define the value proposition of the company as per the following formula: $\text{Value} = \text{Benefits} - \text{Costs}$. So, the company which offers higher benefits at a lower cost compared to its competitors by providing similar goods can create a better value proposition. The major three elements of value propositions are capability, impact, and costs. Capabilities define up to what extent company can cater to the need of customers. Impact shows how effectively company satisfies the needs and cost refers to what customer is willing to pay

for availing the benefits (Barnes, Blake, & Pinder, 2009; Zeithaml, 1988; Slater & Narver, 2000).

Additional non-financial cost

In addition to the financial cost, non-financial cost plays a significant role in influencing the buying decision of consumers. As per Marques da Silva & Lindič (2011, p. 3), apart from financial costs consumers considers non-financial costs such as “time”, “risk”, “search”, “psychic”, and “effort”. The higher the perceived benefit compared to perceived cost, the higher the perceived value for the consumers. Barnes et al. (2009) suggested these non-financial costs such as time, convenience, perceived risks, effort etc. has equal importance for company as well as it is for consumers. The higher the effort and time spent by companies to identify right consumer needs and ways to fulfil it, the higher is the chance of success of the value proposition. Kambil, Ginsberg, & Bloch, (1996b) also pointed out the importance of non-financial cost on buying behaviour of consumers.

Involvement of consumers

Recently value proposition has inclined more toward co-creation where both consumer and supplier work together to achieve the desired proposition (Ballantyne & Varey, 2006). Ballantyne (2003) is a key promoter of two-way reciprocal nature of value proposition. In the last decades, organisations’ offerings have shifted towards the service domain from good-dominated logic. In most of cases, organisations are offering product-service mix to cater to the greater needs of its consumers. Value is created by the consumers in service dominated industries whereas suppliers are responsible to provide these values (Lusch & Vargo, 2014; Vargo & Lusch, 2006). Lusch, Vargo, & Brien (2007) suggested that providers and consumers should co-create value proposition to create a win-win situation. As per Vargo & Lusch (2004), the value proposition in service industries are performed by (i) co-creation with different actors, consumers, and suppliers; (ii) assessment of situation by the actors in the context and situation; (iii) action and interaction of actors during use and collaboration of resources. Organisations should directly and actively co-create the value proposition with consumers (Lusch & Vargo, 2014; Vargo & Lusch, 2004, 2006). Furthermore, organisations and consumers should integrate resources while actively interacting to create value for each other throughout the entire product or service usage cycle (Grönroos & Voima, 2013).

Involvement of multiple stakeholders

Scholars also encouraged active involvement of a wide range of actors and stakeholders in many-to-many interactions to deliver winning VP (Ballantyne et al., 2011; M. Lanning, 2003). Organisations, consumers, actors, and stakeholders should argue their values to create proposition and also compare with its counterparts (Ballantyne, 2003; Ballantyne et al., 2011; Payne et al., 2017). Ballantyne et al. (2011) stated that integration of resources can happen between multiple actors and stakeholders or with the network of actors and stakeholders throughout the supply-demand chain. In addition, within the organisation different task groups are responsible for different functional role. This diverse knowledge of different stakeholders brings new ideas and it also reduces the risk associated with it. So, it is essential for the organisation to involve multiple stakeholders within and outside the organisation to gain different perspectives and to create a compelling value proposition.

Emotional appeal and brand influence

Brand reputation and customer relationship strongly influence the value proposition. Macdonald, Kleinaltenkamp, & Wilson (2016) stated that it is difficult for consumers to realize if the promised value will match with the realized values as claimed by companies. Hence, during the moment of uncertainty, for consumers the company with strong brand reputation has a higher impact compared to an unknown company. Strong brands create this impact on consumers by delivering promised values repeatedly over the period of time and by building a strong customer relationship. Strong customer relationship and loyalty programs help companies to gain the trust of its consumers and bring awareness about its superior product and services. This emotionally influences the buying decisions of consumers and makes the company more credible in the eyes of its consumer (Jaakkola & Alexander, 2014).

VP formalisation

VP practices and formalisation include processes and structures followed at the organizations to effectively create value proposition. Osterwalder et al. (2014) suggested that VP practices play a significant role in creating a compelling value proposition. Mostly consumers' actual needs are unarticulated. Hence, it needs effective tools, value proposition creation processes, and involvement of the multi-functional team to understand these latent needs. VP practices and formalisation have strong influence on idea generation, validation, concept generation, and concept validation. In addition, VP practices and processes play an important role in gaining market, consumer, and product knowledge.

Leadership support

MacKenzie, Podsakoff, & Rich (2001) stated that leadership support is important to align the strategic vision of the company with values, goals, and milestone of the company. It plays a significant role in allocating budget, capability, and resources of the organisation to design compelling value proposition. Furthermore, strong leaders have a remarkable influence in decision-making processes such as defining the market segment, source of business, business models, and alignment of the new product with current portfolio of the organisation.

Other aspects (social / Environmental / Ethical / Sustainable)

Emerson (2003) strongly advocated the incorporation of economic, social, and environmental issues during the value proposition creation process. Spickett-Jones et al. (2004) identified and argued for ethical concern. Patala et al. (2016) focused on environmental and social concerns which are relevant to VP. Müller (2012) was more inclined towards the incorporation of sustainability aspect in VP. Müller has proposed Sustainable Value Proposition Tool (SVPT) which helps companies to provide sustainable values to consumers through their product or service which is desired and beneficial to them. Table 8 shows the attributes of VP and literature references.

Sl No.	Attributes from VP	Literatures reference
1.	Unmet need, specific Consumer need	Chesbrough and Rosenbloom, 2002; Lindic et al. 2011; Kambil et al., 1996; Anderson et al., 2009; Treacy & Wiersema, 1995;
2.	Competitive price, perceived cost	Drucker (1999); Lindic and Silva, 2011; Kambil et al., 1996; Lanning, 1998
3.	Superior offer compared to competitors and alternative, perceived benefit	Afuah and Tucci, 2000; Caruana et al., 2000; Kambil et al., 1996; Trkman, 2010; Lindic et al. 2011; Anderson et al., 2006; Kim and Mauborgne, 1999; Popovic et al., 2009; Kambil, Ginsberg, & Bloch, 1996 ; Anderson et al.,2006 ; Anderson & Narus, 1998
4.	Co-creation, two-way reciprocal nature of the VP, involvement of consumer	Ballantyne, 2003; Ballantyne, Frow, Varey, & Payne, 2011; Ballantyne & Varey, 2006; Kowalkowski, Ridell, Rödell, & Sörhammar, 2012; Lusch & Vargo, 2014; A. F. Payne, Storbacka, & Frow, 2008; Lanning, 2003; Mish & Scammon, 2010; Day, 2011; Payne et al., 2017
5.	Involvement of multiple stakeholders	Ballantyne, 2003; Ballantyne, Frow, Varey, & Payne, 2011; Ballantyne & Varey, 2006; Kowalkowski, Ridell, Rödell, & Sörhammar, 2012; Lusch & Vargo, 2014; A. F. Payne, Storbacka, & Frow, 2008; Lanning, 2003; Mish & Scammon, 2010; Day, 2011; A. Payne et al., 2017;
6.	Additional costs: time, risk, search, psychic, and effort	Gronau, 1973; kambil et.al., 1996; Leibowitz, 1974; Leuthold, 1981; Mabry, 1970; Murphy and Enis, 1986; Lindic et al. 2011; Barnes et al., 2009
7.	Emotional appeal and brand influence	Rintamaki et al.,2007; Treacy & Wiersema, 1995
8.	VP formalisation	Payne et al., 2017
9.	Leadership support	Payne et al., 2017
10.	Incorporation of social, environmental, ethical, and sustainable aspects	Emerson, 2003; Reast, Kitchen, & Graham Spickett-Jones, 2004; Müller, 2012

Table 8: Attributes of VP and literature references.

3.5 Conceptual model

As mentioned in section 2.5 the key attributes of VP are unmet consumer need, superior offer, competitive price, additional non-financial costs, involvement of consumers, involvement of the multi-functional team, emotional appeal and brand influence, VP formalisation, leadership support, and other aspects (social/environmental/ethical/sustainable). These attributes are further categorised as consumer, product, market, process, organisational, and miscellaneous attributes. This led the foundation for the conceptual framework shown in Figure 8.

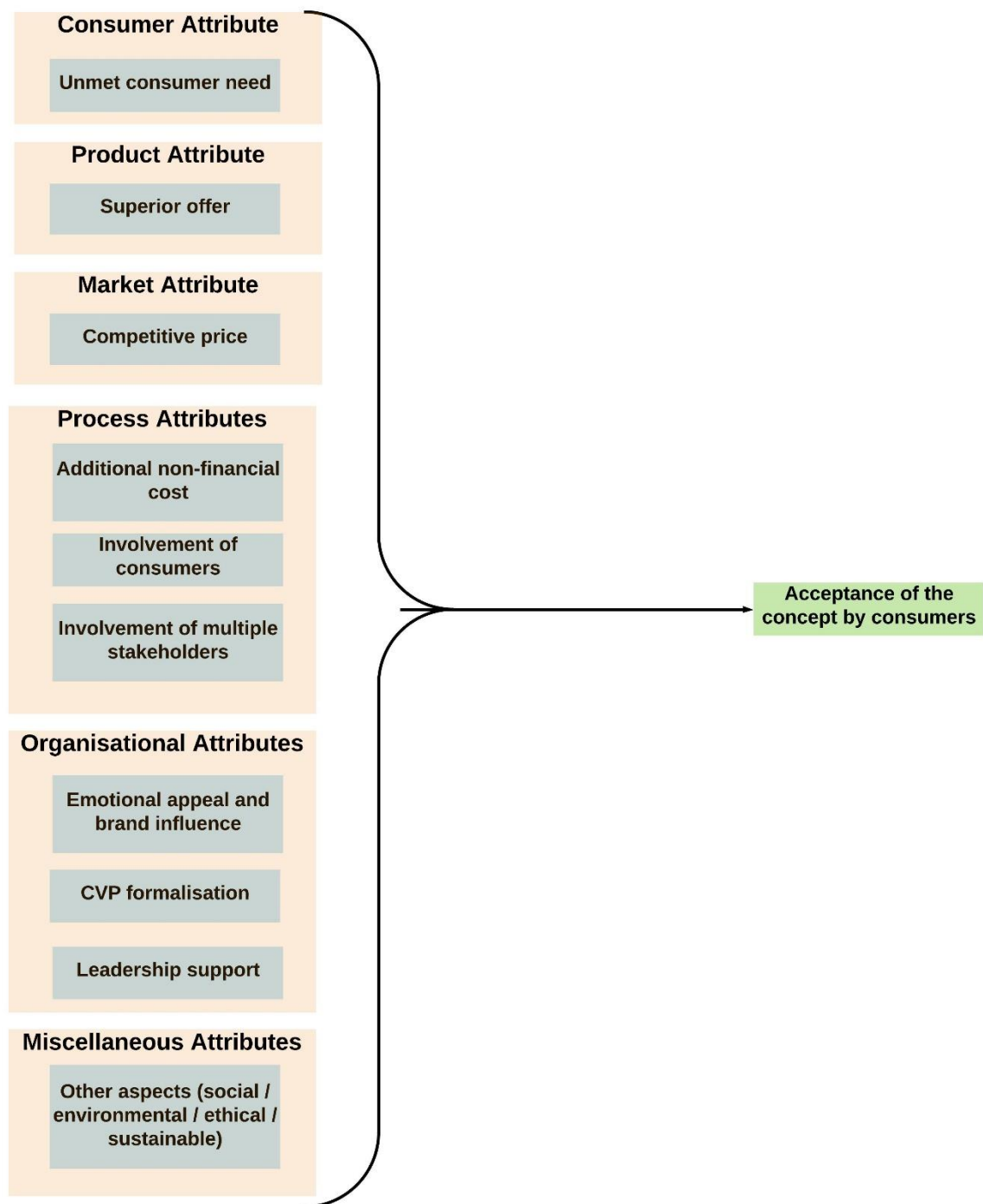


Figure 8: Conceptual model

3.6 Summary

This chapter broadly discusses the VPC process and concept of VP from literature. Furthermore, the attributes of VP are identified from the literature. All individual attributes are discussed thoroughly and elaborately. Then, the identified attributes are linked to the acceptance of the concept by consumers. This led to the formation of the initial conceptual model. Table 9 summarises the key points of chapter 3.

Stages of VPC process	- Inspiration: Identification of a problem or opportunity - Ideation: Idea generation and idea evaluation - Implementation: Concept generation and concept evaluation
Attributes of VP	- unmet consumer need - superior offer - competitive price - additional non-financial costs - involvement of consumers - involvement of stakeholders - emotional appeal and brand influence - VP formalisation - leadership support - Other aspects (social / environmental / ethical / sustainable)

Table 9: Summary of chapter 3

Chapter 4: Desk research at Philips

4.1 Introduction of Philips

Royal Philips is chosen to study and analyse the value proposition creation process. The objective is to identify real-life cases of Philips from which the relationship among attributes of value proposition and acceptance of the concept by consumers can be studied. As mentioned in chapter 2, the reason behind selecting Philips are as follows:

- Philips is one of the most innovative companies in the Netherlands. It has a history of more than 100 years of innovation. It has established well-structured VPC process throughout these years of experience. This will help to understand the key attributes of VP through the case study.
- Philips follows steps of FFEI involving inspiration, ideation, and implementation. This will help to understand the attributes of VP which play a significant role at each stage of the VPC process.
- As a large multi-national organisation Philips has a well-structured documentation process. It has designed specific tools and processes which helps VPC process. So, these tools and process can be studied to define the key attributes of VP and concept.
- Philips has a diverse portfolio of products. They frequently innovate and upgrade to stay competitive in the market. This will help to choose cases based on the scope of innovation (disrupt and incremental).

Philips as an organisation

Philips is one of the most innovative Dutch organisations with a 125+ year history of innovation. It aims to serve people by providing meaningful innovation. Turning ideas into meaningful, reliable and cost-efficient innovation is the core value of Philips. Philips brings all essential expertise, experience, best practices, methodologies, tools required to bring ideas into the market. Furthermore, Philips focuses on continuous learning throughout the innovation process which goes through several iterations. Hence, it succeeded to build robust best practices to guide the innovation funnel (“Philips Innovation Services,” 2019). Besides, value proposition creation is a key innovation and marketing strategy which is widely followed in different categories and segments of Philips (Corporate slide, 2018).

Area of focus

Philips focuses on health care and consumer electronics segment. Health care segment focuses on B2B market and consumer electronics segment (also known as Personal Health) focuses on B2C market. However, the VPC process is centralised. So, the VPC process and tools are common for both segments. This means the conceptual model which will be prepared from literature review and desk research at Philips will be applicable to Philips overall. However, the cases are selected from Philips Personal Health (PH) category. The reason behind selecting cases from PH category as follows:

- PH category consists diverse product portfolio from Health & Wellness, Domestic Appliances, Personal Health, Sleep & Respiratory (Philips, 2017). So, the VPC processes followed for different product innovation can be studied. This increases the validity of the research.

- The product innovation timeline for consumer-centric products is shorter compared to health care products as a higher timeline for consumer-centric products brings the threat of being obsolete or outperformed by competitors (Corporate slide, 2018). The thesis aims to study all phases of FFEI of ongoing projects i.e. inspiration, ideation, and implementation. Moreover, it is possible to find core team members who are involved in the project throughout the VPC process for interview. This is one of the criteria defined for respondent selection in chapter 2. Hence, PH is chosen over health care.
- PH category needs frequent innovation in products as consumer-centric market is highly volatile. This is due to frequent change in consumer, market, and product trend. Competitor positioning can also threaten the organisation (Corporate slide, 2018). This ensures that this category has cases from different scope of innovation (disrupt, incremental, and mixed type). Innovation for this thesis is considered as newness to the organisation. Projects which involves disrupt innovation are known as disrupt project. Projects which involves incremental innovation are known as renew project. Mixed type is the innovation for specific product type or category, but innovation knowledge is available for developing other products. However, in most cases, it is required to innovate features specific to product. So, it shares the characteristics of disrupt as well as incremental innovation. It is known as expand project in Philips. Furthermore, the similarity of product (consumer electronics) will help to compare attributes of VP for renew, expand, and disrupt products.
- PH involves consumers extensively to validate ideas and concepts both qualitatively and quantitatively compared to the B2B segment (Corporate slide, 2019). The objective of the research is to establish the relationship between attributes of VP and acceptance of the concept by consumers. So, this category is more suitable for studying acceptance of the concept by consumers.

Although the conceptual model applies to both B2B and B2C market, it is not validated with cases from B2B market. So, to generalise the conceptual model further validation in B2B market is required.

4.2 VPC at Philips

At Philips, the VPC process starts from VPC kick-off and ends with Value Proposition Defined (VPD) which is a hard gate to enter the development phase. The VPC process followed at Philips can be explained in the following 4 stages (Consumer testing framework, Philips, 2019).

1. Inspiration and re-sight
2. Idea exploration
3. Idea evaluation
4. Concept validation

Inspiration and re-sight

The first step of VPC process is to explore the market opportunity. This stage is known as landscape assessment. In this stage the source of business, target market, market size, market share, and price segment are identified. Then, competitors' products and alternatives are

analysed through market study, rating and reviews, social listening, and trend analysis. In addition, consumers' pain point, moments of delights, and unmet needs are identified.

Idea Exploration

In idea exploration stage different ideas are generated to fulfil consumers unmet needs with the help multi-functional teams and stakeholders. The main aim of this stage is to identify the tension and trade-offs. Furthermore, if the required ideas are built-on or fine-tuned with consumers.

Idea Evaluation

In this stage, the ideas with the highest potential are identified and prioritised for further development. First, the ideas are screened with the help of online survey or online community. Then the ideas are tested, iterated, and again tested continuously throughout its development phase.

Concept validation

Concepts are developed along with multi-functional teams, stakeholders, and consumers based on the feedback during ideation stage. Here the key concept drivers or detractors are identified. Furthermore, these concepts are validated with consumers and based on the feedback the concepts are iterated. The final concept validation is a quantitative test where the concept is checked with respect to the selected Key Performance Indicators (KPIs). If the score of the concept test (quantitative) is high, then it moves to the next stage where the concept is translated into the product.

4.3 VP at Philips

Value proposition is one of the most important process of fuzzy front-end innovation at Philips. Philips has developed several tools and processes for value creation and validation from years of innovation experience. These tools and processes will be analysed to understand the key attributes of VP in section 4.3.1 and 4.3.2.

4.3.1 Desk research at Philips

end innovation at Philips. It involves opportunity exploration, idea generation, idea prioritisation, concept generation, concept prioritisation, and concept validation. To understand this process desk research is performed at Philips. The main focus is given to understand value proposition creation tools and processes, validation tools and processes (idea and concept), and VPC online tool. VPC process of on-going cases are also analyzed to understand the attributes of VP and its relationship with acceptance of the concept. Table 10 discusses the sources of data used to find attributes as mentioned in section 4.3.2

Key tools and process	Source
For value creation (VP)	1. VPC training kit 2. VPC handbook 3. VPC Online tool 4. VPC Pathway 5. Corporate slides 6. Discussion with experts
For validation	1. Consumer testing framework 2. Consultation with external agency which conduct online and offline tests for Philips 3. Discussion with experts 4. Corporate slides
For concept test	1. Analysis of concept tests for different projects 2. Corporate slides 3. Concept test guidelines from different agencies 4. Consultation with external agency which conduct concept test for Philips 5. Discussion with experts

Table 10: Sources of tools and processes at Philips

4.3.2 Tools and processes

At Philips, there are several offline tools, processes, and online tools available to create a value proposition. These propositions are discussed and validated along with stakeholders and consumers through online and offline platforms. All value-creating and validations tools are discussed in Table 11. All the attributes listed in this table are the outcome of these value-creating and validation processes. The description of these value-creating tools and processes are mentioned in Appendix 8. Similarly, Appendix 9 contains the description of all validation tools and processes.

Sl No.	Attributes	VP tools & processes	Concept validation tools and processes
1.	Unmet consumer needs	- Define source of business - Define target group - Source experience flow - Tension workshop - Usage mapping - CDJ (Consumer Decision Journey) mapping - Co-creation workshop (Consumer research)	- Digital experiments - Concept labs - Concept test
2 & 3.	Superior offer & Competitive price (attributes 2 & 3 are combined as the value creation and validation tools are same)	- Identify alternatives - Ideal proposition model session - Ideation session - Envisioned experience flow - Market analysis - Bench marking - Ratings and reviews - Search / social listening - Trend analysis - Ideation session (Market research)	
4.	Additional non-financial costs	- Throughout consumer and market research	
5.	Involvement of consumers	- Source experience flow - Envisioned experience flow - Usage mapping - CDJ (Consumer Decision Journey) mapping - Co-creation workshop	
6.	Involvement of stakeholders	- Ideation sessions - Tension and insight identification	
7.	Emotional appeal and brand influence	- Claim storm workshop - Ideation session	
8.	VP formalisation	- Throughout the value proposition creation process	
9.	Leadership support	- Throughout the value proposition creation process; especially during the	- Throughout the validation process; especially during the

		decision-making stages such as VPC kick-off and VPD	decision-making stages such as VPD (Concept test)
10.	Other aspects (social / environmental / ethical / sustainable)	- Ideation session	- Digital experiments - Concept labs - Concept test

Table 11: VP tools and processes

In above-mentioned Table 11, the online tool for VP is not included. The online tool is mandatory for all projects to create value proposition whereas the tools mentioned in Table 4 can be customised based on the project requirements. The online tool focuses on three major aspects: consumer relevance, superior offer, and business viability. Consumer relevance focuses on designing and producing the products or services which is relevant to the target consumers. The superior offer makes a new product distinctive compared to existing products and alternatives. Business viability indicates the size of the opportunity, company's competency and alignment of the vision with the new opportunity, fulfilment of commercial key performance indicators (KPIs), alternate business opportunities, main risks and assumptions to make the business viable, profitable, and sustainable (VPC introduction, Philips, 2018).

4.4 VP pathways at Philips

At Philips, VP pathway is defined based on the scope of the project. Scope of the project is defined based on the newness of the product for the company. Hence, projects are categorised as Renew, Expand, and Disrupt. The objective of VP is to enhance the superiority of existing proposition or to create a fully new proposition within an existing product range or category depending on the project type. Renew project focuses on maximizing superiority of existing propositions through minor adaptations e.g. mid-life updates or solving issues for specific markets. It has very low innovation scope. The goal of renew project is to generate a proposition which is very close to the existing proposition. Expand project aims to offer new superiority (new benefit, new core feature) from a defined starting point. It has medium innovation scope such as leverage existing propositions, offers, technologies or platforms within the Philips network. Disrupt project focuses on solving trade-offs e.g. cost vs. superior offers or problems that are not completely solved yet. It aims to build new or transform existing categories. Disrupt project has wide innovation scope which gives freedom and opportunity to seek out new and potentially complex solutions (VPC introduction, Philips, 2018).

4.5 Acceptance of the concept by consumers

At Philips, several concepts are developed from the selected ideas. These concepts are verified with consumers through different qualitative tests through online and offline platform. The final test is the quantitative test known as concept test. Concept test provides the opportunity to get first-hand data from target consumers to understand the chance of success of the positioning in the target markets. It gives insights on which concepts have higher chances to succeed and resonate the best with consumers. Furthermore, based on these data the

performance, features, and price point of concepts can be optimised (Consumer testing framework, Philips, 2019).

Figure 9 shows the concept test score indicator and acceptability criteria measured based on selected KPIs. If the concept test score is from 0 to 67, then the product comes under caution category. It means the product has little chance to win if it is launched as it is. If the concept test score is within 67 to 133, it comes under mid performer. It means the product may have a high potential idea which further needs to be explored. If the concept test score is within 133 to 200, it comes under the mass potential category. It suggests that the product comes under top performer category and it has a high chance to succeed in the market (VPC introduction, External agency, 2018).

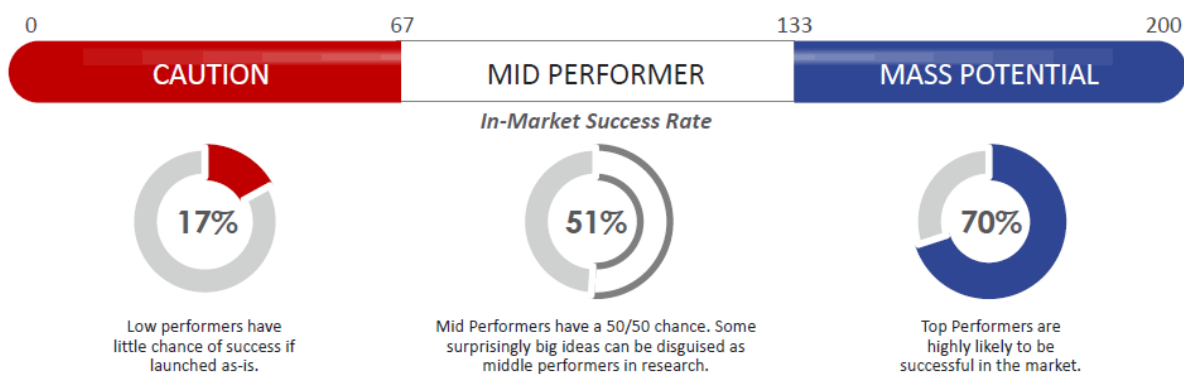


Figure 9: Concept test score indicator

Source: Corporate slide, External agency, 2018

Concept test score is a strong predictive measure of market potential. Concept test score is measured with respect to below mentioned KPIs at Philips as defined by the external agency.

1. Seek information
2. Purchase intent
3. Liking
4. Uniqueness
5. Believability
6. Need fulfilment
7. Price value

4.6 Comparing attributes of VP from literature and Philips

In this section the attributes identified in literature is compared with the identified attributes from Philips data base as shown in Table 12.

Sl No.	Attributes from literature	Attributes from Philips
1.	Unmet need, specific Consumer need	Need / desire of consumers
2.	Competitive price, perceived cost	Cost, price, competitive price, offer price, nominal cost
3.	Superior offer compared to competitors and alternative, perceived benefit	Benefits, Superior offers, Value to consumer, Superior value, Value package
4.	Co-creation, two-way reciprocal nature of the VP, involvement of consumer	Involvement of consumers, co-creation, virtual community, target consumers
5.	Involvement of multi-functional team	Involvement of cross-functional team, multi-functional teams, Involvement of experts, champions, and external agencies
6.	Additional non-financial costs: time, risk, search, psychic, and effort	Time, risk, uncertainties
7.	Emotional appeal and brand influence	Brand influence, Customer loyalty, customer relationship management
8.	VP practices	Best practices, VP tools and process
9.	Leadership support	Higher management support
10.	Other aspects (social, environmental, ethical, and sustainable)	Ethical values, privacy, sustainability

Table 12: Comparison of attributes of VP (Literature vs. Philips)

All the attributes found in Philips database are already there in the list of attributes of VP identified from the literature. There is no new addition to the list of attributes of VP. However, there are some changes in the application of few attributes at Philips. For example, Involvement of stakeholders means involvement of multi-functional team at Philips. This is due to the limited involvement of external members in the ideation process. Similarly, VP formalisation mostly deals with best practices, tools, and processes at Philips. Influence of organisation structure was not studied due to the uniformity of structure across Philips. However, these changes are not significant. So, the conceptual model for validation during the expert interview is kept same as the initial model designed from literature review.

4.7 Summary

This chapter starts with describing selection criteria for the identified organisation for research. Then the VPC process followed at Philips is described. This helps to identify the common ground between Philips and literature. Then the key attributes identified in the literature are compared with finding from Philips database. This led to the formation of the initial conceptual model for the interviews. Table 13 summarises the key highlights of Chapter 4.

Key sources of attributes of VP at Philips	- Value proposition creation tools and processes - Validation tools and processes - VPC online tool
Conceptual model	- Conceptual model remains same as mentioned in section 3.5 after completing desk research at Philips - Few changes are observed in application at Philips. Involvement of stakeholders means involvement of multi-functional team at Philips. This is due to the limited involvement of external members in the ideation process. Similarly, VP formalisation mostly deals with best practices, tools, and processes at Philips. Influence of organisation structure was not studied due to the uniformity of structure across Philips.
KPIs to determine concept test score	- Seek information - Purchase intent - Liking - Uniqueness - Believability - Need fulfilment - Price value

Table 13: Summary of Chapter 4

Chapter 5: Case study and analysis

This section discusses the results of the interview of all 9 cases. It only focuses on the findings of the interview. In this section, the findings are not compared with literature as Chapter 6 is dedicated to comparing findings with the previously established theoretical model from the literature.

5.1 Case description

As mentioned in chapter 4 different cases are selected from Personal Health division of Philips. Initially, it was planned to consider only Home care category, however, Personal care, Coffee, Garment care, and Mother & child care were included for research due to lack of cases which followed both VPC process and concept test. Current VPC process is newly established in Philips for the last 2 years. Hence, there are not enough cases which meet both the conditions. Below are the only cases which satisfy above-mentioned criteria in their respective categories. Table 14 describes the characteristics of all cases.

Sl. No.	Philips category	No. of Interviews	VPC Pathway	Concept Test Result
Case 1	Home care	2	Renew	High
Case 2	Personal care	2	Renew	High
Case 3	Personal care	2	Renew	High
Case 4	Home care	2	Expand	High
Case 5	Coffee	2	Expand	High
Case 6	Garment care	2	Expand	High
Case 7	Garment care	2	Expand	High
Case 8	Garment care	2	Disrupt	High
Case 9	Mother & childcare	2	Disrupt	High

Table 14: Characteristics of cases

Similarly, Table 15 shows the interviewees details. Codes are used to represent interviewees. For example, C1R1 represents respondent 1 for case 1. C is the short-form for the case and R is the short-form for respondent.

Case number	Respondent number	Code	Expertise
Case 1	Respondent 1	C1R1	Product manager
	Respondent 2	C1R2	Product Research Center (Consumer research)
Case 2	Respondent 1	C2R1	Product manager
	Respondent 2	C2R2	Product Research Center (Consumer research)
Case 3	Respondent 1	C3R1	Product manager
	Respondent 2	C3R2	Innovation & Development
Case 4	Respondent 1	C4R1	Product manager
	Respondent 2	C4R2	Innovation & Development
Case 5	Respondent 1	C5R1	Product manager
	Respondent 2	C5R2	Market intelligence
Case 6	Respondent 1	C6R1	Product manager
	Respondent 2	C6R2	Market intelligence
Case 7	Respondent 1	C7R1	Product manager
	Respondent 2	C7R2	Market intelligence
Case 8	Respondent 1	C8R1	Product manager
	Respondent 2	C8R2	Market intelligence
Case 9	Respondent 1	C9R1	Product manager
	Respondent 2	C9R2	Product Research Center (Consumer research)

Table 15: Interviewees detail & interviewee codes

Case 1: Home care category

Case 1 represents a home care device. The VPC pathway followed for this case is renew as it is inspired by the existing proposition and uses the insights gained from it. Hence, it calls for incremental change. As mentioned before, the concept test is the quantitative test which checks the market potential of the product. The concept test score of case 1 is high. This concept test score is taken from the trial done by Philips for this case with the help of external agency. Hence, it has mass potential (Philips corporate slides, 2019).

Concept tests are measured with potential consumers by the external agency hired by Philips to reduce the effort and bias in the concept selection process. It generally verified with 200 to

1000 consumers depending on case requirements. Respective concept test scores are considered for all cases in this thesis. These tests are quantitative. Hence, these tests are reliable.

Case 2: Personal care category

Case 2 represents the personal care device. This is a renew project as it is trying to provide additions to the existing features. Hence, this project is going through incremental changes. It was clear from the concept test that the product has mass potential as it has high score (Philips corporate slides, 2019).

Case 3: Personal care category

Case 3 represents a personal care device. This product has a high concept test score. So, it has a mass potential considering the business perspective of the concept which is defined based on the concept score. Case 3 is a renew project (Philips corporate slides, 2019).

Case 4: Home care category

Case 4 is an expand project for a home care device. This project is an expand project as it provides additional benefits by using the insights from the previously launched devices. The concept test score of the project is high. Hence, it has mass potential (Philips corporate slides, 2019).

Case 5: Coffee category

Case 5 represents a coffee machine. It got a high concept test score and has mass potential. This project is an expand project as it provides some additional benefit compared to the currently available offers of Philips in coffee machines (Philips corporate slides, 2019).

Case 6: Garment care category

It represents an expand project for the garment care device. This product provides a better result and ease of use. This is an expand project with high concept test score (Philips corporate slides, 2019).

Case 7: Garment care device

Case 7 represents a garment care device. This is an expand project with high concept test score (Philips corporate slides, 2019).

Case 8: Garment care category

Case 8 represents the garment care device. It gained high market acceptance. This project comes under the disrupt project. It got a high concept test score and has mass potential (Philips corporate slides, 2019).

Case 9: Mother & child care category

Case 9 is a mother and child care solution. It has a high concept test score and has mass potential. This is a disrupt project (Philips corporate slides, 2019).

5.2 Case analysis

5.2.1 Findings common to all types of cases

This section analyses the interview results of all 9 cases. It aims to describe the findings on all identified attributes irrespective of their innovation category e.g. renew, expand, or disrupt. So, this section analyses the interview results which are applicable for all types of cases. This is helpful to identify key attributes along with ranking chart. The unique characteristics of cases to each innovation categories will be discussed in section 5.2.2, 5.2.3, and 5.2.4.

Criteria to define project category

Renew and expand project uses the existing value proposition. However, new value proposition is created in disrupt project. Renew project mainly focuses on gap analysis from the existing market, consumer, and product insights. VP is optimized based on these data. Expand project focuses on providing superior benefits whereas disrupt project aims to develop a new product in Philips. The main reasons to develop disrupt product can be due to market development, competitor development, or company strategy. The scope of VPC and newness of innovation is highest for the disrupt project and lowest for the renew project (C9R1).

C8R2 stated that “renew project mostly focuses on mid-life update which is incremental change on existing proposition based on the reviews of consumer and market. It mainly aims to increase profitability by offering marginal superiority and upgrades e.g. by offering premium colour or accessories. Consumer experience is the same in most of the cases but project focuses on cost-reduction methods to increase profitability. No additional research is needed in renew projects. Expand project focuses to provide additional benefits or to enter to new market segments. So, it needs further consumer, market, and product research to generate successful concept. However, Philips may have partial knowledge of consumer, product, and market in some cases. Disrupt project aims to create a new value proposition in the existing category or to build a new category. Extensive consumer, market, and product research is essential for this kind of project.”

Above are the common criteria used at Philips to define the project categories. However, exceptions can exist.

Consumers unmet needs

Consumer needs are identified during inspiration and re-sight phase (exploratory study). In this stage, insights on consumers' pain point, moments of delight, and unmet needs are identified. This stage of data collection is qualitative, and it is performed by Philips or external agencies (C5R1). The main aim of this type of research is to understand consumers' life situation concerning the area of focus. It means what consumers do, think, and feel about the currently available solutions. Furthermore, competitor analysis (especially review of consumers on the current product) and trend analysis provides details on unmet consumer needs (C4R2).

C1R1 mentioned that *“exploratory study with consumer helps to understand the key drivers of the products. Although the consumer unmet need is identified during the initial stage of the project, it is validated throughout the VPC process to ensure alignment of the idea and concept with the actual consumer need. The concepts are shown to consumers and checked if it resonates with consumers or not during a concept lab. Concepts are changed on the spot based on their feedback and ideas or concepts are assessed further. So, unmet consumer need is a crucial aspect of VPC. Concept lab is the qualitative study and it can be called a focus group. The last stage is the quantitative stage which is known as the concept test. In this stage also unmet consumer needs are verified.”*

Additionally, each category has consumer and current trend database which gets updated on a regular basis by marketeers and external partners. Insights gained from previous projects also help significantly to define the right unmet consumer need.

The key tools and processes to identify the unmet consumer need are usage mapping, CDJ (consumer decision journey) mapping, experience flow map, tension plot, and ideation. *“Usage mapping, CDJ mapping, and experience flow map focus on the key need of the target group. It helps to understand the delighters, differentiators, and detractors. Delighters are the add-ons over consumer basic expectation from the product. Differentiators are the uniqueness of the product which no other competitors are providing. Detractors are the area which consumers dislike. Philips aims to focus on key differentiator. Tension plot is one of the most useful tools to identify the most important need of the consumers as it helps to compare the consumer insights with competitors and alternatives. It helps to identify the superior unmet need from multiple identified needs during the re-sight stage e.g. trade-off between quick result vs. superior quality as stated by C1R2.”*

Superior offer

Superior offer defines the uniqueness of the product. The key differentiators are the superior offers of the product. This superiority can be due to technology, quality, communication, or service. As per C1R1, *“competitor benchmarking and trend analysis play a significant role in defining superior value and competitive price. Rating and review analysis of key competitors during re-sight phase can help to define superior value package.”* Besides these tools Ideal Proposition Model (IPM), envisioned experience flow, claim storm workshop, and ideation are the main tools and processes used to define superior value. C3R2 mentioned that IPM is one of the most useful tools to define superior opportunity as it translates consumer needs into product attributes. It further helps to identify boundaries and to gather inspiration. Disrupt and expand projects mainly focuses on superior offer.

Competitive price

Competitive price is a governing parameter for renew project. However, it plays a significant role with superior value and brand reputation. C7R1 stated that in China foreign brands can be considered as high-quality brands. This provides Philips an opportunity to potentially play in the premium price range. C4R2 mentioned that the position of Philips also depends on competitor position in that specific market. If the competitor has a better reputation and known

for high-quality product, it becomes difficult for Philips to set a higher price in that market. It also becomes challenging to get key retailers. However, if the product has the superior benefit (uniqueness and differentiators) and it fulfils the unmet consumer needs which no other competitors and alternatives can fulfil, it could ask premium price without any effect on market share as per C9R2. The tools and processes used to define superior value are same as to define the competitive price.

Involvement of consumers

Involvement of consumer plays a significant role throughout the VPC process.

C2R2 mentioned that “involvement of consumer has high importance during the exploratory stage of the project. The success of the product depends on identifying the most valuable unmet need of the consumers and incorporating it in the product effectively. So, consumers are involved during usage mapping and CDJ mapping. Initial concepts are checked with consumers through a focus group. Several co-creation session and digital experiments are conducted to generate and validate the ideas and concepts. Philips also has virtual communities where ideas and concepts are validated based on the requirement. Concept test is the final step where the concepts are validated with consumer quantitatively.”

However, involvement of consumers is limited in finding unmet consumer need and validation of it at Philips. Most of the category don't prefer to involve consumers in solution generation and prioritisation phase. According to C3R2 experts at Philips work every day on the current problem. So, there is a high chance that experts will come up with a better solution compared to consumers if they put themselves in consumer's shoes. Involvement of multi-functional team during the ideation phase is very crucial compared to involvement of consumer for idea generation and prioritisation. C4R1 mentioned that specific consumers who are very creative can be helpful to generate ideas. Philips generally hire an external agency to select and recruit creative consumers who can help to generate great ideas.

Involvement of multiple stakeholders

Involvement of multi-functional team is a pivotal element of the VPC process. C9R1 stated that involvement of experts from Innovation & Development, consumer marketing, product research centre (consumer research), marketing intelligence, and communication brings different domain knowledge about the product to the table. This helps to assess consumer appeal, technical feasibility, market trends of the product. Additionally, Philips as an organisation is very diverse, multi-national, and multi-cultural which brings different perspective to the same challenges. Hence, the ideation process becomes interesting and fruitful. Moreover, it helps in alignment among different stakeholders which is helpful to carry forward the work from VPC to advance development and then to product life cycle management. However, in some cases, it becomes difficult to take decision if core team members have different opinion on the same topic. Higher management, external members, or data to support the arguments can help to overcome these situations.

VPC formalisation

VPC best practices act as a guideline and very useful to refer if VPC gets stuck during value proposition creation phase. However, as per interviewees sometimes VPC practices slowdowns

the VPC process. Although these practices help a lot, but the core team members should have the liberty to customise the tools, activities, and processes based on the requirement of the project. VPC is a creative process. However, best practices kill the creativity of the team if it is a mandatory process. VPC coaching, training, and PH VPC expert monthly meeting helps in understanding and sharing knowledge. However, it should be taken care that the training and coaching are provided at the right time before starting the VPC process.

Leadership support

C5R2, the influence of leadership support is highly crucial from a strategic point of view. Higher management plays an important role during the handshake (the official start of the project) and for approval of business case at different stages of the project. The management team has a significant role in defining the scope of the project, budget, and timeline. Management team helps to provide the business perspective and in setting up a multi-functional core team. Besides, management encourages VPC members to extend their creativity limits by challenging them. VPC core team can come up with the new application, innovative technology, and creative solution but if budget and time required to fully develop such project are not enough, it can't be approached further. Hence, it is very essential to decide the scope, budget, and timeline from start to keep the core team motivated and focused. The momentum and rhythm should not be discontinued too many times by changing decisions. Furthermore, management should not interfere too much in the regular decision-making process or to influence the direction of VPC process.

Emotional and symbolic association with brand and product

Emotional appeal and symbolic association with brand and product depend on contextual parameters such as category type, competitor position, and target market. Personal care and mother & child care have a more natural and explicit connection to emotional benefits and therefore can more easily appeal to emotion with consumers. Interviewee of case 2, case 3, and case 9 from personal care and mother & child care acknowledged the importance of emotional appeal in defining product and brand. Influence of the brand highly depends on the target market. Interviewees of case 5, 6, and 7 stated that foreign brands are considered as high-quality brands in China. Furthermore, the reputation of Philips varies in different categories. So, brand reputation highly depends on contextual parameters.

Additional non-financial cost (Time / search / risk / psychic / effort)

As per C8R2, “time, search, and effort required to develop disrupt project is very high. It needs extensive consumer, market, and product research. Furthermore, the technical and commercial feasibility study of the concept is also crucial for the success of the project..”

Value proposition creation can be more effective if external members from the different category can be involved during the ideation sessions. This will help to share knowledge and to give to gain a bias-free view. Besides, other stakeholders such as commercial team and Philips shoppers should be involved in VPC as they have updated market knowledge about technology trend, brand trend, and consumers preference. It is observed that when VPC is performed in external locations, it makes team members more creative and open to new ideas. This is because they are not in their habitual places and doing their regular work. However, these processes need additional time and cost. Management should have an additional budget to accommodate these facilities to have effective VPC as stated by C1R1.

Incorporation of social / environmental / ethical / sustainable aspects

Philips mostly focuses on functional and sustainable aspects of the concept development. However, social, ethical, and environmental aspects are very broad and generic terms. So, it is difficult to provide to the point answer. However, while creating value proposition privacy and sustainability aspects of the product are also taken care of. Similarly, if new regulation can impact the product, it should be considered while defining VP. However, the first criteria of Philips during VPC is to check the functional and emotional aspects depending on the type of category. Social, environmental, and ethical attributes can be the hygiene attributes which is nice to have but it will not help to get a better proposition as mentioned by C1R2.

Ideas and concepts generation, evaluation, and prioritisation

Ideas and concepts are generated from analysing the qualitative consumer research, market research, product research and brainstorming further with the multi-functional team. As per the C8R2, *“Ideas are filtered based on its consumer appeal, technical feasibility, commercial feasibility, ability to fulfil consumer needs, and uniqueness of the proposition. In most cases, ideas are selected based on the trade-off between the potential of the idea and technical feasibility. Voting among core team member is preferred in case of difficulty to choose ideas. Small digital tests can be performed to check insight, benefit, claims, and RTBs (Reason to believe). Then concepts are developed from these ideas with the help of multi-functional teams during an ideation session. These ideas are validated with consumers qualitatively. Insights, benefits, and RTBs are checked with consumers and changed based on their feedback. Concept labs and ideation sessions are most helpful to generate, prioritise, and evaluate ideas. In some cases, the price point is fixed, and ideas are strategically chosen based on their commercial feasibility.”*

Concept test

Concepts show the sketch of the product with insights, benefit, and reason to believe (RTBs). Insights are the consumers' wishes or identified unmet needs. Benefits show the advantage concept is going to provide. RTBs shows technical, quality, or service superiority. This is a qualitative test. It is performed by external agencies. Based on the defined KPIs such as need fulfilment, price-value, purchase intent etc. concepts are scored. Concept test score defines further action i.e. whether to rework the VPC or to go to the development phase or to kill the project.

Tools and processes

Competitor benchmarking, ideation, experience flow map, tension plot, and ideal proposition model are essential tools and processes to identify attributes of VP. Similarly, digital experiment, concept lab, and concept test are the key tools for concept validations. This is analysed from interviews and from the desk research performed on individual cases. Interviewees are asked to link the tools and processes to key attributes. Interviewees are also asked to identify all tools and processes used to create value proposition for respective cases. Based on the interview result and desk research Table 16 is created which indicates the key attributes that can be derived from these tools and processes. These tools and processes can contribute to more than one attributes. However, only the most important attribute is identified in this table for simplicity purpose.

However, in renew and expand projects tools and processes of the previous project can be used to build up the proposition. However, disrupt project need extensive work to build the proposition using these tools and processes from scratch. These tools and processes help to understand the attributes essential for VPC.

Tools and processes to identify attributes of VP	Influence on key attributes	Sources
Competitor benchmarking	Superior offer, competitive price	All cases (C1,2, ...,9)
Ideation	Superior offer, involvement of multi-functional team	All cases (C1,2, ...,9)
Experience flow map	Unmet consumer need, involvement of consumers	Taken from previous propositions (C1,2, ...7) Built from scratch (C8 and C9)
Tension plot	Unmet consumer need, involvement of consumers, and involvement of multi-functional team	
Ideal proposition model	Superior offer, involvement of multi-functional team	

Table 16: Analysis of tools & corresponding attributes

5.2.2 Renew project

Value proposition already exists in the market for renew projects. However, from the market analysis it is found that the proposition is not perceived as superior as it was expected to be. So, the renew project focuses on maximizing superiority of the existing proposition. In this section all three renew cases (Case 1, 2, 3) are analysed.

Following methods are adopted to find out the key attributes for cases.

1. Interviewees are asked questions on attributes of VP and concept. This includes both open and structured questions. It helps to understand the key attributes for the project and the reasoning behind it. Appendix 2 explains the details of the research question.
2. At the end of the question and answer session, interviewees are asked to rank these attributes from 1 to 10 based on its influence on the acceptance of the concept. The attributes which have high importance is ranked 1 and rest are ranked based on priority. Then the ranking of each attributes compared for all respondents. For each attributes the ranking which has the highest frequency of occurrence from voting of all respondents is taken as the final rank of the attribute for that innovation category. Table 17 shows the rank given to each attribute of VP.
3. Interviewees are also asked to identify the key tools and processes used for these cases. So, from these tools and processes the resulting key attributes can be traced back as shown in Table 16. Table 18 shows the key attributes, key VP process and concept validation tools and processes. During interview, VPC experts selected the tools and processes used for the project. Table 18 is formed based on the interview result. This is also supported by desk research as shown in section 4.3.2. It shows the key attributes which can be derived from tools and processes.

So, interview result, desk research, tools and processes are analysed to find out the key attribute.

Factors of CVP	Renew						Frequency	Rank
	C1R1	C1R2	C2R1	C2R2	C3R1	C3R2		
Unmet consumer need	1	1	1	1	1	1	1 (6 votes)	1
Superior offer	2	2	2	3	3	3	2 (3 votes) 3 (3 votes)	3
Competitive price	6	6	3	2	2	2	2 (3 votes)	2
Additional non-financial cost	5	5	9	8	9	7	5 (2 votes) 9 (2 votes)	9
Involvement of consumers	3	4	5	5	4	5	5 (3 votes)	5
Involvement of multi-functional team	4	3	4	4	5	4	4 (4 votes)	4
Emotional appeal & brand influence	10	8	6	6	6	6	6 (4 votes)	6
CVP formalisation	8	9	7	7	8	8	8 (3 votes)	8
Leadership support	7	7	8	9	7	9	7 (3 votes)	7
Other aspects (Social / Environmental / Ethical / Sustainable)	9	10	10	10	10	10	10 (5 votes)	10

Table 17: Key attributes of renew project

Tools & processes	Key attributes	Renew		
		Case 1	Case 2	Case 3
Source of business map	Unmet consumer need	X	X	X
Size of opportunity template	Unmet consumer need	X	X	X
Tension plot & workshop guide	Unmet consumer need	X	X	X
Ideal proposition model	Superior offer	X	X	X
Experience flow map	Unmet consumer need	X	X	X
Competitor benchmarking	Competitive price	X	X	X
Ideation workshop	Superior offer	X	X	X
Concept test	Concept	X	X	X
X indicates	tools and processes not used			
X indicates	tools and processes built from previous proposition			
X indicates	tools and processes used			

Table 18: Key attributes from analysis of tools for renew proje6c5t

From Table 17, it is clear that the key attributes for renew project are unmet consumer need, competitive price, superior offer, involvement of consumer, involvement of multifunctional team, emotional and symbolic association with brand and product arranged based on their ranking. However, desk research, tools and processes identified during interview show that superior offer and competitive price are most important for renew project as shown in Table 18. As per this result, influence of unmet consumer need on concept is insignificant for renew project.

To further understand this, interviews transcripts are referred. The key statements are as follows:

In renew project, unmet consumer needs are already known from the previous proposition. The previous proposition is built on this identified need. However, the existing product is not performing well in the market due to quality complaint or communication is not enough to differentiate the product from competitors. This type of project does not explore any new need of consumer rather it builds on other aspects such as price and communication (C3R1). As per C2R2 renew project mostly focuses on minor upgrade such as launching new colour. So, this is not an unmet need as these colours are already available in Philips portfolio or with competitor products. However, if it is available at a lower price or it is combined with additional accessories, it has a higher chance of acceptance by consumers. Similarly, C3R2 stated that for renew project, competitive price is the key. In addition, in renew project, there is no additional work needed to explore the unmet consumer needs unlike expand and disrupt projects (C3R1). So, *competitive price and superior offer are considered as the key attribute for renew project after considering desk research, interview discussion, and ranking of attributes.*

In addition, exploratory consumer research is limited in renew type VPC project. So, involvement of consumer is less in renew project compared to expand and disrupt projects. However, ideas and concepts are validated with consumers to ensure relevance of the consumer data taken in previous project. Source of business map, tension plot, experience flow map, business model, and business canvas in most cases are also taken from previous proposition. However, if it is required tools and processes further updated along with multi-functional teams during ideation session. Concept lab and concept test are most common concept validation methods. Emotional appeal and brand influence play a significant role in setting competitive price for renew project. However, it depends on several contextual parameters such as type of market, key competitor's position, and Philips reputation in that specific category.

5.2.3 Expand project

Expand projects also builds on the existing proposition like renew project. However, it aims to explore new opportunities in terms of additional benefits or reaching to new target group. In this section all four expand cases (Case 4, 5, 6, and 7) are analysed.

Following methods are adopted to find out the key attributes for cases.

1. Interviewees are asked questions on attributes of VP and concept. This includes both open and structured questions. It helps to understand the key attributes of the project and the reasoning behind it. Appendix 2 explains the details of the research question.
2. At the end of the question and answer session, interviewees are asked to rank these attributes from 1 to 10 based on its influence on the acceptance of the concept. The attributes which have high importance is ranked 1 and rest are ranked based on priority. Then the ranking of each attributes compared for all respondents. For each attributes the ranking which has the highest frequency of occurrence from voting of all respondents is taken as the final rank of the attribute for that innovation category. Table 19 shows the rank given to each attribute of VP. For example, 7 respondents ranked superior offer as 2 whereas 1 respondent ranked it as 3. So, superior offer is ranked as 2.

3. Interviewees are also asked to identify the key tools and processes used for these cases. So, from these tools and processes the resulting key attributes can be traced back as shown in Table 16. Table 20 shows the key attributes, key VP process and concept validation tools and processes. During interview, VPC experts selected the tools and processes used for the project. Table 20 is formed based on the interview result. This is also supported by desk research as shown in section 4.3.2. It shows the key attributes which can be derived from tools and processes.

The key attributes are identified based on the result of desk research, interview discussion, ranking of attributes, tools and processes.

Factors of CVP	Expand								Frequency	Rank
	C4R1	C4R2	C5R1	C5R2	C6R1	C6R2	C7R1	C7R2		
Unmet consumer need	1	1	1	1	1	1	1	1	1 (8 votes)	1
Superior offer	3	2	2	2	2	2	2	2	2 (7 votes)	2
Competitive price	4	5	5	6	5	5	3	8	5 (4 votes)	5
Additional non-financial cost	9	7	7	7	7	7	7	5	7 (6 votes)	7
Involvement of consumers	5	4	4	4	4	3	5	3	4 (4 votes)	4
Involvement of multi-functional team	2	3	3	3	3	4	6	4	3 (4 votes)	3
Emotional appeal & brand influence	6	6	6	5	6	6	4	9	6 (5 votes)	6
CVP formalisation	7	8	8	8	8	8	8	6	8 (6 votes)	8
Leadership support	8	9	9	9	9	9	9	7	9 (6 votes)	9
Other aspects (Social / Environmental / Ethical / Sustainable)	10	10	10	10	10	10	10	10	10 (8 votes)	10

Table 19: Key attributes of expand project

Tools & processes	Key attributes	Expand			
		Case 4	Case 5	Case 6	Case 7
Source of business map	Unmet consumer need	X	X	X	X
Size of opportunity template	Unmet consumer need	X	X	X	X
Tension plot & workshop guide	Unmet consumer need	X	X	X	X
Ideal proposition model	Superior offer	X	X	X	X
Experience flow map	Unmet consumer need	X	X	X	X
Competitor benchmarking	Competitive price	X	X	X	X
Ideation workshop	Superior offer	X	X	X	X
Digital experiments	Competitive price	X	X	X	X
Concept lab	Unmet consumer need, superior offer	X	X	X	X
Concept test	Concept test	X	X	X	X
X indicates	tools and processes not used				
X indicates	tools and processes built from previous proposition				
X indicates	tools and processes used				

Table 20: Key attributes from analysis of tools for expand project

From Table 19, it is clear that the key attributes for expand project are unmet consumer need, superior offer, involvement of multifunctional team, involvement of consumer, competitive price, emotional and symbolic association with brand and product arranged based on their

ranking. Similarly, unmet consumer need and superior offer are the key attributes identified from analysis of tools and processes as shown in Table 20

Exploring unmet consumer needs is crucial to identify new superior benefits. Hence, consumers are involved in the initial exploratory study as well as in intermittent validation processes through concept lab and concept test. Involvement of multi-functional team is crucial during the ideation process. Involvement of external stakeholders such as VPC experts from different category, salesperson, and shopper also help to further understand consumer needs as they closely interact with consumers and to select unbiased ideas. Competitive price, emotional appeal and brand influence also influence consumers buying decisions. However, it was clear from interviews that consumers are willing to pay a higher price if Philips is fulfilling unmet consumer needs and offering unique value which no other competitors are offering. Hence, competitive price is not as important parameter as the unmet consumer need and superior offer. Since emotional appeal and brand influence governs the competitive price. It is also equally important as competitive price in case of expand project. Tension plot, Ideal proposition model, experience flow map, and ideation are the key tools and processes of expand project. In some projects, digital experiments are performed to check insights, benefits, reasons to believe, and claims of ideas or concepts. Besides, the concept lab and concept tests are the most widely used concept validation and processes.

5.2.4 Disrupt project

Disrupt projects focus on creating a completely new proposition within an existing category or to build a new category. So, it focuses on the product or market which no other competitors are offering. Disrupt project goes through an extensive and iterative process. In this section case 8 and 9 are analysed.

Following methods are adopted to find out the key attributes for cases.

1. Interviewees are asked questions on attributes of VP and concept. This includes both open and structured questions. It helps to understand the key attributes for the project and the reasoning behind it. Appendix 2 explains the details of the research question.
2. At the end of the question and answer session, interviewees are asked to rank these attributes from 1 to 10 based on its influence on the acceptance of the concept. The attributes which have high importance is ranked 1 and rest are ranked based on priority. Then the ranking of each attributes compared for all respondents. For each attributes the ranking which has the highest frequency of occurrence from voting of all respondents is taken as the final rank of the attribute for that innovation category. Table 21 shows the consolidated results of this ranking.
3. Interviewees are also asked to identify the key tools and processes used for these cases. So, from these tools and processes the resulting key attributes can be traced back as shown in Table 16. Table 22 shows the key attributes, key VP process and concept validation tools and processes. During interview, VPC experts selected the tools and processes used for the project. Table 22 is formed based on the interview result. This is also supported by desk research as shown in section 4.3.2. It shows the key attributes which can be derived from tools and processes.

Factors of CVP	Disrupt				Frequency	Rank
	C8R1	C8R2	C9R1	C9R2		
Unmet consumer need	1	1	1	1	1 (4 votes)	1
Superior offer	2	2	2	2	2 (4 votes)	2
Competitive price	6	6	7	6	6 (3 votes)	6
Additional non-financial cost	5	5	5	5	5 (4 votes)	5
Involvement of consumers	3	4	4	4	4 (4 votes)	4
Involvement of multi-functional team	4	3	3	3	3 (3 votes)	3
Emotional appeal & brand influence	9	9	9	7	9 (3 votes)	9
CVP formalisation	8	8	6	9	8 (2 votes)	8
Leadership support	7	7	8	8	7 (2 votes)	7
Other aspects (Social / Environmental / Ethical / Sustainable)	10	10	10	10	10 (4 votes)	10

Table 21: Key attributes of disrupt project

Tools & processes	Key attributes	Disrupt	
		Case 8	Case 9
Source of business map	Unmet consumer need	X	X
Size of opportunity template	Unmet consumer need	X	X
Tension plot & workshop guide	Unmet consumer need	X	X
Ideal proposition model	Superior offer	X	X
Experience flow map	Unmet consumer need	X	X
Competitor benchmarking	Competitive price	X	X
Ideation workshop	Superior offer	X	X
Digital experiments	Competitive price	X	X
Concept lab	Unmet consumer need, superior offer	X	X
Concept test	Concept test	X	X
X indicates	tools and processes not used		
X indicates	tools and processes built from previous proposition		
X indicates	tools and processes used		

Table 22: Key attributes from analysis of tools for disrupt project

Finding the right source of business and most important unmet consumer need is a critical parameter of this project. The key questions are as follows: what are people currently doing? What are the pain points? How does your product will help to solve the issue? Who are your partners? Moreover, it is essential to understand if the identified problem is an actual problem. So, it is equally important to see the perspective from a broader view. One of the most important tasks is to check with people who are happy with the current solution to understand if the identified problem is the actual problem. Disrupt project calls for extensive involvement of consumers in the explorative study as well as for validation of ideas and concepts. After finding the right consumer need it is essential for the company to find ideas which can translate these needs into concepts. The ideation process is an extensive process in disrupt project which

involves a large number of actors and stakeholders. In disrupt project the scope of innovation is high. So, it gives opportunities to the team to be creative and to think out of the box. Furthermore, it needs intensive consumer, market, and product research as the company is tapping into a new market venture. Also, it makes opportunities to Philips to partner with other market leaders in the target domain. This helps to share knowledge, capability, investment, and risk.

So, from the interviews, case analysis, and desk research, tools and processes - it is clear that unmet consumer need (Rank 1), superior offer (Rank 2), additional non-financial cost (Rank 5) for exploratory research, involvement of consumers (Rank 4), and involvement of multifunctional team (Rank 3) are the key attributes for the disrupt project as shown in Table 21. Analysis of tools and processes also support above statement as shown in Table 22. Consumers are willing to pay a high price if the product is solving the most essential consumer need which no other competitors can fulfil. Source of business map, competitor benchmarking, experience flow map, ideation workshops, ideal proposition model, tension plot are the most important tools for the disrupt project. All tools and processes are conducted from scratch for the disrupt project unlike renew and expand projects. Digital experiments are mostly used to validate insights, benefits, RTBs, and claims with the online community on a regular basis. Concept lab and concept test are the most commonly used concept validations. Concept lab is used in early stages (qualitative) whereas concept test (quantitative) is the final stage of concept validation.

5.3 Cross-case analysis

In this section the key attributes of renew, expand, and disrupt projects are compared thoroughly in their respective category. This will help to understand the key attributes in each innovation category. This understanding is important to define the general conceptual model in Chapter 6 and to answer the main research question which focuses to establish relationship among VP and concept test score.

Tools and processes

Most used tools and processes are the great indicators of key attributes which are identified for the respective project as shown in Table 16. Hence, the tools and processes used for each case are analysed. Table 23 provides a comparative study of the tools and processes used to define VP and concept. This table is formed based on the interviewees feedback on tools and processes used for the specific project. Beside this desk research is also performed to understand each case.

1. **X** indicates corresponding tool and process are not used in the project
2. **X** indicates corresponding tool and process are built from the previous proposition
3. **X** indicates corresponding tool and process are started from scratch for the project

Tools & processes	Key attributes	Renew			Expand				Disrupt	
		Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9
Source of business map	Unmet consumer need	X	X	X	X	X	X	X	X	X
Size of opportunity template	Unmet consumer need	X	X	X	X	X	X	X	X	X
Tension plot & workshop guide	Unmet consumer need	X	X	X	X	X	X	X	X	X
Ideal proposition model	Superior offer	X	X	X	X	X	X	X	X	X
Experience flow map	Unmet consumer need	X	X	X	X	X	X	X	X	X
Competitor benchmarking	Competitive price	X	X	X	X	X	X	X	X	X
Ideation workshop	Superior offer	X	X	X	X	X	X	X	X	X
Digital experiments	Competitive price	X	X	X	X	X	X	X	X	X
Concept lab	Unmet consumer need, superior offer	X	X	X	X	X	X	X	X	X
Concept test	Concept test	X	X	X	X	X	X	X	X	X

Table 23: Tools and processes

Following conclusion can be derived from analysis of tools and processes used for renew, expand and disrupt projects as discussed in section 5.2.2, 5.2.3, and 5.2.4.

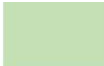
1. *Superior offer and competitive price are most crucial attribute for renew project. Unmet consumer need is insignificant for renew project.*
2. *Unmet consumer need and superior offer are most important for expand project.*
3. *All attributes play significant role in disrupt project.*

Ranking based on interview

The ranking of attributes based on the interview are analysed to find the key attribute. The weighted average score is calculated for each attribute in their respective project category. Table 24 is derived from table 17, 19, and 21. The attributes which have weighted average score from 1.0 to ≤ 4.0 is considered to have a high influence on the concept test score. The attributes which have weighted average score from > 4.0 to ≤ 7.0 is considered to have a moderate influence on concept test score and the attributes which have weighted average score from > 7.0 is considered to have low influence. The weighted average score is defined per each project category (renew, expand, or disrupt). This means the weighted average score of attributes for renew project is calculated considering the remarks of 6 respondents. Similarly, it is calculated based on the feedback of 8 respondents for expand project and 4 respondents for disrupt projects. The lower the number the higher is its priority. So, this means the attributes of VP are compared in their respective categories.

1. No.	Attributes	Weighted average score		
		Renew	Expand	Disrupt
1	Unmet consumer need	1.0	1.0	1.0
2	Superior offer	2.5	2.1	2.0
3	Competitive price	3.5	5.1	6.3
4	Additional non-financial cost	7.2	7.0	5.0
5	Involvement of consumers	4.3	4.0	3.8
6	Involvement of multi-functional team	4.0	3.5	3.3
7	Emotional appeal & brand influence	7.0	6.0	8.5
8	VP formalization	7.8	7.6	7.8
9	Leadership support	7.8	8.6	7.5
10	Other aspects (Social/ Environmental /Ethical/Sustainable)	9.8	10.0	10.0

Table 24: Weighted avg. score of each attribute

	High influence 1.0 <= Weighted avg. score <= 4.0		Moderate influence 4.0 < Weighted avg. score <= 7.0		Low influence Weighted avg. score > 7.0
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Project type	Key attributes					
Renew	Unmet consumer need	Competitive price	Superior offer	Emotional appeal and brand influence	Involvement of consumer	Involvement of multifunctional team
Expand	Unmet consumer need	Competitive price	Superior offer	Emotional appeal and brand influence	Involvement of consumer	Involvement of multi-functional team
Disrupt	Unmet consumer need	Competitive price	Superior offer	Additional cost	Involvement of consumer	Involvement of multifunctional team

Table 25: Cross-case analysis

Table 25 shows the key attributes of renew, expand, and disrupt project. It is derived from Table 24.

Unmet consumer need

As mentioned in section 5.2.2, unmet consumer need is identified to have low influence on concept test score in renew project. Renew project mainly focuses on reducing operational cost or to provide marginal benefit over existing proposition. Hence, there is no substantial work required to find the unmet need as the proposition build on already found unmet consumer need of previous proposition. It is an important attribute in expand project as it aims to offer superior benefit over the existing proposition. It is essential to explore unmet consumer need to define superior offer relevant to the consumer. It is the most critical attribute for the disrupt project.

Competitive price

A competitive price is very crucial for renew project as it aims to provide marginal change over the current proposition by reducing the operational cost of the organisation. It has a moderate influence on concept test score for the expand projects. It is ranked as low importance for the disrupt project based on the findings of interview discussions and desk research, although in the rank chart it is identified as to have a moderate influence on the concept test score. The main reason of this difference is from the interview it is clear that consumers are willing to pay a higher price if the product is providing superior benefits or fulfilling unmet consumer need which no other competitors are offering as discussed in section 5.2.1. Hence, competitive price does play a significant role in the disrupt project.

Superior offer

Superior offer is critical for renew, expand and disrupt project. However, newness and uniqueness of this offer vary according to the scope of the project. Expand and disrupt project provides an offer which existing proposition of Philips is not offering.

Emotional appeal and brand influence

Emotional appeal and brand influence have a significant role in setting up a competitive price. Although the competitive price has a high influence in renew project, but emotional appeal and brand influence are noted to have moderate influence. This is due to the dependency of it on contextual parameters e.g. type of category, product type, and market. This also has a moderate influence on expand project due to the same reason as mentioned above. However, it does not have a significant influence on the disrupt project.

Influence of consumer

Influence of consumer is significant to find unmet consumer need and also for the validation of concepts. It has a high priority for expand and disrupt projects. However, in renew project consumers are involved to validate the ideas and concept. Involvement of consumers during the initial exploratory study is minimal. Hence, it has a moderate influence on the acceptance of the concept by consumers in renew projects.

Influence of multi-functional team

Involvement of the multi-functional team is rated high in all three-type project. This is unanimously selected by interviewees as one of the key attributes of VP.

5.4 Case analysis for low concept test score

Philips has implemented new structured approach for value proposition before couple of years. Researcher of this thesis could not find any case which is from recent past or currently on-going with low concept test score. So, few old cases are selected which had low concept test score. However, there is no documentation of VPC process and concept test available for these cases. So, the result shown in Table 26 is based on the experience of respondent. So, it has low validity. There was a short discussion with the respondents for 15 to 30 minutes. Below are the main questions asked to respondent apart from the project specifics:

1. Why did the concept have low score?
2. What had been done to improve the concept test score?

The interviewee of home care device stated that the concept test score was low due to high price-value ratio. The price was high compared to the market for that product category. After getting a low score, VP was reworked. The price was reduced to market standard. Then, concept is retested, and it got a high score. So, competitive price is the key attribute to get high concept test score for this project. The interviewee of the personal care device stated that the product was not fulfilling the right consumer need. So, initial concept test failed. Then the focus was given on consumer research. After extensive research, several concepts are developed and tested with consumers. So, unmet consumer need was crucial for the stated project. Similarly, the garment care device was not offering any unique value. So, it had a low score on uniqueness. Product features are improved. After re-test, it was categorized under mass potential.

Product type	Project type	Concept Test Result	Low score on	Rework on	Respondent
Home care device	Renew	Low	Price value	Competitive price	Market intelligence
Personal care device	Disrupt	Low	Need fulfilment	Unmet consumer need	Consumer marketing Manager
Garment care device	Expand	Low	Differentiator	Superior offer	Consumer marketing manager

Table 26: Case analysis low concept test score

5.5 Summary

This chapter starts with the description of cases. Then, finding from semi-structured interview related to the attributes are elaborately discussed. Cases are analysed with respect to their project categories (renew, expand, and disrupt). Cross-case analysis provided in-depth knowledge of key attributes, their relationship with each other, and the influence of the scope of innovation. The case analysis methods are also discussed in this chapter. Table 27 shows the key aspects of chapter 5.

Key attributes	Below are the attributes ranked based on their influence on acceptance of the concept by consumers based on the innovation scope: <u>Renew:</u> High influence: Competitive price, superior offer, and involvement of multi-functional team Moderate influence: Emotional appeal and brand influence, and involvement of consumers Low influence: Unmet consumer need <u>Expand:</u> High influence: Unmet consumer need, superior offer, involvement of consumers, and involvement of multi-functional team Moderate influence: Competitive price, Emotional appeal and brand influence <u>Disrupt:</u> High influence: Unmet consumer need, superior offer, additional cost, involvement of consumers, and involvement of multi-functional team Low influence: Competitive price
Key tools and processes	<u>For VP:</u> Competitor benchmarking, ideation, experience flow map, tension plot, and ideal proposition model <u>For concept validation:</u> Digital experiment, concept lab, and concept test
Critical parameters of concept	Price value, Need fulfilment, Differentiator (Uniqueness)

Table 27: Summary of chapter 5

Chapter 6: Comparative analysis of literature and practice

6.1 Comparative analysis of initial and final conceptual model

Theory

The key attributes of VP were identified from the literature review in Chapter 3. Then, it was verified with desk research at Philips. The initial conceptual model (Figure 8) for the interview was prepared based on the research from academia and literature. As per our knowledge, we have not found any literature which relates VP with the acceptance of the concept by consumers. So, the identified attributes of VP which influences organisation's competitive advantage and performance (influence on organisation's strategic, market orientation, consumers perception, and judgment) are considered as the starting point for this research. Payne et al. (2017) identified organisation-based resource and market-based resources of VP. Organisation-based resources are VP leadership support, VP formalisation, and product knowledge. These attributes can be compared to leadership support, VP formalisation, and superior offer of the initial conceptual model prepared for this thesis. Payne et al. (2017) considered VP formalisation as organisation structures and processes required to craft VP whereas in this thesis only tools and processes used to create VP are considered. Influence of organisation structure at Philips was not studied as it follows uniform organisation structure throughout the Personal Health category. Similarly, literature also identified market-based resources of VP as follows: (1) knowledge, (2) innovation, (3) relationships, and (4) brands (Kozlenkova, Samaha, & Palmatier, 2014; Payne, Frow, & Eggert, 2017a). Market knowledge is classified into two categories such as customer knowledge and competitor knowledge (Payne et al., 2017a; Shah, Rust, Parasuraman, Staelin, & Day, 2006). Customer knowledge focuses to understand consumer's life situation, goals, pain points, and available resources and capabilities. Competitor's knowledge focuses on providing superior value package to customers to meet their need. So, market knowledge and customer knowledge can be related to unmet consumer need, competitive price, and superior offer. Similarly, brand and relationship can be compared with emotional appeal and brand influence. Payne et al. (2017) stated that all these organisation-based resources and market-based resources are essential to convey superior value to the consumer. Besides these attributes, Marques da Silva & Lindič (2011, p. 3), identified non-financial costs such as "time", "risk", "search", "psychic", and "effort". Similarly, Ballantyne et al. (2011) focused on the active involvement of a wide range of actors and stakeholders in many-to-many interactions to deliver winning VP.

Literatures have given equal priority to all above-mentioned attributes of VP. This premise is verified with real-life cases at Philips. Furthermore, the role of each attribute of VP on the acceptance of the concept by consumers was not explained in the literature. Additionally, there is no clear indication of processes which leads these attributes of the VP to design highly accepted concepts by consumer and influence of the type of innovation on these processes is not studied by academic literatures. It also lacks the framework indicating tools and processes which helps to identify these attributes of VP. These are the key research gap of academia which are studied at Philips and generic conceptual models are prepared based on findings.

At Philips

“All the attributes you have mentioned here is at a different level. For example, unmet consumer need, superior offer, involvement of multi-functional team, and involvement of consumer are the basic requirement of VP. VPC practices, leadership support, additional cost, and other attributes can be hygiene attributes. These are nice to have (C5R2)”.

Similarly, C6R1 stated that it is impossible to imagine VP without involvement of consumers and multifunctional teams. Involvement of consumer is essential to find the right unmet consumer need. It is the starting point of VP. Involvement of multi-functional team is important for all renew, expand, and disrupt projects. C3R1 stated that Philips diverse cross-functional team is the key to define superior value package. Superior value package is the superiority product is offering compared to the competitions and alternatives. Philips aims to find the key differentiators and build its product around this attribute. C8R1 mentioned during the interview that competitive price is highly dependent on brand value and the emotional appeal product is creating on its target consumers. The higher is the brand image of the product the better is the scope for the organisation to set a higher profit margin. Competitive price can be achieved by higher sales volume in the target market. This also provides liberty to the organisation to set premium price compared to existing similar products. C2R2 mentioned that for renew project competitive price and superior value are the most crucial elements. Unmet consumer need is also important but, in most cases, it is already known for renew projects from previous propositions. C6R2 mentioned that *“in my view, unmet consumer need and superior offer are the critical variables for expand project. It aims to build on the existing proposition by offering new benefits. So, these benefits can be derived from identified the most important unmet need.”* C9R1 suggested that unmet consumer need, superior offer is the key attributes for disrupt project as the proposition is defined from the scratch. The importance of additional non-financial cost in disrupt project is highlighted by C8R1, C8R2, C9R1, and C9R2. The statement of C8R2 on additional cost is given in Table 28.

Interviewees are asked about the attributes of VP as mentioned in Appendix 10. They are also asked about their opinion on role of these attributes. This clearly helps to categorise the attributes as independent variable or moderator. Table 28 indicated role of each attributes, the key statement about role of each attribute, and the opinion of each interviewees on role of each attributes. The details on roles of each attribute which will be elaborately discussed in *finding* section.

Attribute	Key Statements	Types of variable	Interview analysis
Unmet consumer need	“It is the most important variable for defining compelling VP. The first task of the core team is to find the most crucial unmet consumer need (C9R1).”	Independent	Respondent of all cases identified it as independent attribute
Involvement of consumer	“Involvement of consumer is vital during the exploratory research. This is the initial stage of research. It helps to find right unmet consumer need (C5R1).”	Moderator	Respondent of all cases identified it as moderator
Superior offer	“Another important aspect of the VP is superior offer. These are the key differentiator. Philips aims to find these differentiators which can provide unique proposition (C1R2).”	Independent	Respondent of all cases identified it as independent attribute
Competitive price	“For renew projects competitive price is essential. It can differentiate it from the existing proposition as renew project does not emphasise so much on superior offer (C4R1).”	Independent	Respondent of all cases identified it as independent attribute
Emotional appeal and brand influence	“Emotional and brand association influences competitive price.”	Moderator	C2R1, C2R2, C3R1, C3R2, C7R1, C7R2, C9R1, C9R2 strongly emphasized the role of this attribute as moderator
Involvement of multi-functional team	“Involvement of multi-functional team is crucial throughout the VPC process – re-sight, idea exploration, evaluation, and concept validation. Multi-functional team is essential for renew, expand, and disrupt projects (C3R2).”	Moderator	Respondent of all cases identified it as moderator
Additional non-financial cost	“Disrupt project involves high consumer, market, and product research. So, it needs more time, effort, and search. additional non-financial cost can be important to disrupt projects to find unmet consumer need, competitive price, and superior offers (C8R2).”	Moderator	C1R1, C8R1, C8R2, C9R1, C9R2 strongly emphasized the role of this attribute as moderator
Other attributes	“Other attributes which you have mentioned – VPC practices, leadership support, and other aspects are hygiene attributes. These are nice to have but these are not at equal level as other attributes (C7R1).”	Hygiene attributes	Respondent of all cases agreed rest of the attributes as hygiene factors

Table 28: Key attributes and its role

Findings

It can be stated from analysis of interview results that all attributes identified during the literature review and desk research at Philips do not have equal influence on the acceptance of the concept by consumers. There is a difference between academia and practice.

So, the key findings from the interview (Table 25) can be listed down as follows:

1. Unmet consumer need, competitive price, and superior offer are the independent attributes
2. Involvement of consumer is most needed to define unmet consumer need. However, it is also essential to define superior offer and competitive price.
3. Involvement of multi-functional team is crucial to define all three independent attributes
4. Emotional appeal and brand influence contribute most to the competitive price. It also has influence on superior offer.
5. Additional non-financial cost governs identification of unmet consumer needs and superior offer
6. VP formalisation, leadership support, and other aspects are the hygiene attributes

Above findings laid the foundation of the final conceptual model. Figure 10 shows the basic elements of the final conceptual model.

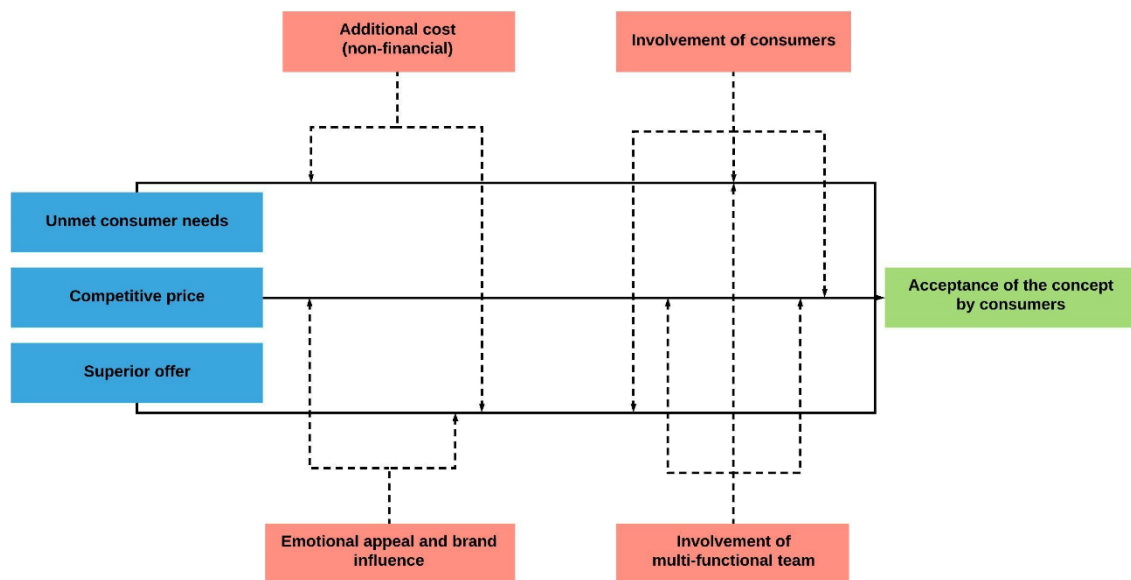


Figure 10: Final conceptual model

These results are verified with interviewees. Post-result analysis discussion is conducted with the participants individually. However, the result is discussed with 10 interviewees out of 18 due to the availability and time constraint. Additionally, these results are checked with 5 additional VPC experts of Philips who are not part of this thesis work to get unbiased result.

These VP experts are represented as Additional Respondent (AR) in this thesis. Details of the interviewees and interview questions are discussed in Appendix 10. Following are the main questions which interviewees are asked.

1. Which are the independent attributes and moderators?
2. Which are the key independent attributes that most influenced by these moderators?
3. Which are the key attributes for renew, expand, and disrupt project?

Then, these results are matched with the findings of the semi-structured interview. Table 29 shows the attributes on which moderators has maximum influence.

All participants agreed that the involvement of consumers is most crucial to define unmet consumer needs. C8R2 stated that *involvement of consumer also helps to define the superior benefits*. AR1, AR2, and AR5 emphasised the influence of involvement of consumer needs on all three independent variables. AR represents Additional Respondents. However, I will agree with the result as superior benefits can be considered as an add-on to the basic product but identifying the right consumer need is the starting point of value proposition creation process. It is difficult to separate. If you identify the right unmet consumer need and develop it further, it can be the differentiator. So, let's put it this way - unmet consumer need is the first step and developing it as superior benefit competitive price can be the next steps. All participants agreed that involvement of multi-functional team is critical to define unmet consumer needs, competitive price, and superior offer. Similarly, all interviewees agreed that emotional appeal and brand influence contribute most to the competitive price. However, external interviewees agreed on the influence of it on superior offer. AR4 stated that *brand value of the organisation helps to provide superior value*. 13 out of 15 interviewees agreed with the result that additional cost is mostly required to identify right unmet consumer needs and superior offer. However, 2 out of 15 interviewees suggested that it also influence the competitive price as extensive competitor benchmarking requires for price setting. In some cases, this task is given to external agencies which need additional cost in terms of time and effort. However, researcher decided to keep the result same as before based on the following rationale - *competitor benchmarking is a continuous process at Philips. Hence, it may not need additional non-financial cost dedicated only for a specific project. Philips also has benchmarking database where independent research and competitor scanning happen continuously for the whole category. However, unmet consumer needs and superior benefits are specific to the project and vary based on the scope of the project. So, the additional non-financial cost is more essential to define these two parameters as per the researcher*.

Attributes	Maximum influence on	Agreement %	Disagreement %	Additional comment
Involvement of consumers	Unmet consumer need, superior offer, and competitive price	100%	0%	All 15 respondents agreed on influence of involvement of consumer on identified attributes.
Involvement of multi-functional team	Unmet consumer need, superior offer, competitive price	100%	0%	All 15 respondents agreed on influence of involvement of multi-functional team on identified attributes.
Emotional appeal & brand influence	Competitive price, superior offer	100%	0%	All 15 respondents agreed on influence of emotional appeal & brand influence on identified attributes.
Additional cost	Unmet consumer need, and superior offer	86.7%	13.3%	Include competitive price as well. (2 out of 15 interviewees – C9R2, C7R1).

Table 29: Post result analysis discussion (Role of attributes)

Additionally, the key attributes identified to renew, expand, and disrupt project from case analysis is verified with the participants during post result analysis discussion. Below are the main questions asked to the respondents during post-result analysis discussion.

1. What are the key attributes for renew project out of all identified attributes?
2. What are the key attributes for expand project out of all identified attributes?
3. What are the key attributes for disrupt project out of all identified attributes?

Their results are matched with the findings and further discussed after getting the unbiased answers from respondents. These discussions are performed on one to one basis. Table 30 shows the details of the discussion.

Project type	Key attributes	Agreement %	Disagreement %	Additional comment
Renew	Competitive price, superior offer	100%	0%	All 15 respondents agreed on identified key attributes with respect to their specified project type.
Expand	Unmet consumer need, superior offer	100%	0%	
Disrupt	Unmet consumer need, superior offer, and additional cost	100%	0%	

Table 30: Post result analysis discussion (attributes for renew, expand, disrupt)

Theoretical frameworks

Theoretical Framework 1: Sprint for VPC process and concept development

As defined by Tim Brown, executive chair of IDEO, a sprint of VPC process consists of Inspiration, Ideation, and Implementation (Adikari et al., 2013; “IDEO Design Thinking,” 2019). At inspiration phase, opportunity is explored. Ideation phase involves generation, prioritisation, and optimisation of ideas. Similarly, implementation phase involves concept prioritisation and validation. Framework 1 describes the step by step VPC process to concepts validation in one sprint. This theoretical framework is established based on the findings as shown in Figure 10, Table 29, and Table 30

1. It shows step by step approach to govern VPC process by managers during each sprint. These sprints can be reviewed, edited, and iterated until development of concept which is validated with high acceptance score.
2. It shows relationship among VPC process, concept development, and innovation process. This can provide managers guidance to design VPC pathways based on innovation type. It can help to reduce the number of iterations, time, and cost involved in FFEI by providing structure to VPC process.

Figure 11 shows the theoretical framework 1.

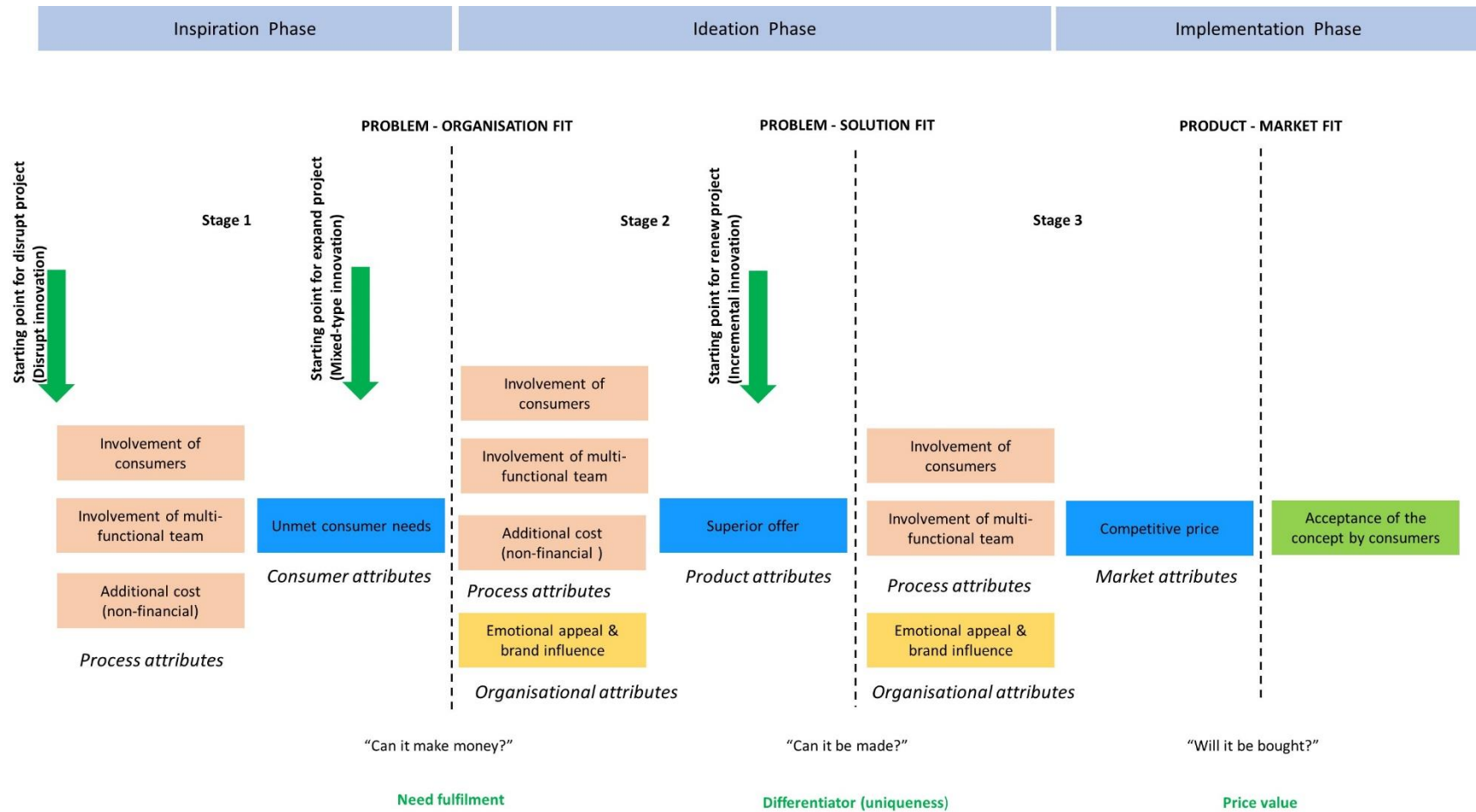


Figure 11: Sprint of VPC process

Stage 1: Problem – organisation fit

This stage is also called as the opportunity exploration stage. At Philips, it is known as the inspiration and re-sight phase. *This stage aims to identify unmet needs and opportunities in the market that can be addressed to drive growth for the business.* This stage checks for problem and organisation fit. The identified problem should match with the vision and mission of the organisation. Furthermore, the organisation should have enough resources and capabilities to fulfil these unmet consumer needs. The opportunity mapping is performed by looking at market sizes, market share, source of business, total addressable market size, product segment, benefit comparison, price segments, and competitors benchmarking. The key *process attributes of stage 1* are *involvement of consumers, involvement of multi-functional team, and additional cost.* *Unmet consumer need* is the key *consumer attribute*. The essence of this stage is to understand if the identified opportunity can make money for the organisation. The success criterion of the acceptance of the concept by consumers can be measured by need fulfilment.

Stage 2: Problem – solution fit

This stage focuses on developing ideas based on the opportunities and identified unmet consumers need. Then the ideas with highest potential are identified and prioritized for further development and optimization. At Philips, it is known as the idea exploration phase. The focus of this stage is to find the ideas which address the opportunities in the market and the tensions of the target consumers. These ideas are prioritized based on Unique Selling Point (USP) of the organization, differentiators compared to competitors, and consumer preferences. The key *process attributes of stage 2* are *involvement of consumers, involvement of multi-functional team, and additional cost.* The key *organisational attribute at stage 2* is *emotional appeal, and brand influence.* *Superior offer* is the key *product attribute*. The success criterion of the acceptance of the concept by consumers can be measured by uniqueness (differentiator) at this stage.

Stage 3: Product – market fit

This stage focuses on assessing identified *benefits and features* over existing solutions and This stage focuses on assessing identified *benefits and features* over existing solutions and alternatives. Competitor benchmarking is the key process in this stage. *Ratings and reviews, search / social listening, and trend analysis* are the processes to identify product and market fit. *Ratings and reviews* help to *identify key drivers and detractors of existing products in the market.* Similarly, *Search / social listening* checks what consumers are saying about competitors' products and *trend analysis* reviews current trends in the market. The key *process attributes of stage 3* are *involvement of consumers and involvement of multi-functional team.* The key *organisational attribute at stage 3* is *emotional appeal, and brand influence.* *Competitive price* is the key *market attribute*. The success criterion of the acceptance of the concept by consumers can be measured by price-value.

These three stages should be checked to understand the problem-organisation fit, problem-solution fit, and product-market fit. At the end of the sprint, concept is developed which can be checked with consumers qualitatively through virtual community or face to face interaction. The sprint requirements are edited and iterated based on consumer feedback. The concept should be validated quantitatively at the end of the VPC process.

It further shows the starting point for VPC process and concept development for disrupt, expand, and renew project. Disrupt projects are the projects which involves disrupt innovation for organisation. *Disrupt project starts from the beginning of stage 1 as it needs extensive consumer, market, and product research. Competitive price, emotional appeal and brand influence has low importance as consumers are willing to pay high if the product is catering the unmet consumer needs which no other competitors are fulfilling.* Details of disrupt project is shown in *Appendix 11*. The attributes which has low importance is shown in lighter shade compared to similar attributes.

Expand projects involves properties of disrupt and incremental innovation. For this thesis innovation is considered as the newness for the organisation. So, in expand projects few features of the new the specific category. However, it may happen that the knowledge is available in different category at Philips or partner organisations unlike disrupt organisation. So, it is a mix of disrupt and incremental innovation. *Expand project starts at the later phase of Stage 1 as initial exploratory research can be taken from pervious proposition. Additional non-financial cost is shown as has low importance as the consumer, market, and product research can be used from existing proposition. All other features are same as disrupt project.* Competitive price, emotional appeal and brand influence has medium influence. *Appendix 12* shows details of the expand project.

Renew projects are the projects which involves incremental changes. *Renew project starts at the later phase of stage 2. Renew projects are derived from existing proposition. In most cases exploratory research is not essential for this type of projects. So, stage 1, additional non-financial cost, and involvement consumer has low influence in renew project* as shown in Figure 8. Consumers are only involved in prioritisation and validation of concepts. *Appendix 13* shows details of the renew project.

Theoretical Framework 2: Tools and practices to define attributes of VPC process and concept

Theoretical framework 2 provides insights on all key tools and processes required to identify the most important attributes of VP to generate concept which has a high chance of acceptance by consumers. Figure 12 shows this framework. These tools and processes are compared with the tools and processes suggested to define the selected attributes of VP in literatures. Table 31 shows these comparisons. In this section main emphasis is given to similar tools and processes from literatures. The tools and processes followed at Philips are already discussed in Chapter 4 and 5. Section 4.3.2, 5.2.2, 5.2.3, and 5.2.4 elaborately discusses on these tools and processes. Appendix 8 describes each tools and processes.

Unmet consumer need

The first step to understand unmet consumer need is to define the target market. Target market can be defined based on shared group characteristics. These can be demographic segment (based on age, job description, salary etc.), psychographic segmentation (e.g. taste in music, lifestyle – rural or urban etc.), use-based segment (frequency of use, traveling etc.), benefit segment (luxury, economic, or comfort driver), and geographic segment (location) (Pruitt & Adlin, 2010). After defining the market segment, it is essential to define “user persona”. User persona defines personal profile and job. Consumer journey map further shows a day in consumer life before introduction of the product, consumer pain-point, frustration, and product description. It also captures a day in life of consumer after introduction of the product description (Moore, 1991; Osterwalder, Pigneur, Bernarda, & Smith, 2015). McKinsey (2009) defined a model which is known as Customer Decision Journey mapping which shows the triggers that motivates the consumer buying decision which starts from initial consideration set, active evaluation, the selection process at the moment of purchase, post-purchase experience, and loyalty loop. Hooley, Greenley, Cadogan, & Fahy, (2005) developed a matrix which shows how to combine the target consumers unmet needs with different strategies based on the available resources. This helps to focus on the unmet need which organisation can focus on based on its available resources and capabilities.

In the case studies most focus is given to ethnographic segments, demographic segments, and geographic segments. Literature and Philips have commonality on the use of market segmentation chart (known as target group mapping and source of business mapping at Philips), user persona, customer journey map, and CDJ mapping. Consumers are mostly involved via. focus group and online community at Philips.

Involvement of consumers

As mentioned above consumers are involved in initial exploratory research or qualitative study to identify the right consumer need or want. Besides this, consumers are an essential part of ideas generation, ideas evaluation, concepts generation, and concepts evaluation. For the qualitative study, consumers are involved through different ways such as focus group, online survey, one to one personal interviews, online communities, and prototype evaluations (Geusen, Hultink, & Eling, 2013). There are several methods for concept evaluation with consumers e.g. Dot sticking (voting), Delphi method, and SWOT analysis. In dot sticking method selected participants are given with 3 to 5 concepts and asked to put a dot or select a most preferred concept (in online medium). The concept with the highest voting is selected

(Wu, Corney, & Grant, 2015). Delphi method is an iterative method where a panel of experts participates anonymously. It continues for two to three rounds. In the first round, the experts are asked a series of questions and results are consolidated. Then, the same procedure continues until all participants agree on the forecast. This method can be followed with lead users to understand the forecast for concept evaluation (Cheng & Lin, 2002).

At Philips consumers are mostly involved in exploratory research and concept evaluation. Focus group and online community are the most followed methods to involve consumers. Consumers are involved in all processes mentioned above to identify the unmet consumer needs. Besides, consumers are also involved in the concept test (both qualitative and quantitative). Qualitative tests are mostly focus group. Quantitative concept test can be comparable to dot sticking (voting) method as mentioned in literature which is carried out in an online medium.

Superior offer

Brainstorming is the most effective approach to generate a superior offer. These can be motivated by customer-defined needs (focus group, reviews, customer complaints etc.), scientific research (new technology and applied research), competitor positioning (competitor is offering superior offer), top management influence (new vision and mission of company), or company dealers and channel (sales representative, personnel who has direct or indirect feedback from consumers) (Paulus & Yang, 2000). Six Thinking Hats is another tool commonly used for parallel thinking and decision making. It generally used for group discussion where team members openly bring different perspective (Bono, 2017). The morphological chart is an effective method to visually capture product function and alternatives. This can help to combine the required feature to develop the desired product (Yang, 2008). Furthermore, TRIZ is another mostly used knowledge base, tools and systematic methodology which helps to generate ideas by using problem-solving approach. It helps to define the problem, pattern matching, and failure analysis (Herstatt & Verworn, 2004). Delphi techniques are also used to define superior offer.

Brainstorming is commonly known as the ideation process. This is an essential process to define superior offer along with the multi-functional team. Here, the superior offer mainly focuses on defining product features to meet unmet consumer need. Philips involve experts with diverse ethnic, culture, and domain knowledge. This helps to generate parallel thinking as mentioned in Six Thinking Hats process in literature. Morphological chart and TRIZ methods can be compared to Ideal proposition model of Philips. Besides, patent scanning, technology comparison, and user stories are the most helpful to define superior offer as found from the result analysis of the cases.

Competitive price

There are several tools and processes which can be useful to define competitive price such as technology trend analysis, customer trend analysis, competitive intelligence analysis, and market research (Belliveau, Griffin, & Somermeyer, 2004b). Competitor analysis is a strategic tool to assess potential competitors and alternatives. It helps to understand competitors positioning and strategy. So, this can be an effective tool for competitive price setting. Competitive intelligence focuses on strategic aspects of competitors, consumers, products, and technology (Gordon, Tarafdar, Cook, Maksimoski, & Rogowitz, 2008). Technology trend

analysis and consumer trend analysis comes under competitive intelligence analysis. The first part focuses on current and future trend of technology. Consumer trend analysis shows the shift in consumers behaviour, buying habit, frequency, and perception. Porter's five forces, SWOT analysis, and BCG matrix are most commonly used tools to define competitive intelligence. Porter's five forces show five-force framework as follows: bargaining power of buyers, threat of entrants, bargaining power of suppliers, threat of substitutes, and competitor rivalry (Belliveau et al., 2004b). SWOT analysis mainly focuses on organisation's strengths, weakness, opportunities, and threats (Achiche, Appio, McAloone, & Di Minin, 2013). Similarly, BCG matrix reflects on company's portfolio based on the market growth and the product's market share (BCG, 1968). These tools help to define organisation's position, differentiation, and cost-structure.

Competitor benchmarking is the key tool used in the cases to define the competitive price. It can be compared with competitor analysis and competitive intelligence analysis as given in the literature. Rating & review analysis, trend analysis (consumer, product, and technology), and social listening are the key tools used at Philips to perform competitor and competitive intelligence analysis.

Emotional appeal and brand influence

Customer touchpoint creation, loyalty program, word of mouth marketing, viral marketing, customer retention programs are few mostly used tools for customer relationship management (Malthouse, Haenlein, Skiera, Wege, & Zhang, 2013). Besides this Customer-Based Brand Equity (CBBE) and brand identity prism are the tools which help to create emotional appeal and brand influence. Keller's Brand Equity Model is also known as Customer-Based Brand Equity (CBBE). It focuses on steps to create brand awareness, meaning (brand image), brand feeling, and brand loyalty (Netemeyer et al., 2004). Kapferer brand identity prism is another tool which defined six elements to create brand identity as follows: physique (physical characteristics of brand), personality (brand's creative assets), culture (brand's value), relationship (with customers), self-image (customers' perception), and reflection (brands network base) (Azoulay & Kapferer, 2003).

Consumer touchpoint creation, loyalty program, word of mouth marketing, consumer relationship management are the key principles used at Philips to create emotional appeal and brand influence. Contextual parameter analysis plays a significant role in defining VPC and concept. Impact of emotional appeal and brand influence on the acceptance of the concept by consumers depends on product type, category, target market, competitor position etc. Customer-Based Brand Equity (CBBE) and Kapferer brand identity prism are not followed in analysed cases.

Involvement of multi-functional team

Murphy & Kumar (1997) focused involvement of cross-functional core team during brainstorming or ideation process. It is essential to have members with different domain experience for consumer, market, and product knowledge during exploratory study, idea generation, idea evaluation, concept generation, and evaluation. Ballantyne et al. (2011) focused on integration of resources which can happen between multiple actors and stakeholders or with the network of actors and stakeholders throughout the supply-demand chain. They focused on involvement of stakeholders outside core team for effective VP creation and potential risk reduction.

Involvement of multi-functional and diverse team is very essential for brainstorming. Both literature and Philips agree on it. However, Philips limits the involvement of stakeholders outside Philips for ideation and concept generation. Besides the multi-functional team, consumers and external partners are involved during exploratory study and concept evaluation.

Additional cost

Silva & Lindič (2011, p. 3) and Barnes et al. (2009) pointed out that apart from financial costs consumers and organisations considers non-financial costs such as “time”, “risk”, “search”, “psychic”, and “effort”. These non-financial costs are considered throughout the VP and concept development phase for all tools and processes.

Both Philips and academia agrees on the importance of additional cost for VPC and concept development process due to its creative and unpredictable nature.

Elements of conceptual model	Key process and tools from Philips (Refer Figure 9 for details)	Sources for Philips	Key processes and tools from literature and sources
Unmet consumer need	Processes: Focus group Usage mapping (Ethnography, community, and In-home) CDJ mapping Review analysis Tools: Target group mapping Experience flow map	Refer Table 4, Table 17, Table 24, and Appendix 5	Market segmentation chart (Pruitt & Adlin, 2010) User persona (Osterwalder, Pigneur, Bernarda, & Smith, 2015; Pruitt & Adlin, 2010) Customer journey map (Osterwalder et al., 2015; Pruitt & Adlin, 2010) CDJ mapping (McKinsey, 2009) Customer, strategy, resources matrix (Hooley, Greenley, Cadogan, & Fahy, 2005)
Competitive price	Process: Competitor bench marking (R&R, trend analysis, and social listening) Tools: Ideation sessions		Competitor analysis (Belliveau et al., 2004b) Competitive intelligence analysis (Gordon et al., 2008) Technology trend analysis Customer trend analysis BCG matrix (BCG, 1968) SWOT analysis (Achiche et al., 2013) Porter's five forces (Belliveau et al., 2004b)
Superior offer	Process: Patent scanning Technology comparison User experience study Tools: Ideal proposition model Ideation session		Brain storming (Paulus & Yang, 2000) Delphi techniques (Cheng & Lin, 2002) Morphological charts (Yang, 2008) Six thinking hats (Bono, 2017) TRIZ- Idea generation tool using problem solving (Herstatt & Verworm, 2004)
Emotional appeal and brand influence	Process: Community (Virtual / face to face) Consumer relationship management Contextual parameter analysis Tools: Claim storm workshop Ideation session		Customer touchpoint, loyalty program, word of mouth marketing, viral marketing, customer relationship management (Malthouse et al., 2013). Customer-Based Brand Equity (CBBE) (Netemeyer et al., 2004) Kapferer brand identity prism (Azoulay & Kapferer, 2003)
Involvement of multi-functional team	Process: Involvement of core team Involvement of additional member Tools: Tension and insight identification Ideation session		Involvement of core team (Murphy & Kumar, 1997) Involvement of stake holder (Ballantyne et al., 2011) Brainstorming / ideation (Murphy & Kumar, 1997)
Involvement of consumers	Processes: Focus group Usage mapping (Ethnography, community, and In-home) CDJ mapping Review analysis Tools: Target group mapping Experience flow map Co-creation workshop Concept test		Market segmentation chart (Pruitt & Adlin, 2010) User persona (Osterwalder et al., 2015; Pruitt & Adlin, 2010) Customer journey map (Osterwalder et al., 2015; Pruitt & Adlin, 2010) CDJ mapping (McKinsey, 2009) Customer, strategy, resources matrix (Hooley et al., 2005) Qualitative study (Geusen, Hultink, & Eling, 2013) focus group, online survey, one to one personal interviews, online communities, and prototype evaluations etc. Concept evaluation methods: Dot sticking (voting) methods (Wu, Corney, & Grant, 2015) Delphi method (Cheng & Lin, 2002)
Additional cost	Process: Search, effort, time, psychic, and risk involved in consumer, product, market, and technology research		Additional non-final cost throughout VPC and concept development phase (Silva & Lindič, 2011) (Barnes et al., 2009)

Table 31: Comparison of tools and processes from Philips and literature

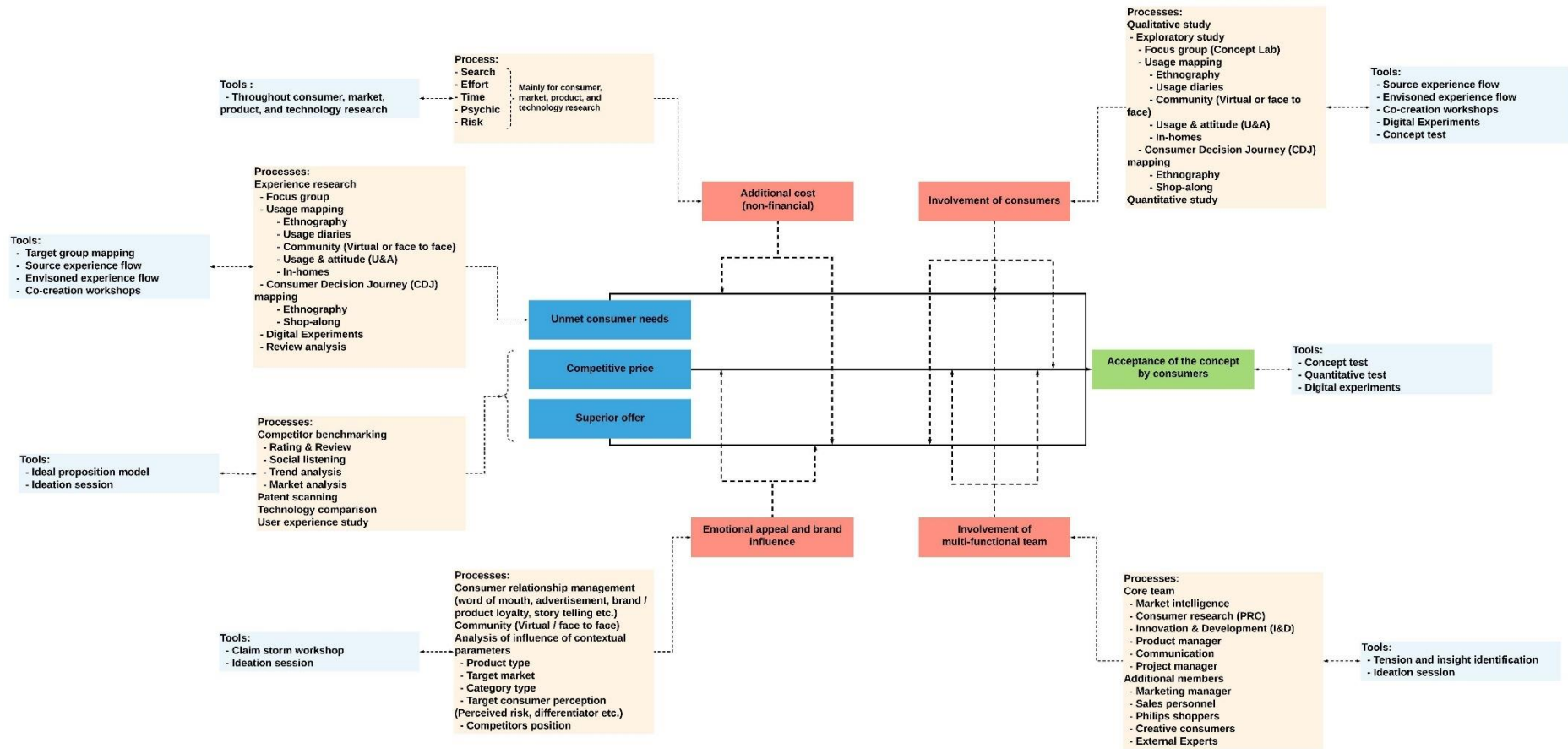


Figure 12: Tools and processes of VPC (Theoretical framework 2)

Similarities between literature and Philips with respect to conceptual model and frameworks

1. The processes identified in the literature to manage fuzzy front-end innovation is also followed by Philips. The FFEI processes identified in the literature are opportunity exploration, idea generation, idea evaluation, concept generation, and concept evaluation (Gassmann & Schweitzer, 2013). Similarly, Philips classified these processes as inspiration & re-sight, idea exploration, idea evaluation, and concept validation (Corporate slide Philips, 2019).
2. The main similarity between Philips and literature is the attributes mentioned in literature is also identified in the Philips database and real-life cases. So, this provided a common ground to start the research process.
3. Literature has given a lot of emphasis on the importance of consumers involvement in the VP process for the acceptance of the concept by consumers. It becomes the most important attribute in the last few decades as organisations are becoming more consumer-centric (Ballantyne, 2003). Philips also understands the importance of finding the right consumer need and involvement of consumer throughout the exploration and validation phase.

Differences between literature and Philips with respect to conceptual model and frameworks

1. As suggested by Payne et al., (2017a), VPC process lacks a theoretical framework. So, the initial conceptual model is prepared by finding the attributes of VP from different literatures as mentioned in chapter 3. However, the importance of different attributes of VP on the acceptance of the concept by consumers was not known as we did not find any literature which showed the relationship among VP and acceptance of the concept by consumers. So, to streamline the VPC process final conceptual model identifies the key attributes of VP based on the case analysis result.
2. We did not find any literature which shows the role of each attribute towards the acceptance of the concept by consumers. The final conceptual model identifies the key attributes which directly or indirectly influences the acceptance of the concept by consumers. For example, unmet consumer need directly influences the acceptance of the concept by consumers whereas the involvement of consumer helps find the right unmet consumer need. So, the involvement of consumers indirectly influences the acceptance of the concept by consumers.
3. The initial conceptual model derived from literature studies does not show the relationship between the attributes. However, the final conceptual model shows the relationship among attributes e.g. the influence of emotional appeal and brand influence on competitive price.
4. Framework 1 is constructed from the final conceptual model. It shows the step by step approach to designing a sprint of the VP creation process to generate concepts which will have a higher chance of acceptance. It gave a structure to the VPC process. Furthermore, it shows the starting point of the VPC process as per different innovation type (disrupt, expand, and renew). This will help the manager to design the VPC pathway as per innovation type.
5. Framework 2 is also constructed from the final conceptual model. It shows the tools and processes required to define the attributes of the VP and concept. This can work as a complete guideline to define each attribute of VPC process.

6.2 Comparison of additional findings between Philips and literature

Difference 1: Influence of involvement of consumer

Literature:

Scholars from academics highly suggest involvement of the consumer throughout the idea generation, concept generation, and evaluation phase. Vargo & Lusch (2004) suggested that organisations should directly and actively involve in co-creating the value proposition with consumers. Additionally, organisations and consumers should integrate resources while actively interacting to create value for each other throughout the entire product or service usage cycle (Grönroos & Voima, 2013). Shocker & Srinivasan (1979) suggested direct involvement of consumers to generate ideas. This leads to identification of specific need as well as market need. They argued that the strength of idea generation is highly dependent on interaction with consumer base. Similarly, von Hippel (1982) stated that consumers are invaluable for idea generation phase as they can suggest the need of market. So, there is a common agreement in academia on involvement of the consumers throughout the VP creation process.

At Philips:

C2R1 mentioned that involvement of consumer plays a significant role during the exploratory stage of the project to find the unmet consumer need. So, Philips generally follow concept lab (focus group) and virtual communities to explore consumers' needs. C5R2 stated that consumers role is crucial in ideas and concepts validations. Concept test involves a large number of consumers to validate concepts. However, most of the VPC experts agree that Philips does not prefer to involve consumers in idea and concept generation and prioritisation phase. C3R1 stated that *"VPC experts at Philips work days together to find the solution for the current problem. Experts are also users who can put themselves in the shoes of consumers. So, there is a high chance that experts will come up with a better solution compared to the consumers. I would rather prefer involvement of multi-functional team who are experts in different domain compared to involvement of consumers. Consumers say what already exists with competitors or other products. It is rare to find something completely new from consumers. Consumers may be helpful to incremental solutions but not the disruptive ones."* Academia also supports utilising creative talents of employees of the organisation to generate R&D ideas. The product knowledge gained by experts over years of experience can be the crucial creative force to generate ideas to fulfil market needs (Altier, 1988). However, it also recommends involving consumers during the ideation phase. C4R2 stated that there is a threat to the intellectual property of Philips with the involvement of consumers in the ideation process. Organisation needs to be careful while sharing the confidential details with external members.

Recommendation:

Followings are the recommendations of the researcher to make co-creation process most effective.

1. Creative consumers can be involved during ideation process. These are the talented individuals in the required specific field of the project.

C1R1 mentioned that “specific consumers who are creative can be useful to generate ideas. However, selection of these type consumers’ needs additional non-financial cost.”

von Hippel (1982) suggested involving lead users in idea generation phase. Lead users are the enthusiast who identifies present strong need which will come to the general marketplace after months or years in the future.

2. Involvement of consumers should be done in a controlled environment. Currently, Philips is already conducting validation of its product under a controlled environment. So, co-creation with creative consumers will be no different than the above-specified tests. However, it is always recommended to ensure the protection of intellectual properties.

Difference 2: Influence of VP formalisation and leadership support

Literature:

Osterwalder, Pigneur, Bernarda, & Smith (2014) emphasises the role of VP formalisation. VP formalisation is the structure and the process organisation use to craft VP. VP formalisation help organisation to utilise the organisation-based and market-based resources effectively. Formalisation includes cross-functional processes by structuring consumer, product, and market intelligence. It further utilises the consumer interaction which can help to design compelling VP. So, VP formalisation is a crucial tool for creation of desired VP. MacKenzie, Podsakoff, & Rich, (2001) stated that leadership support helps to align vision, mission, commercial and technical goal across the organisation which helps to implement the strategic plan to design desired VP. The leader is responsible for communicating the project interest among the core team from start of the project. Leader is responsible for allocating resources and support, communicating commercial and technical issues from early product or project definition and planning stage. Additionally, “establishing the core team early, clearly defining roles and responsibility for the team, and facilitating supporting communications plays a major role in success of product development and market launch” (Khurana & Rosenthal, 1997, P.109). Hence, leadership support plays a significant role in defining scope, timeline, communication, and resources allocation for VP creation process.

At Philips:

Literature suggests that well-established VP formalisation and best practices improve the effectiveness of VPC processes. However, as per C4R2, *the influence of VP formalisation and best practices is good to have until the employee has the liberty to customise it. However, standardising best practices kills creativity and slows down the VPC process.* As per literature involvement of business leader during value proposition, creation helps to share vision and mission of the organisation. It further gives clarity on the scope of the project, timeline, commercial, and technical goals of the organisation. However, it is observed that there is a clear difference between academia and practice. It is difficult for higher management to provide clarity on the above parameters due to the uncertainties associated with the concept development process. Top management also takes decision along the VPC pathway on the future of the project. However, in most cases, higher management fails to provide clear communication to the core team about the commercial and technical goals. Section 5.2.1 elaborately discuss the findings from interviews on leadership and formalisation.

Recommendation:

Followings are the recommendations of the researcher based on the finding from literature and interviews to improve VP formalisation and leadership support.

1. Philips VPC experts think that VPC tools and processes are helpful to guide and it should be used for direction. However, it should not be made compulsory to follow. VPC process is a creative process. So, the VPC members should have the liberty to customise the tools based on the requirement. It is essential to have right balance of organic and mechanistic organisation structure.
2. VPC training and coaching should be planned properly. It should be given before starting the VPC projects. Regular meeting with VPC core members helps. Weekly meeting with VPC co-ordinators across the PH categories which helps to share knowledge and guidance.
3. Philips VPC guideline suggests an extensive list of 29 tools and processes for VP and concept validation. However, from interviews, it is clear that competitor benchmarking, ideation, experience flow map, tension plot, and ideal proposition model are essential tools and processes to identify attributes of VP. Similarly, digital experiment, concept lab, and concept test are the key tools for concept validations. Identification of these tools and processes can help to the VPC team to focus on these key tools to define VP and concept test rather than going through the extensive list of tools and processes.
4. It is recommended to carry forward VPC activities continuous at a stretch rather than involving VPC activities along with regular work. For example, ideation (sprint 1) should continue at a stretch for 3/5-days and then participants should be given enough time to analyse the result. However, it discontinues the flow if the ideation will be planned for 1 or 2 days per week for 3 weeks along with regular work for the rest of the days of the week. Same approach should be followed in ideation (sprint 2) and henceforth. However, this needs support of higher management.
5. It is observed that if VPC workshops are conducted in different locations than Philips office setups that increases the effectiveness of the VPC process. It is observed that team members become more creative, open, and challenges the status quo. However, choosing an external location and involving external team members (creative consumers, shoppers, and market) needs additional budget and leadership support.
6. It is essential to define the scope of the project from the start. In 5 out of 9 projects, the project VPC pathway changed from initial decision along the course of the journey. The change of the decision is due to lack of budget, technological constraint, increase in the timeline, suspicion of similarity of idea with competitor in future etc. In most cases, it is due to the lack of definite strategy, vision, and ability to take the right decision at right time. This increases timeline, budget, and also demotivates employees.
7. It is essential to have an alignment of the stakeholders from the start of the project. Higher management from technical, commercial, and communication team should define the goal and vision. This should be communicated to each core team members. This process should be repeated if there is any change with respect to goal and vision.

Difference 3: Influence of multiple stakeholders

Literature:

Murphy & Kumar (1997) suggested that the core team are responsible to reduce the uncertainty related to consumer need, technical and market challenges, and the resources required to create the VP. So, in a task group, every person plays different roles as their position in the organisation. The task group contains members with different domain experience. For example, marketing project members are responsible to reduce the uncertainty related to consumer need, competitor's strategy and positioning, marketing resources essential for smooth completion of the project. Similarly, R&D members are responsible to reduce uncertainty related technology, competitor's strategy and positioning related to the technological application, R&D resources essential for smooth completion of the project. Besides, multi-functional team, academia suggests involving wide range of external members and stakeholders in many-to-many interactions to create unique proposition. Ballantyne et al. (2011) stated that integration of resources can happen between multiple actors and stakeholders or with the network of actors and stakeholders throughout the supply-demand chain. This diverse knowledge of different stakeholders brings new ideas and it also reduces the risk associated with it. So, it is essential for the organisation to involve multiple stakeholders within and outside the organisation to gain different perspectives and to create a compelling value proposition.

At Philips:

Academia emphasizes the involvement of stakeholders throughout the VPC process. Similarly, interviewees of Philips agree that involvement of diverse, multi-national, multi-cultural, and cross-functional teams brings different perspective to the existing problem and its potential solution which enriches the ideation process. However, C3R2 stated that *"it is observed in some cases difference of opinion slows down the VPC process. This is the contrast core team faces due to involvement of the multi-functional team. The benefit of involvement of multi-functional team is the diverse opinion whereas sometimes this creates differences which lead to non-decision."* According to C7R1, at Philips multiple stakeholders mostly means cross-functional teams. Involvement of external member during ideation process is very limited.

Recommendation:

Followings are the recommendations of the researcher to make the ideation process most effective.

1. Involvement of higher management is essential to take decision when core team member has different opinion about the same topic. Involvement of external member can also be useful as they can provide unbiased opinion. C6R1 stated that market data and statistical data can be a strong tool to resolve conflict in core team.
2. Philips should not be limited only to involvement of multi-functional team during ideation process. C1R1 suggested Philips could involve Philips shoppers and market (Philips sales team) during ideation as they interact to consumers on day to day basis. So, they can provide updated market knowledge on consumer preference, brand trend, and technology trends.
3. It is observed that the involvement of external members e.g. VPC experts from different category of Philips makes the VPC process more efficient. This is due to the knowledge

sharing, fresh insight and unbiased opinion on ideas and concepts. Sometimes the core team members become biased to specific ideas due to their long association with problem and knowledge from previous similar projects.

Difference 4: Influence of emotional appeal and brand association

Literature:

Payne et al. (2017) mentioned that it is difficult for the consumer to realize to what extent the product will fulfil its promise value under the desired usage condition. So, in these situations of uncertainties products from the reputed brand has a higher chance of acceptance compared to the product from unknown brands. Brands act as a promise that the product will fulfil what it claims to fulfil. Consumer trust branded product more compared to products from unknown companies. Vargo and Lusch (2004) stated that consumers assess the value of the product based on its serviceability. It is not only the service experience derive from the use of the product but also the interaction with the supplier. Similarly, emotional appeal acts as a medium to ensure at least the first purchase. So, under uncertain situations brand, consumer interaction, and emotional appeal plays a significant role to define credibility for the product.

At Philips:

Literatures suggests that emotional appeal and brand association has a strong influence on the acceptance of the concept by consumers. However, from case analysis, it is observed that it is difficult to generalise the above statement due to its dependency on contextual parameters. It is an important attribute as consumers are more emotional about some categories compared to others. Similarly, the target market influences this attribute. Additionally, the position of the key competitor also influences this attribute. If the competitor has a better reputation in the specific target market or category of product, it is difficult to advantage of the brand name.

Recommendation:

1. From case analysis, it is observed that influence of emotional appeal and brand association is highly context dependent. The key contextual parameters observed during interviews are category type, competitor position, target market, and consumer perception. So, in-depth study to understand these parameters should be performed to get further clarity.

6.3 Summary

Chapter 6 compares literature and practice. The final theoretical model is framed from the findings of the interview. The initial and final conceptual model are compared. Then, the researcher compared the similarities and differences in literature and practice. Table 32 shows the summary of chapter 6.

Key aspects of final conceptual model	Below is the summary of the findings of chapter 6. 1. Unmet consumer need, competitive price, and superior offer are the independent attributes 2. Involvement of consumer is most needed to define unmet consumer need. However, it is also essential to define superior offer and competitive price. 3. Involvement of multi-functional team is crucial to define all three independent attributes 4. Emotional appeal and brand influence contribute most to the competitive price. It also has influence on superior offer. 5. Additional non-financial cost governs identification of unmet consumer needs and superior offer 6. VP formalisation, leadership support, and other aspects are the hygiene attributes
Addition to academic literature	1. The final conceptual model helped to streamline the VPC process by identifying the key attributes of VP based on the case analysis result. 2. The final conceptual model identifies the role of key attributes which directly or indirectly influences the acceptance of the concept by consumers. 3. Final conceptual model shows the relationship among attributes e.g. the influence of emotional appeal and brand influence on competitive price. 4. Framework 1 is constructed from the final conceptual model. It shows the step by step approach to designing a sprint of the VP creation process to generate concepts which will have a higher chance of acceptance. It gave a structure to the VPC process. Furthermore, it shows the starting point of the VPC process as per different innovation type (disrupt, expand, and renew). 5. Framework 2 shows the tools and processes required to define the attributes of the VP and concept. This can work as a complete guideline to define each attribute of VPC process.
Additional difference between academia and Philips	<i>Difference 1: Influence of involvement of consumer</i> Academia supports involvement of consumers throughout the VPC process. However, Philips involves consumer during initial exploratory study and concept validation. Idea generation is done with the multi-functional team. <i>Difference 2: Influence of VP formalisation and leadership support</i> Academia supports formalisation of VP. However, employees feel formalisation may kill the creativity of VP creation process. So, core team should have the liberty to customise the VPC process as per requirement. Similarly, leadership support is more complex in real-life situation due to uncertainty in the process during the starting phase. <i>Difference 3: Influence of multiple stakeholders</i> Literatures emphasises on involvement of multiple stakeholders but in practice, multiple stakeholders are limited to the multi-functional team. Involvement of the external member is limited. Furthermore, sometimes it slows down the VP creation process due to difference of opinion among core team members. <i>Difference 4: Influence of emotional appeal and brand association</i> Emotional appeal and brand association is highly dependent on contextual parameters. It depends on product type, category, target market, and position of the competition. So, this is highly subjective.

Table 32: Summary of chapter 6

Chapter 7: Conclusion

7.1 Answer to research questions

The main aim of this research is to find the relationship between attributes of VP and acceptance of the concept by consumers. Furthermore, the research focuses on the practical significance of this relationship. Several frameworks are formulated to solve the identified knowledge gap in academics and practice. However, before answering the main research question, sub-research question will be answered as sub-research questions were defined to support the main research question.

Sub-research question 1: Which are the attributes of VP that influence acceptance of the concept by consumers?

As mentioned in chapter 3 and chapter 4, key attributes of VP are found out from the literature review, desk research at the selected organisation, and case study. Based on this initial conceptual model (Figure 8) is prepared for further research.

The attributes which influences the acceptance of the concept by consumers are as follows: unmet consumer needs, superior offer, competitive price, additional non-financial cost, involvement of consumers, involvement of stakeholders, emotional appeal and brand influence, VP formalisations, leadership support, and other aspects (social/environmental/ethical/sustainable). These attributes are classified into six main categories such as consumer, market, product, process, organisational, and miscellaneous attributes. Unmet consumer need is the consumer attribute. Superior offer is the product attribute and competitive price is the market attribute. Additional non-financial cost, involvement of consumers, involvement of multiple stakeholders comes under process attributes. Similarly, VP formalisation, leadership support, emotional appeal and brand influence comes under organisational attribute. The last attribute other aspects (social/environmental/ethical/sustainable) categorised as the miscellaneous attribute.

Sub-research question 2: What are the most critical attributes and their role?

Unmet consumer needs, superior offer, competitive price, additional non-financial cost, involvement of consumers, involvement of multiple stakeholders, emotional appeal and brand influence are the most critical attributes. These are attributes are identified from analysis of the interviews of VPC experts and 9 real-life cases as mentioned in Table 25.

Unmet consumer needs, superior offer, competitive price directly influences the acceptance of the concept by consumers. Hence, these are independent (predictor) variable. Acceptance of the concept by consumers is the dependent (criterion) variable. Additional non-financial cost, involvement of consumers, involvement of stakeholders, emotional appeal and brand influence affect the strength of relationship between independent and dependent variable. So, these can be classified as the moderators. Figure 10 and Table 28 shows these attributes and their role.

Additional non-financial cost mostly influences unmet consumer need and superior offer. Emotional appeal and brand influence have maximum influence on competitive price and

superior offer. Involvement of consumer and involvement of multi-functional team influences all three independent attributes of VP.

Sub-research question 3: How do these attributes change with the scope of innovation?

Scope of innovation plays a significant role on attributes of VP. For incremental innovation, managers should give high importance on competitive price, superior offer, and involvement of the multi-functional team. Emotional appeal and brand influence, and involvement of consumers have moderate influence and unmet consumer need has a low influence on the acceptance of the concept by consumers. For disrupt innovation, unmet consumer need, superior offer, involvement of consumers, and involvement of multi-functional team has high influence on acceptance of the concept by consumers whereas competitive price has low influence and additional cost has moderate influence. However, in some cases, the innovation can be new for a specific category whereas the organisation may have knowledge on different product or category. For this type, VPC pathway can be called as mixed type with properties of both disrupt and incremental innovation. For this type of projects unmet consumer need, superior offer, involvement of consumers, and involvement of multi-functional team have high influence on the acceptance of the concept by consumers. Competitive price, Emotional appeal, and brand influence have moderate influence on the acceptance of the concept by consumers. These answers are derived from Table 28 and Table 30.

Sub-research question 4: What is the practical significance of attributes of VP from manager point of view?

The practical challenges for the manager are the uncertainty of consumer, market, and product knowledge, unmanageable VPC process, a higher number of iterations, high investments in terms of cost, time, and effort due to lack of structure etc. Understanding the attributes of VP will help to help to tackle above challenges as follows:

- Understanding the role of each key attribute in VPC process can help managers to design and control VPC pathway. Furthermore, understanding of their interdependency also adds significantly to it. For example, emotional appeal and brand influence is a moderator and it has an influence on competitive price and superior offer. This information can help the manager to control all three attributes effective way.
- Understanding the influence of scope of innovation on attribute will help the manager to define separate VPC pathways for disrupt, incremental, and mixed type innovation.
- Furthermore, it will help the manager to structure the VPC sprint effectively. Manager can focus on important attributes for respective design thinking stages such as inspiration, ideation, and implementation. It can help to reduce the number of iterations, investments in terms of time, cost, and effort.
- Additionally, understanding of the tools and processes required to define each attribute of VP can help managers to structure and guide the VPC process efficiently. Section 4.3.2 and Figure 12 showed the relation between attributes of VP and acceptance of concept by consumer.

Main research question: What is the relationship between attributes of VP and acceptance of the concept by consumers?

From the analysis of sub research question 1, 2, 3, and 4 it is clear that attributes of VP influence the acceptance of concept significantly. However, all above question focuses only on the

attributes of VP with respect to acceptance of the concept by consumers. So, the main research question aims to directly discuss the relationship between attributes of VP and concept directly with the help of defined conceptual model and theoretical frameworks. Furthermore, it will describe how each conceptual model and theoretical model will help to bridge the knowledge gap identified in section 1.3.1, 1.3.2, and 1.3.3 of Chapter 1.

- *Key attributes of VP (as shown in sub research question 2) influences the concept significantly.* Final conceptual model showed the relationship between key attributes and the concept. Furthermore, it showed the influence of independent attributes and moderators on acceptance of the concept. The detail of role of each key attribute is discussed in sub research question 2. Lack of understanding of attributes of VP and their relationship is one of knowledge gap identified in Chapter 1. This conceptual framework provides a clear understanding of the key attributes of VP, their role, and relationship with the concept. It can help the manager to streamline the VPC process.
- *The acceptance of the concept can be governed efficiently if structure is available to control the attributes of VP step by step.* Theoretical framework 1 (Figure 11) showed step by step influence of each attribute on acceptance of the concept. It categorised the attributes based on problem-organisation fit, problem-solution fit, and product-market fit. Furthermore, it classified the key parameters concept with respect to each stage such as differentiator, need fulfilment, and price value. Lack of structure of VPC and concept generation process was identified as the knowledge gap in academics and practice. This framework can be a solution to above challenge. This understanding can help managers to provide a structure to the VPC and concept generation process.
- *Influence of each key attributes on acceptance of concept changes based on the scope of innovation.* Theoretical framework 1 showed the starting point of VPC process for disrupt innovation, incremental innovation, and mixed type innovation. Appendix 11, 12, 13 shows the framework of above three type innovation respectively. It also differentiates the attributes which have high and low importance in each innovation type. This helps managers define concepts which have a high chance of acceptance based on the innovation type.
- *Understanding of attributes of VP at each stage of the VPC sprint can help to define consumer-centric VP.* Theoretical framework 1 showed the attributes essential for each design thinking stages such as inspiration, ideation, and implementation for all three types of innovation. Refer to Figure 11, Appendix 11, 12, and 13 for details. This can help to design each sprint effectively. This provides structure to define each sprint of VPC to define the consumer-centric concept.
- *Understanding of tools and processes to define each attribute of VP and concept can help to define concepts which have a high chance of acceptance with consumers.* Theoretical framework 2 (Figure 12) shows the key tools and processes required to define each key attribute of VP and concept. This bridges the research gap on lack of understanding of tools and processes to find attributes of VP. This framework provides management tools and processes required to define VPC process and concepts.

Table 33 shows the summary and link between all research questions.

Sub-research question 1: Which are the attributes of VP that influence acceptance of the concept by consumers?	Sub-research question 2: What are the most critical attributes and their role?	Sub-research question 3: How do these attributes change with the scope of innovation?	Sub-research question 4: What is the practical significance of attributes of VP from manager point of view?
<i>Consumer attribute:</i> Unmet consumer need <i>Product attribute:</i> Superior offer <i>Market attribute:</i> Competitive price <i>Process attributes:</i> Additional non-financial cost, involvement of consumers, involvement of multiple stakeholders' <i>Organisational attribute:</i> VP formalisation, leadership support, emotional appeal and brand influence; <i>Miscellaneous attribute:</i> Other aspects (social/environmental/ethical/sustainable)	<i>Critical attributes:</i> Unmet consumer needs, superior offer, competitive price, additional non-financial cost, involvement of consumers, involvement of multiple stakeholders, emotional appeal and brand influence <i>Role of critical attributes:</i> <i>Independent variable:</i> Unmet consumer needs, superior offer, competitive price <i>Dependent variable:</i> Acceptance of the concept by consumers <i>Moderators:</i> Additional non-financial cost, involvement of consumers, involvement of stakeholders, emotional appeal and brand	<i>Incremental innovation:</i> <i>High influence:</i> Competitive price, superior offer, and involvement of the multi-functional team <i>Moderate influence:</i> Emotional appeal and brand influence, and involvement of consumers <i>Low influence:</i> Unmet consumer need <i>Disrupt innovation:</i> <i>High influence:</i> Unmet consumer need, superior offer, involvement of consumers, and involvement of multi-functional team <i>Moderate influence:</i> Additional cos <i>Low influence:</i> Competitive price <i>Mixed type innovation (Disrupt for specific product / category but not for the organisation):</i> <i>High influence:</i> Unmet consumer need, superior offer, involvement of consumers, and involvement of multi-functional team <i>Moderate influence:</i> Competitive price, Emotional appeal, and brand influence	<i>To design and control VPC pathway:</i> • Identification of key attribute • Their role • Interdependency of attributes with each other <i>Designing VPC pathway based on scope of innovation</i> • Incremental innovation • Disrupt innovation • Mixed type innovation <i>Structuring VPC sprint</i> • Inspiration • Ideation • Implementation <i>Defining tools and processes to identify attributes of VP effectively</i>
Main research question: What is the relationship between attributes of VP and acceptance of the concept by consumers?			
<i>Attributes of VP strongly influences acceptance of concept by consumers. This relationship can be established and structured by following ways:</i> • <i>Key attributes of VP influence the concept significantly (Refer Figure 10 for Final conceptual model) → Derived from sub research Q2</i> • <i>The acceptance of the concept can be governed efficiently if structure is available to control the attributes of VP step by step. (Refer 11 for theoretical framework 1) → Derived from sub research Q1, Q2, Q3</i> • <i>Influence of each key attributes on acceptance of concept changes based on the scope of innovation (Refer 11 for theoretical framework 1) → Derived from sub research Q3</i> • <i>Understanding of attributes of VP at each stage of the VPC sprint can help to define consumer-centric VP. (Refer 11 for theoretical framework 1) → Derived from sub research Q1, Q2, Q3, Q4</i> • <i>Understanding of tools and processes to define each attribute of VP and concept can help to define concepts which have a high chance of acceptance with consumers. (Refer 12 theoretical framework 2) → Derived from sub research Q1, Q2,</i>			

Table 33: Summary of answers of research questions

7.2 Generalization of findings

First, the model designed to show the relationship of VP and acceptance of the concept by consumers is applicable for both product-dominant logic and service-dominant logic environment. However, it is validated in an organisation which focused on product-dominant logic. These attributes are useful for service-dominant logic environment, but unique characteristics of service-dominant environment should be considered before implementing it. Second, the model is generic, and it can be applicable for both B2B and B2C market. However, these attributes are validated with the B2C market. It needs further study on influence of different environmental element before implementing it for B2B settings. Third, this model is designed for the supplier (product manufacturer) which keeps the consumers perspective first. It means the VPC process is designed considering the need of the consumer and it is assumed that the supplier is also following this logic to develop product. However, it is possible to define the value proposition based on the supplier's perspective, but it may not provide the expected value to its consumers.

For managers

- The proposed model identifies the key attributes of VP which can provide direction to develop the desired concept for consumers. This can help to manage the uncertainty and dynamic nature of FFEI. The proposed attributes are generic for product-dominant and service-dominant industries focusing on the B2C or B2B market. However, it should be validated with cases from service-dominant organisation and B2B market. It may need some changes for environmental settings. However, this can be a guideline in an uncertain situation as it identifies the key attributes of VP, role of the attributes, and their interdependency as shown in Figure 8.
- The proposed conceptual framework can help to govern the VPC process based on the newness of the innovation. So, the manager can more focus on the key attributes essential for the project based on the judgment whether it provides incremental, disruptive, or mixed-type change. This can help the managers to define tailor-made VPC pathway for each type of projects based on their innovation as shown in Figure 11. This is applicable for service-dominant and product-dominant organisations focusing on B2B and B2C market.
- Literature framework 1 has defined key attributes of VP at each stage of VPC process (inspiration, ideation, and implementation) and its relationship with concept for all three types of innovation as shown in Figure 11. This will help managers to define each sprint based on key attributes. So, it will help to reduce timeline and number of iterations. It further classified the parameters of concept with respect to each stage such as differentiator (uniqueness), need fulfilment, and price value. These parameters are linked to problem-organisation fit, problem-solution fit, and product-market fit. This will help managers to reduce the number of cases with low concept test score. This is applicable for service-dominant and product-dominant organisations focusing on B2B and B2C market. However, service-oriented organisation and B2B market need further validation before implementing the framework.
- Theoretical framework 2 (Figure 12) shows the key tools and processes required to define each key attribute of VP and concept. This bridges the research gap on lack of understanding of tools and processes to find attributes of VP. This framework provides management tools and processes required to define VPC process and concepts. It can provide formalisation to VPC process to tackle the dynamic and uncertain nature of the product, market, and consumer knowledge.

- The role of higher management is very significant in defining the scope of the project. Higher management should have a clear strategic vision and commercial objective at the start of the project. Change of scope and objective at the middle of the project not only increase the time and budget requirement but also demotivate employees. Hence, manager should have clarity on the above subjects as much as possible from the beginning of the project.
- Well established VP formalisation and best practices increase the effectiveness of VPC process. However, it kills the creativity of employees if it is too rigid. Additionally, projects have their unique requirements. So, employees should have the liberty to customise tools and processes based on their requirements. Hence, the manager should keep the right balance of formalisation so that it can guide employees if they are stuck and give the freedom to customise the tools and processes based on their requirement.

For scientific literatures

- As per our knowledge, academic literatures are not available which shows the relationship of attributes of VP and acceptance of the concept by consumers. So, this thesis provides a conceptual model to show attributes of VP and its influence on the acceptance of the concept by consumers as shown in Figure 8. It further shows the role of each attribute of VP. Role of the attributes means if it is an independent variable, dependent variable, or moderator. It also classifies the relationship between each attribute.
- In section 1.3.2 of chapter 1, lack of structure of VPC process is identified as one of the main research gaps to define the concept with a high chance of acceptance by consumers in the existing literature. Theoretical framework 1 (Figure 11) shows step by step guideline to manage attributes of VP to define the concept. It classified attributes of VP based on problem-organisation fit, problem-solution fit, and product-market fit. Theoretical framework 1 also categorised the attributes of VP based on the stages of the sprint. It showed the attributes of VP which are essential during inspiration, ideation, and implementation stage to define a concept which has a high chance of acceptance by consumers. This further enhances the structure of VPC process by guiding each stage of the sprint. This is new addition to existing literature.
- Lack of understanding of the influence of scope of the innovation on attributes of VP was another key research gap found from literature review. Theoretical framework 1 shows the starting point of disruptive, incremental, and mixed-type innovation. It also identified the attributes which have a low and high influence on acceptance of the concept by consumers for each innovation type. This literature framework can be used to define VPC pathways based on scope of innovation.
- Lack of tools and processes to define attributes of VP and concept is another key research gap found from literature review. This leads to a higher number of iterations to define attributes of VP. So, theoretical framework 2 (Figure 12) is defined. It shows the tools and processes required to define the attributes of the VP and which will lead to high concept test score.

7.3 Reflection

In this section the author of the thesis reflects on research process, research choices, and research outcome. Research process consists of reflection on validity, reliability, and triangulation. Research choices consist of framing conceptual model, pre-discussion for

selection of cases, semi-structured interviews, data analysis methods, and post result analysis discussion. Similarly, the last part of reflection section is research outcome which consists of finding tools, processes of VP and concept test and finding attributes.

Research objective

- The research objective was to prepare the theoretical framework showing the relationship between attributes of VP and acceptance of the concept by the consumer that can act as a guideline for managers to design a sprint of VPC process based on the scope of innovation. Final conceptual model (Figure 8), theoretical framework 1 (Figure 11), theoretical framework 2 (Figure 12) provides detail step by step method to design VPC process to generate concept which has a high chance of acceptance by the consumer. These theoretical frameworks are derived from the literature review, case study, and interviews. These theoretical frameworks meet the expectation set during setting the research objectives. However, it took several iterations to reach the current theoretical framework with several rounds' discussions with different VPC experts. This could have avoided if the research objective and research direction could have aligned properly.

Research process

- *Validity:* Validity checks if the research instruments truly measure the research objective. The research questions are checked with VPC experts of Philips. So, it would have interesting to get data on research questions from external experts in VPC process and concept test outside Philips. It could have been better if some interviews would have been conducted with external candidate selected through LinkedIn. All the cases selected with follows case selection criteria as defined in section 2.2 has high concept test score given by consumers. These cases are selected for semi-structured interview. However, the researcher could not find cases with low concept test score which meets the case selection criteria as mentioned in section 2.2. This also affects the validity of the research. In section 5.4, three cases are discussed which has low concept test score, but these cases did not follow the VPC pathway in structured way.
- *Reliability:* The repeatability of results checked with different products and categories under Personal Health of Philips. However, it will be interesting to verify findings with different types of product-dominant organisations (e.g. SMEs, start-ups, large corporates). The scope of research can further enhance to B2B and service orientated organisation. Each of these parameters can be individual research topics.
- *Triangulation:* The major sources of data are academic literatures, Philips case details, corporate slides, and VPC training kits. So, overall the research sources are limited to academia and Philips internal source. Due to limited time external sources on practical implementation of VP are not analysed (Patents, corporate release of innovative companies etc.).

Research choices

- *Framing conceptual model:* First, the attributes are identified from literature and it is verified with the Philips database. No new attributes identified from Philips database. So, the initial conceptual model from the literature review was selected for the interviews. However, the researcher had limited access to live project folders at Philips

due to privacy concern and the projects are from different categories. So, it is not easy to get access to all projects details to do in-depth study.

- *Pre-discussion for selection of cases:* Total 36 pre-discussions are conducted to finalise 9 cases for final interviews. This was an exhaustive and time-consuming process. However, it was essential as there were very few cases which fulfil criteria. Additionally, there was inconsistency in answers of the participants for the same case. So, it took longer to find and finalise cases. The number of interviews could have been reduced to finalise the cases.
- *Semi-structured interview:* As per the knowledge of the researcher, the semi-structured interview is the most suitable interview method considering the nature of the research. It provided an opportunity to ask open questions as well as the structured questions. The first and last parts of the questionnaire are open questions. The first two questions are open questions about the project and the VPC process. So, it helped to understand the important steps followed for VP, idea, and concepts generation, selection and validations. This helps to get information without biasing the interviewees. Rest of the questions are structured questions. This part of the questionnaire mainly focused to get the answers to the research questions.
- *Data analysis methods:* It is difficult to generalise the result in qualitative research. However, the nature of this research is exploratory study. Hence, the qualitative study was useful. So, if this research will continue further it is better to perform quantitative research. This will provide an opportunity to give weight to each attribute.
- *Post result analysis discussion:* This discussion lack structure due to lack of time. Additionally, it was difficult to get the availability of each participant due to ongoing summer holidays. However, a focus group instead of individual discussion could have given a better result as this would have allowed the participant to discuss each other's feedback.

Research outcomes

- *Finding tools, processes of VP and concept test:* Researcher did not have access to all project folders of the cases. So, it was difficult to do a background study on tools and processes used for the cases. However, in most of the cases, participants shared all necessary documents to refer. There is some inconsistency observed among participants on the tools and processes used for the same cases. However, after the interview participants shared relevant information related to cases to clarify those differences.
- *Finding attributes:* Interviewees are asked to rank each attribute to find key attributes. However, the ranking varies based on the perception of individuals. There is little inconsistency observed concerning the ranking of both respondents for the same case but for each project category there were distinctive majority votes were given to key attributes. However, quantitative research is recommended further to increase the generalisability of the result.

7.4 Limitation

Related to case selection

Initially, it was planned to study cases with both high and low concept test score, but the selected organisation did not have any cases which fulfilled the defined case selection criteria

with a low concept test score. So, all the cases analysed in this paper has a high concept test score. However, it would have given a complete overview of the influence of attributes of VP on the acceptance of the concept by consumers if cases with the low concept test score could have been studied. Furthermore, the conceptual model could have been improved from the lesson learnt and insights of rework of the failed concepts.

Related to selection of organisation

At Philips, VP formalisation means best practices (tools, processes, and rituals). It was difficult to study the organisation structure due to uniformity across all Philips category. Similarly, at Philips, involvement of multiple stakeholder is limited to involvement of multi-functional team due to lack of involvement of external stakeholders.

Related to validation of conceptual model

As discussed in section 7.2, the attributes identified from the literature is applicable for both service-dominant and product-dominant organisation which focuses on B2B and B2C organisation but the cases used to validate the theoretical model are focused on product-dominant and B2C organisation. Researcher of this paper argues that the final conceptual model can act as the basic guideline to define VPC pathway for the service-dominant organisation. However, the unique characteristics of service oriented and B2B organisations should be studied further. The attributes can be tailor-made to match the organisation characteristics. Additionally, all the cases are selected from a single organisation. So, the theoretical model needs further validations with other organisations in the product-dominant sector.

Related to research methods

It is further debatable that if it is valid to draw wider inference from single case-study. Researchers argue on the limitations of qualitative research for generalisations whether if it can be seen to have a reality beyond the contextual parameters from which it is derived (Flick, Kardoff, & Steinke, 2004). Hence, it is recommended to study more cases from different product-dominant organisation to generalise the conceptual model. The quantitative study can be one method to further increase the validity and reliability of the content.

7.5 Future research

Influence of contextual parameters on acceptance of the concept by consumers

During the interviews, it is noticed that there are several contextual parameters which influence individual identified attributes. So, this can be challenging research to find the key contextual parameters which govern these attributes. It will provide more control to the managers to manage the fuzzy front-end of the innovation.

Identification of parameters which determines acceptance of the concept by consumers

Further research is required to understand the parameters that influences the acceptance of the concept by consumers. In this thesis three parameters need fulfilment, differentiator (uniqueness), and price value is discussed. However, further study is essential to understand these parameters and its relationship with attributes of VP.

Influence of acceptance of the concept by consumers on success of the product

Innovation management starts from idea until market launch. So, VP leads to concept development. Then, the concept is developed into the product and the product will be launched in the market. So, it is essential to study how does the acceptance of the concept by consumers influences the success of the product after launch. However, there are several external attributes which influence the success of the product e.g. technical feasibility to translate the concept into the desired product, market share of the product, expenditure in communication and promotion, positioning of retailers, business model etc. So, this can be interesting to know which are the attributes that influence the success of the product in the market. Moreover, it is also essential to define the success of the product. For example, the criteria to define the success of the product e.g. sales volume, profit margin, innovativeness, market share etc. So, this can be an interesting research to understand the key attributes which governs the acceptance of the concept by consumers into the success of the product.

Influence of organisational characteristics on acceptance of the concept by consumers

The organisation selected for this study is a well-established and process-driven innovation giant. This organisation has developed its best practices over its more than a hundred years of innovation experience. However, for start-ups and new ventures may not have predefined VPC tools, processes, and experienced multi-functional teams. So, the influence of VP formalisation i.e. the organisation structure and best practice on the acceptance of the concept by consumers should be studied further concerning start-ups.

7.6 Relevance to Management of Technology

The objective of the Management of Technology program is to prepare professionals who are familiar with both management and technological practices. It helps engineers to be the future technology managers. This research covers multi-disciplinary dimensions e.g. technical, organisational, and management. The technical aspect of this research is product development i.e. the fuzzy front-end of innovation. Value proposition creation, concept development, and validation process come under innovation management. Furthermore, the involvement of the diverse multi-functional team, tools, and processes used to generate, develop, and validate ideas and concepts comes under organisational aspects of innovation management. Additionally, identifying key attributes of VP equip technology managers a strategic tool to reduce the number of iteration and to design tailor-made VPC pathways for projects based on its scope of innovation. This thesis proves that high-tech industries need technology managers to solve challenging solutions which involve technical as well as managerial skills.

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Appendix 1: Cases list for pre-discussion

Case No.	Philips category	No. of Interviews	VPC Pathway	Concept Test Result	Project status
1	Home care	2	Renew	High	Selected
2	Personal care	2	Renew	High	Selected
3	Personal care	2	Renew	High	Selected
4	Home care	2	Renew	High	Selected
5	Coffee	2	Expand	High	Selected
6	Garment care	2	Expand	High	Selected
7	Garment care	2	Expand	High	Selected
8	Garment care	2	Disrupt	High	Selected
9	Mother & childcare	2	Disrupt	High	Selected
10	Garment care	Only pre-discussion	Expand	Concept result was not available	Rejected (Concept test was not performed)
11	Personal care	Only pre-discussion	Renew	Concept result was not available	Rejected (Concept test was not performed)
12	Mother & childcare	Only pre-discussion	Expand	High	Rejected (VPC pathway was not followed)

Appendix 2: Questionnaire for semi-structured interview

Sl No.	Question	Type	Characteristics / Attribute
1	How did you carry forward VPC?	Open	Generic
2	How did you conduct concept test?	Open	Generic
3	What is the project category?	Structured	Generic
4	How did you capture consumers' pain and delighter?	Structured	Unmet consumer need
5	How did you ensure that your product is offering superior value?	Structured	Superior offer
6	How did you use consumers in VPC and validation?	Structured	Involvement of consumer
7	How does the involvement of multifunctional team influence VPC?	Structured	Involvement of multi-functional team
8	How did you collect information about competitor product and alternatives?	Structured	Competitive price
9	What is the influence of Philips tools, practices, and leadership support on VPC?	Structured	VP formalisation Leadership support
10	Is there any influence of brand association and emotional appeal on acceptance of the concept by consumers?	Structured	Emotional appeal and brand influence
11	How did you validate your idea and concept?	Open	Generic
	What was the concept test score?	Structured	Concept
	What are the tools you used for this project?	Open	Generic
12	Do you want to mention any other key parameters related to VPC and Concept test, which has not been discussed yet?	Open	Other aspect

In this section interviewees are asked to rank the attributes of VP with reference to the project. Attribute which is of top priority is ranked 1. Then, the rest will be ranked accordingly.

Attributes of VP	Ranking of each attribute
Unmet consumer need	
Competitive price	
Superior offer	
Involvement of consumers	
Involvement of multifunctional team	
VPC practices	
Leadership support	
Emotional and symbolic association with the brand and product	
Incorporation of - Social - Environmental - Ethical - Sustainable aspects	
Additional costs: - Time - Risk - Search - Psychic - Effort	

In this section interviewees are asked to tick the tools and processes used for the respective cases. This will help to undersand the key attributes of VP for the case.

Tools	Used	Not used
Project Management Tools		
Project definition tool		
Path finder tool		
Team canvas		
Kick off canvas		
Assumption canvas		
Assumption tool		
Customer Perspective Tools		
Source business map		
Target group map		
Experience flow map		
Tension plot & workshop guide		
Offer Perspective Tools		
Ideal proposition model		
Framing canvas		
Envisioned experience flow		
Claim storm workshop		
Business Perspective Tools		
VPC Business canvas		
Business modelling workshop		

Size of the opportunity template		
Risk register tool		

In this section interviewees are asked to tick the validation tools and processes used for the respective cases. This will help to undersand the key attributes of VP for the case.

Validations	Time spent	Involvement of cross-functional team & consumers
Inspiration and re-sight		
Landscape Assessment		
Business Review		
Market Analysis		
Competitor analysis & trends		
Bench Marking		
Ratings and reviews		
Search / social listening		
Trend analysis		
Experience research		
Usage mapping		
CDJ mapping		
Idea exploration		
Tension and insight identification		
Ideation session		
Co-creation workshop		
Idea evaluation		
Idea screener		
Digital experiments		
Concept labs		

Early demonstrator testing		
Concept Validation		
Concept test		

Appendix 3: Confidentiality agreement

Dear Participant,

It is my pleasure to invite you for the research study titled “Role of value proposition on acceptance of the concept by consumers”. This study is conducted by Shibani Mohanta from Delft University of Technology.

The purpose of the research is to understand the Value Proposition Process (VPC) followed at Philips and its influence on high or low concept test score. This score can be Market Success Score (MSS) or Bases Probability of Success (BPS). This interview will take approximately one hour. These data will be used to define the theoretical framework for the thesis work.

Your participation in this study is voluntary and you can withdraw your participation anytime you want. You are free to not to answer any question if you choose to do so.

I believe that there are no known risks involved in this research study and to the best of my ability your answers will be kept confidential. To ensure this, your name and details will remain anonymous. Audio files will be deleted after analyzing the results. In addition, the case description will be kept generic or same as it is conveyed in different communication channels wherever it is needed. Before publishing anything in final report, documents related to your project will be verified with you.

The questions for the interview are listed in the next page for your reference.

Thanks for your participation!

With Regards,
Shibani Mohanta

Signature of the interviewee:

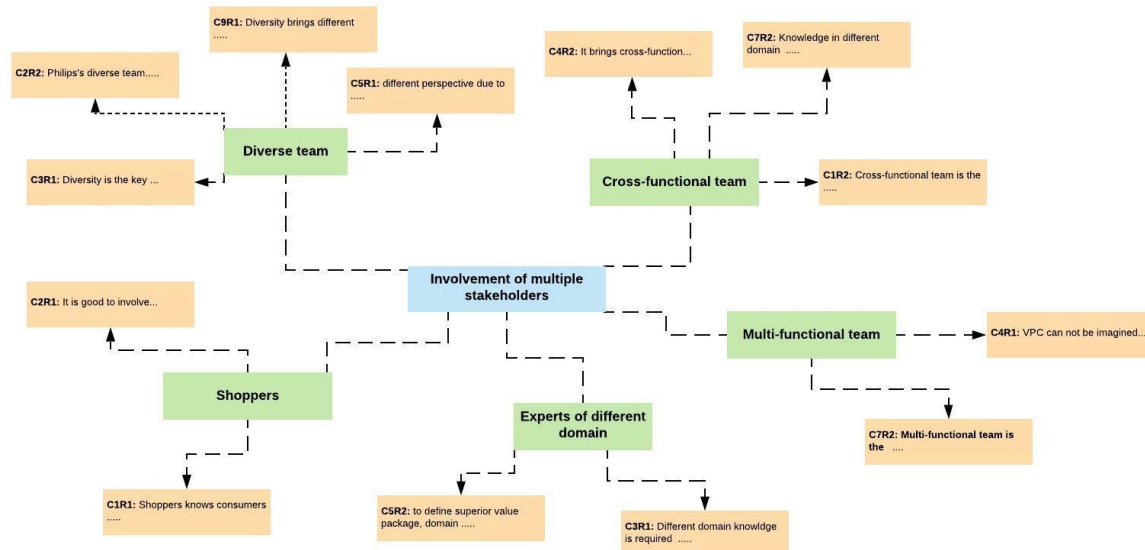
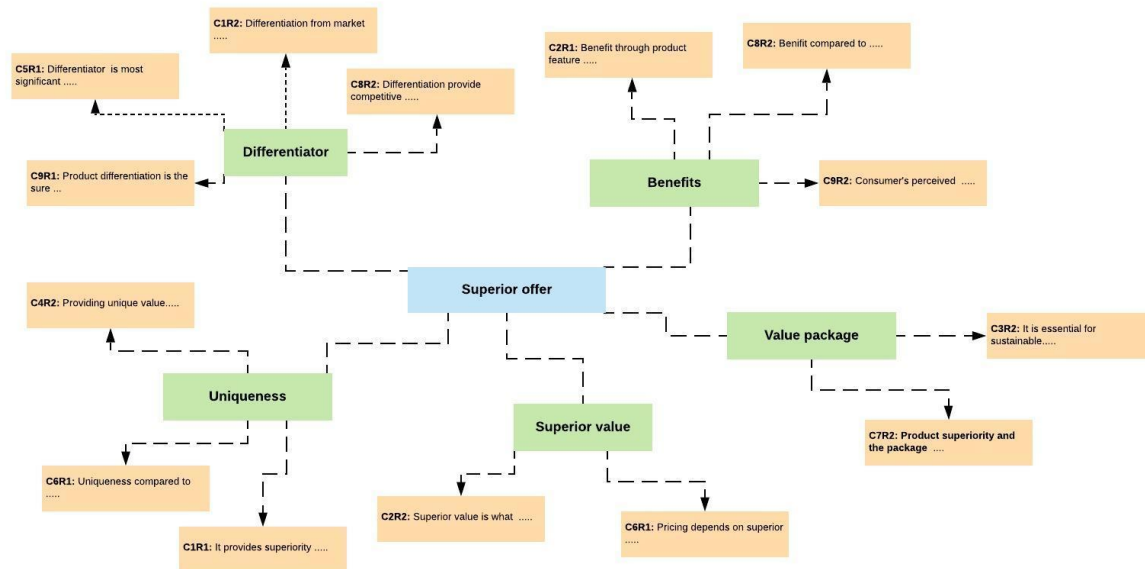
Date & Place:

Signature of the interviewer:

Date & Place:

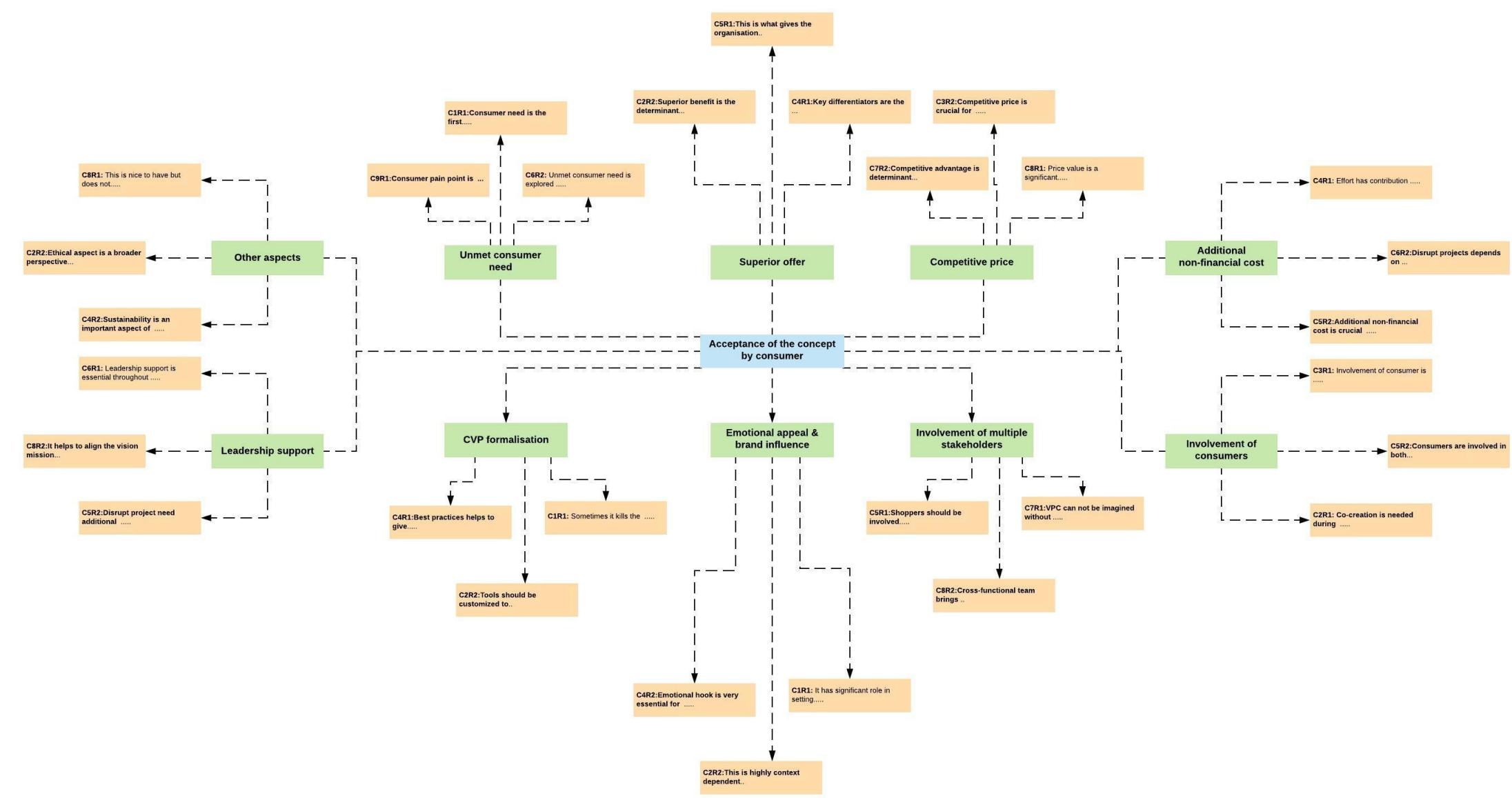
Appendix 4: Coding and coding groups

Here the coding and coding group of superior offer and involvement of multiple stakeholders is shown. These are the examples to show the methods coding used in this thesis



Appendix 5: Thematic network

In this section the coding groups are linked to acceptance of concept by consumers.



Appendix 6: Definitions of value propositions

Authors	Definition
Kambil et al. (1996, p. 5)	“Value propositions define how items of value (product and service features as well as complementary services) are packaged and offered to fulfill customer needs.”
A. Payne et al. (2017, p. 6)	“A value proposition (VP) is a strategic tool facilitating communication of an organization’s ability to share resources and offer a superior value package to targeted customers.”
Webster (1994a, p. 25)	“The verbal statement that matches up the organisation’s distinctive competencies with the needs and preferences of a carefully defined set of potential customers. It’s a communication device that links the people in an organization with its customers, concentrating employee efforts and customer expectations on things that the company does best in a system for delivering superior value. The value proposition creates a shared understanding needed to form a long-term relationship that meets the goals of both the company and its customers”
McKinsey (2000, p.53)	“A clear, simple statement of the benefits, both tangible and intangible, that the company will provide, along with the approximate price it will charge each customer”
Anderson et al. (2006, p. 95)	“Value propositions are “All benefits,” listing “all benefits a customer receives from a market offering,” “Favorable points of difference,” focusing on “all favorable points of difference a market offering has relative to the next best alternative,” and “Resonating Focus” meaning that the focus should be on “the one or two points of difference . . . whose improvement will deliver the greatest value to the customer for the foreseeable future.”
Rintamaki et al. (2007, p. 3)	“A strategic management decision on what the company believes its customers value the most and what it is able to deliver that gives it competitive advantage.”
Skålén et al. (2015, p. 8)	“Value propositions are promises of value creation that build upon configuration of resources and practices.”

Appendix 7: Evolution of Value proposition (VP)

Concepts	Definition
Origin of VP concept: Value delivery system	Bower and Garda (1986) proposed “value delivery system” which focuses on choosing, providing and communicating the value proposition.
	Lanning and Michaels (1988) further developed value delivery system and emphasised on the benefit and cost of the product.
	Lanning and Phillips (1992) focused on the importance of understanding the key desirable benefits of targeted consumers.
Value disciplines	Treacy & Wiersema (1995b) argued that the organisation should focus on any of three value discipline: product leadership; operational excellence; and customer intimacy.
Value map	Kambil et al. (1996) introduced value map which define the relative position of different companies in an industry along cost and performance axis. The value frontier defines the maximum performance feasible at any moment of time for a given cost.
Development of original VP concept	Lanning (1998) re-evaluated his previous work and recommended that organisation should define its value dimension by continuous observing its customer throughout the consumption cycle.
VP and customer experience	Smith and Wheeler (2002) further worked on Lanning’s concept and stated that to deliver superior value, knowledge on consumer experience is the most crucial attribute.
Forms of VP	Anderson et al. (2006) highlighted three key aspects of VP development in business scenarios: stakeholders’ benefits, company’s points of difference (comparative benefit with the key competitor), and resonating focus (key benefit).
VP and customer value	Rintamaki et al. (2007) pointed out four value dimensions of VP: economic, functional, emotional, and symbolic. This will provide competitive advantage to organisation by identifying gap between consumer and supplier perception on offered value and experience.
Reciprocal VP	Ballantyne (2003) focused on the two-way reciprocal nature of the VP which involves both customer and supplier (enterprise).

Co-created VP	Ballantyne (2003) is the first author who focused on co-creation of value. Later, Lusch and Vargo (2006) identified co-creation as the key element of the service-dominant logic.
Multiple stakeholder engagement	Ballantyne et al., (2011), Lanning, (2003), Mish & Scammon, (2010) encouraged active involvement of wide range of actors and stakeholders in many-to-many interactions to deliver winning value proposition.
The Social, Environmental and Ethical Issues	Emerson (2003) focuses on incorporation of economic, social, and environmental issues. Müller (2012) emphasises on sustainability aspect.
Value proposition and innovation	Lindic and Silva (2011) defined five key elements of VP which can drive innovation: performance, ease-of-use, reliability, flexibility, and affectivity. Skálén et al. (2015) analysed eight companies to understand VP in service-domain.

Appendix 8: Description of VP tools and processes

In this section the VP tools and processes are described.

VP Tools and Processes	Description
Define source of business	Identifying source of business i.e. consumers whose behaviour can be changed to buy the new proposition
Define target group	Identifying target group, stakeholders, and influencers
Identify alternatives	Identifying competitors' product and available alternatives
Source experience flow	Map what potential consumers are doing, thinking, and feeling about the identified need
Tension workshop	Identifying superior opportunity vs. main alternatives e.g. high performance vs. low cost Identify conversion barriers Not fitting with company's portfolio, vision, technically not feasible, lack of experience within company, new market (lack of market knowledge) etc. - Refine and priorities tension - Identifying most superior opportunity - Articulate the actionable insight
Ideal Proposition Model Session	Translate consumer needs into product attributes. Further, develop superior opportunity. Identify boundaries Gather inspiration
Ideation session	Multiple ideation rounds including customer feedback. Aim of the ideation: - Turning ideas into offer - Identify reasons to believe - Listing down benefits
Envisioned experience flow	Aim of the envisioned experience flow: - Create experience demonstrator(s) - Gain feedback from customers - Assess and prioritise offers
Claim storm	Translate superiority into claim
VPC business canvas	Aim of the VPC business canvas: - Capture the full offer in market context - Understand the influences of partnerships, revenue model, resources, channels etc. - Identify strategic enablers
Size of opportunity	Define and underpin the total addressable market and target market. - Identify the target market based on target customers (sources of business)

	- Use of multiple sources to verify definition and statistics - Challenge and fine-tune the definition and statistics
Business modelling workshop	- Inspiration and ideation on business model - Analyse and identify the most suitable business model
Risk assessment	Identifying risks related to business e.g. 1. Technical - Unable to solve basic technological issues - Unable to scale-up technology 2. Value proposition - Addressing wrong or unimportant needs - Weak Intellectual property (IP) position 3. Go-To-Market - Unable to secure specific sales channels - Missing sales windows 4. Competitive - Competitor launching me-too quickly - Risk of competition having a strong proposition in the market Identifying risks related to compliances e.g. 5. Quality & Regulations - The risk of being non-compliant to FDA regulations - The risk of not adhering to sustainability practices 6. Legal - The risk of violating data protection laws 7. Product & service security - The risk of software being open to malign actions

Appendix 9: Description of validation tools and processes

In this section the validation tools and processes are described.

Validations	Description
Business Review	Review current business performance
Market Analysis	Opportunity mapping by looking at market sizes, market share, product / benefit / price segments, competitors, etc.
Bench Marking	Assess benefits and features of competitor products, identifying gaps vs. your portfolio and vs. the market needs
Ratings and reviews	Key drivers and detractors of products in the market
Search / social listening	Check what consumers are saying about you and your competitors
Trend analysis	Review current trends in the market (Trend reports, Semiotics, Social listening)
Usage mapping	Identify insights on pain points, moments of delights, unmet needs.
CDJ (consumer decision journey) mapping	Identify insights, based in pain points, moments of delight, compensating behavior.
Tension and insight identification	Map key consumer tensions based on unmet needs to identify actionable insights
Ideation session	Bring multi-functional team (Marketing, MI, PRC, Design, I&D, etc.) together to brainstorm and create initial ideas
Co-creation workshop	Invite a group of stakeholders (multi-functional team, markets, consumers, KOLs, agencies) to build-on, co-create, and fine-tune initial ideas in order to strengthen and consolidate into lead ideas
Idea screener	Quick online survey or via online community to test different directions, prioritize based on current products / competitor benchmarks or database
Digital experiments	“Test...iterate...test...” Run small experiments on digital platforms to continuously testing and learning
Concept labs	Evaluate concepts in sessions with consumers, KOLs, stakeholders to identify key concept drivers / detractors and iterate based on feedback
Early demonstrator testing	To get a realistic view on consumer relevance, interest, usability in order to optimize proposition

Concept test

- Test your lead idea(s) vs current/competitive benchmark or agency database on key concept KPIs to ensure you have a winning proposition
- Identify key concept drivers to focus on for communication
- Measure purchase KPIs as potential input for size of prize

Appendix 10: Details of additional respondent

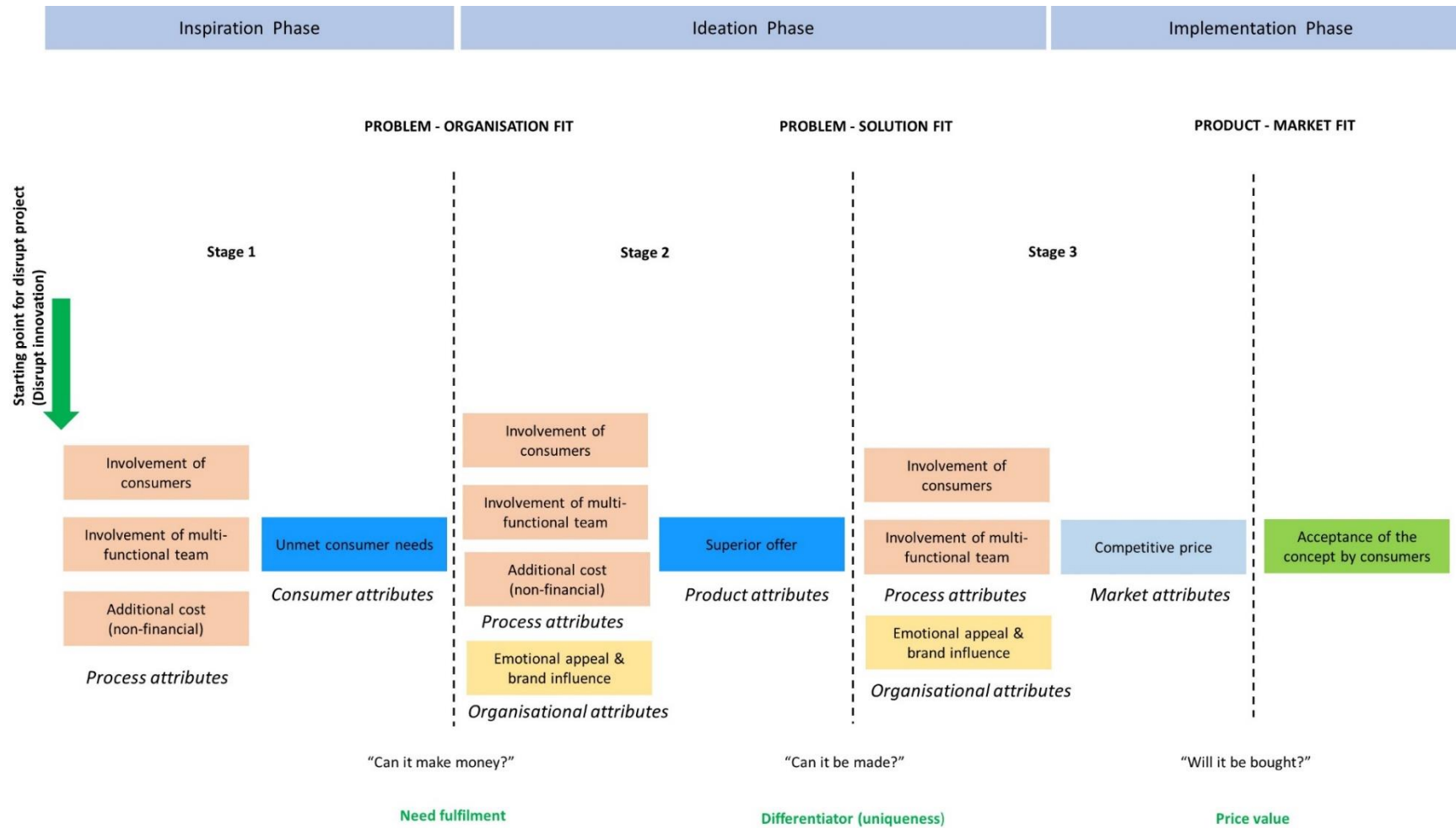
Below is the list of additional respondents who were interviewed after post-result analysis. These respondents were not part of initial interview.

Respondent number	Code	Expertise
Additional Respondent 1	AR1	Product manager
Additional Respondent 2	AR2	Product Research Center (Consumer research)
Additional Respondent 3	AR3	Market Intelligence
Additional Respondent 4	AR4	Market Intelligence
Additional Respondent 5	AR5	Product manager

Following questions are asked to the interviewees.

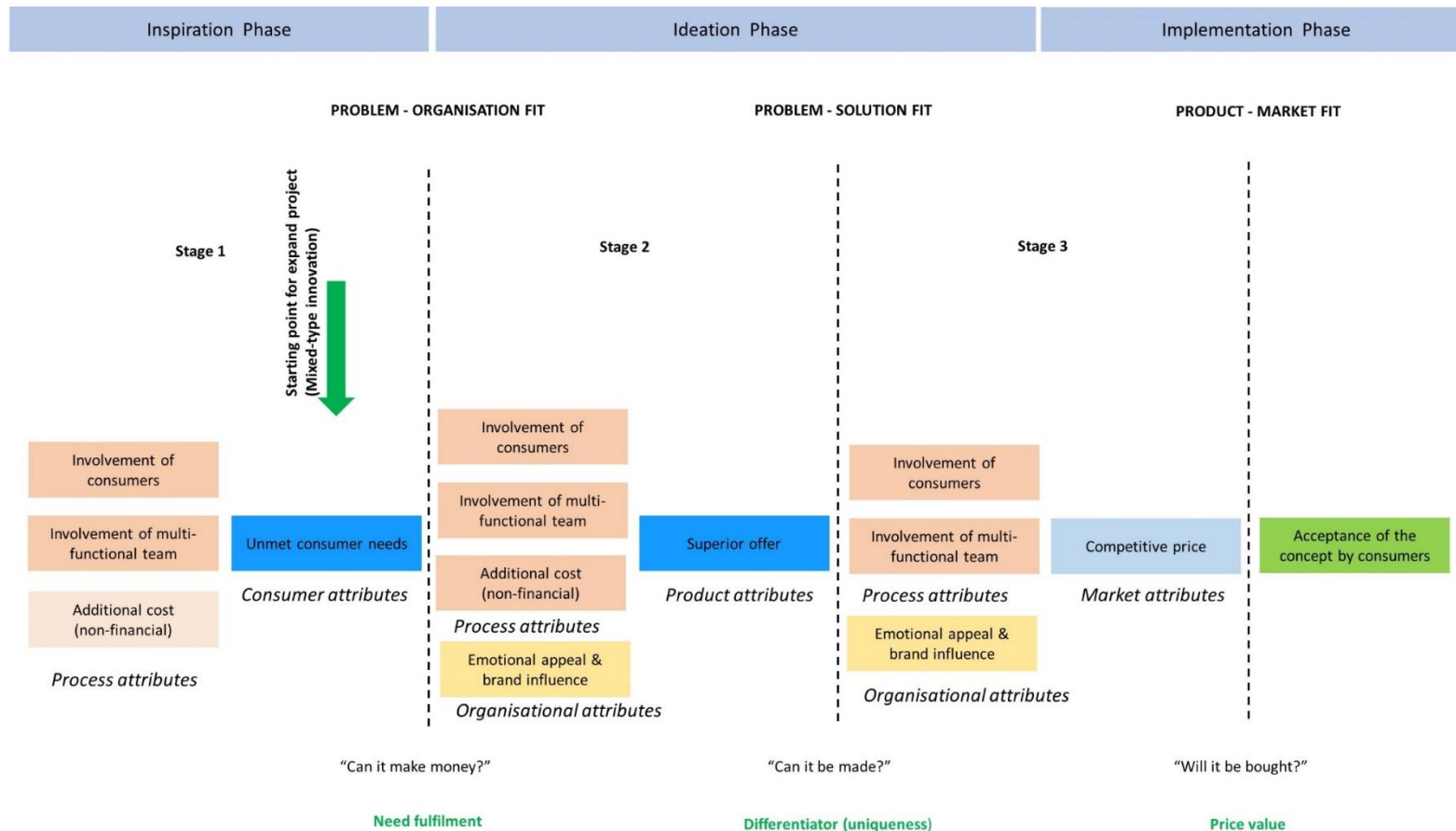
1. Which are the independent attributes and moderators out of all identified attributes?
2. Which are the key independent attributes that most influenced by these moderators?
3. What are the key attributes for renew project out of all identified attributes?
4. What are the key attributes for expand project out of all identified attributes?
5. What are the key attributes for disrupt project out of all identified attributes?

Appendix 11: Sprint for project with disrupt innovation



Appendix 11: Sprint for project with mixed-type innovation

Innovation for this thesis is considered as newness to the organisation. Projects which involves disrupt innovation are known as disrupt project. Projects which involves incremental innovation are known as renew project. Mixed type is the innovation for specific product type or category, but innovation knowledge is available for developing other products. However, in most cases, it is required to innovate features specific to product. So, it shares the characteristics of disrupt as well as incremental innovation. It is known as expand project in Philips.



Appendix 12: Sprint for project with incremental innovation

