Effective product requirement identification and business model developement for emerging markets

A guidebook for Danish small- & medium-sized companies

Small Companies on Big Markets

Over several years, Denmark has focused on entrepreneurship and the creation of new businesses. It has been a successful strategy, and today, many new companies are being established every year. However, it is not enough only to establish new business: it is also crucial that some of these young enterprises must develop themselves further, grow bigger and export their products.

In 2013, The Danish Industry Foundation made a special call to focus on transforming vulnerable new entrepreneurs into strong growing companies. Seven new projects were launched in the wake of the call and one of them was the GODSEM-project.

It is not an easy task to make a small business ready for high growth – and, subsequently, to execute a growth strategy with global reach and goals. However, as a Danish company that wants to grow big, going abroad might be the only solution. The Danish market is too small to generate a stable turnover and, especially if you provide a niche product, it may be both necessary and valuable to look for growth on attractive markets far from Denmark.

With the GODSEM-project, The Danish Industry Foundation and the Technical University of Denmark grouped together with 80 Danish companies to identify what it takes for new Danish ventures and SMEs to go international. Based on this new knowledge, the project has developed tools and frameworks that can help other Danish companies to trim their strategy, products and processes to increase sales in emerging markets far from home.

Many Danish companies successfully participated in the GODSEM-project and based on their experience and the activities and studies conducted as part of the project, this guidebook is now published so that more companies in the future can hopefully achieve increased sales far from Denmark.

Mads Lebech
CEO, The Danish Industry Foundation

Global Opportunities for Danish SMEs in Emerging Markets:

Strategies and Methods for Adaptive Product Development

Many newly established start-ups and small and medium-sized enterprises (SMEs) in Denmark need to create and capture value within a global market through innovative business models to sustain competitive advantages. Often, these start-ups and SMEs have unique technologies and/or products, for which the Danish domestic market alone is not large enough to sustain a successful business model. Thus, the growth potential relies on successful entry into the global market, especially into emerging markets. Danish start-ups and SMEs are increasingly interested in and dependent on emerging markets not only because of their sheer size but also the tremendous number of opportunities to do business in innovative ways. However, a growth strategy based on innovation opportunities in emerging markets implies a high level of uncertainty and risks. Winning in a complex and significant market, such as China or Brazil, requires a high level of learning and adaptation capabilities.

Great challenges that Danish start-ups and SMEs are facing when entering emerging markets urgently call for new management and design frameworks, tools and methods to better facilitate their strategic adaptation and operational agility. This book provides its readers with relevant knowledge in this respect primarily based on our research during 2014-2016 within the GODSEM project. The tools, frameworks, and managerial insights derived from this project were specifically designed for SMEs but they are also generically applicable to companies of larger sizes across various industries.

This book offers a refreshing take on the need for actionable tools for SMEs to use when considering their market entry in emerging markets by clarifying:

1. **Key challenges in emerging markets**
2. **A toolkit for product requirement identification in emerging markets**
3. **A blueprint and toolkit for business model development in emerging markets**

With this book, we hope the knowledge gained from this project can be disseminated to a larger group of Danish start-ups and SMEs, which have future plans to engage in emerging markets, to effectively accelerating their growth from the very onset.

Jason Li-Ying
Associate Professor, GODSEM project leader
Department of Management Engineering
Technical University of Denmark

June 2017

**Effective product requirement identification and
business model developement for emerging markets** 3.

CHAPTER #03
A toolkit to support business model innovation for emerging markets

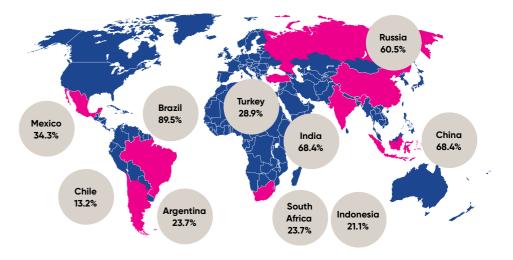# Opportunities and Challenges in Emerging Markets

#01.

Small Companies on Big Markets

Emerging markets comprise a group of fast-growing, liberalising and newly industrialising economies, with China and India as the most well-known examples. In the last decade, emerging markets have become a significant player in the world economy. The promising growth and attractive opportunities have increasingly enticed more companies to invest and sell products in emerging markets.

4.7%

According to the World Bank (2011), emerging markets would have an average growth rate of 4.7% per year between 2011 and 2025, while the percentage would only be 2.3% for advanced economies or developed markets over the same period.

Rated top 10 Emerging Markets 2012–2017

Russia 60.5%
Mexico 34.3%
Brazil 89.5%
Turkey 28.9%
India 68.4%
China 68.4%
Chile 13.2%
Argentina 23.7%
South Africa 23.7%
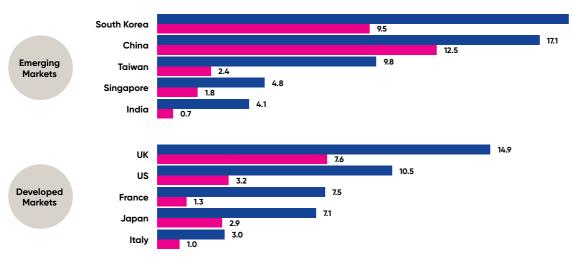Indonesia 21.1%

Source: *Global Intelligence Alliance, Business Perspectives on Emerging Markets 2012–2017 Survey. Qn: Whitch are the top 5 Emerging Markets for your industry over the next 5 years? N=38*

In addition, the companies originating from emerging markets have achieved considerable results in product development and now wield notable influence in global business. For example, China has been broadly perceived as a new centre of gravity for global R&D activities (Li and Yue, 2005; Chen and Vang, 2008). It has been not only beneficial but also critical for global manufacturing companies to acquire knowledge of emerging markets, so that they can gain a foothold over their rivals in these rapidly emerging markets.

South Korea and China lead the way in e-commerce

Percent*

As of February 28, 2017
*Retail value (excludingsales tax) of merchandise transacted online.
Source: Euromonitor International and AB

(Saltiel and Jayasundaram, 2017)

CASE

Developing-world countries and companies are rapidly becoming Internet trendsetters – especially in online retail and digital payments.

In several emerging markets, e-commerce penetration is higher than in developed markets despite lower per capita incomes. In fact, in some countries, the lack of a developed retail infrastructure proves to be an asset for e-commerce leaders.

- **Laurent Saltiel**, *Chief Investment Officer – International Large Cap Growth and Emerging Markets Growth, AllianceBernstein*

- **Naveen Jayasundaram**, *Research Analyst – Growth Research, AllianceBernstein*

How are emerging markets different from developed markets?

Low average per capita income

Despite rapid growth, emerging markets still have a low to middle per capita income (Kuepper, 2016). Much of the population are living in the low-income regions, which are defined as rural households or referred as the 'bottom of the Pyramid'. These inhabitants are generally illiterate and do not have the knowledge and skills regarding the use of certain products (UNDP, 2008).

Distinctive sociocultural contexts

Geographically, emerging markets include countries located in Central and Eastern Europe, Middle East, Latin America, East and Southeast Asia and Africa. These countries have different histories, cultures and social customs from each other, and these contexts are even more different from developed markets, e.g., countries in West and North Europe and North America.

Heterogeneous markets

Emerging markets are not homogenous but highly fragmented (Sheth, 2011). The contexts, e.g., income levels and cultures, vary even within the same country, e.g., from the East China to West China. This challenges the attempts to study emerging markets as a whole and compare them to developed markets (Hoskisson et al., 2000).

"The distance from Shanghai to rural China is bigger than from Shanghai to Copenhagen."

Steven Altman, Senior Research Associate
(Suitable for Growth Project, 2014)

Underdeveloped legal and regulatory environments

The regulatory environments of emerging markets are in general unstable and underdeveloped, and the enforcement of existing rules is insufficient (UNDP, 2008). Product development can be obstructed by the underdeveloped external institutions in emerging markets, which are often associated with for example highly bureaucratic and corrupt legal-political governance (Chen et al., 2013).

Severe competition

In emerging markets, a company competes with a large number of both local and international competitors (Gu, Hung and Tse, 2008). The competition in emerging markets is more chaotic due to the relatively poorer protection of intellectual property rights and other consequences of the underdeveloped regulatory environments. A price-based competition strategy was popular in Asian emerging markets, whereas a quality-based competition approach was commonly used in developed markets (Er, 1997) .

Inadequate infrastructures and resources
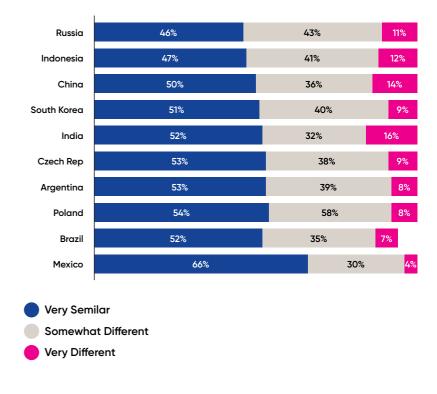
The infrastructures, e.g., roads, logistics, power supplies, sanitation and telecommunications, are generally inadequate and underdeveloped in emerging markets. There is also a shortage of supporting resources, such as technology, education and finance. For instance, the technology is often less mature and invested within emerging markets compared to developed markets (Sheth, 2011).

Current adaption for emerging markets is still insufficient

Western companies often sell existing products to emerging markets. Approximately half of the products sold by western companies to emerging markets are existing products, which are more often than not outdated products at a lower price (Deloitte Touche Tohmatsu, 2006). This strategy has been argued to be insufficient to win over emerging markets. Successful companies normally reconfigure their global products to compete with consumers' preference for popular local brands, in price, services, etc. (Bloch, Shankar and Schaus, 2007). Successful innovations should be tailored to the target market and creatively find ways to meet the requirements of a diverse customer base (Griffin, 2013). Understanding the characteristics of emerging markets and addressing their unique needs and requirements is assumed to be a key success factor for developed-market companies when developing for emerging markets (Subramaniam, Ernst and Dubiel, 2015). Therefore, it requires taking a nuanced and informed approach to the analysis of requirements in the context of emerging markets, especially of those that are distinct between emerging and developed markets.

Products Sold in Emerging Markets Often the Same as at Home

How Products Sold by Company in Emerging Markets Compare to Products Sold in Home Market

Country	Very Similar	Somewhat Different	Very Different
Russia	46%	43%	11%
Indonesia	47%	41%	12%
China	50%	36%	14%
South Korea	51%	40%	9%
India	52%	32%	16%
Czech Rep	53%	38%	9%
Argentina	53%	39%	8%
Poland	54%	58%	8%
Brazil	52%	35%	7%
Mexico	66%	30%	4%

● **Very Semilar**
● **Somewhat Different**
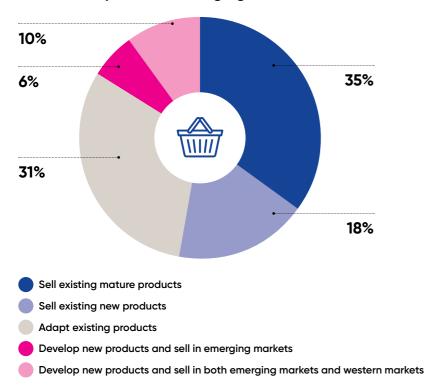● **Very Different**

Source: *One or More Member Firms of Deloitte Touche Tohmatsu*

"Companies fail when they naïvely attempt to thrust their brand and products on a new market with little if any adaptations or, worse, generalise a Spanish strategy for the entire Latin American market."

Kevin Gilroy, Senior Vice President and General Manager, Global Small & Midmarket Segment at SAP.
Polly Traylor, Freelance Writer who reports on business and technology.

Danish companies in Emerging Markets (N=51)

10%

6%

31%

35%

18%

- ● Sell existing mature products
- ● Sell existing new products
- ● Adapt existing products
- ● Develop new products and sell in emerging markets
- ● Develop new products and sell in both emerging markets and western markets

Our research on Danish industry shows a similar pattern: approximately half of Danish companies simply bring existing products to emerging markets without adaption. Danish companies should also make an effort to identify accurate requirements and fully understand them, so that they can design suitable products for these markets.

Definition
When we use the word requirements, we think of the qualitative and quantitative definition of the functions and constraints to be fulfilled by a product (VDI, 1987).

CASE

The success learned from a failure - Mattel and Barbie

Mattel, the famous American toy manufacturer, launched a flagship concept store of Barbie dolls in Shanghai in 2009. The company used their traditional approach of providing different Barbie themes and a huge variety of accessories. However, the store was shut down after only two years as they overlooked the special requirements of local Chinese customers. Instead of admiring Barbie as a cultural model and fashion pioneer, Chinese parents prefer to give their children a toy that can reflect grace and good manners. After deep analysis, Mattel returned to the Chinese market with a new strategy. They released a new blond Barbie called "Musician Violin" at a more affordable price. It helped them to boost their sales and regain the market (Marquis and Yang, 2014).

Coca-Cola's winning strategy

By adapting their strategies, products and services to the specific conditions in India, Coca-Cola paves its way to lead the Indian soft drink market. The company wants to ensure 25% of sales each quarter in the long-term and push the soft drink consumption in Indian homes towards 90% in the future. The sales in India can be largely influenced by season in India, where there are periods of heavy rain mixed with sustained sunshine. To overcome this, Coca-Cola focuses on in-home and in-premise consumption, which is not impacted by seasons. They access various channels, such as theatres, restaurants and shopping malls to boost in-home or in-premise consumption. To serve chilled drinks in regions which do not have a consistent electricity supply in rural areas in India, Coca-Cola provided solar-powered coolers for ice boxes to distributors, alongside the use of sachets of powder which can be mixed with water (Warc, 2011).

Identifying requirements for emerging markets is difficult

Our research identified five main obstacles faced by Danish companies when developing products for emerging markets. These obstacles are highly relevant to requirement identification. Western companies generally lack sufficient understanding about the local requirements and needs, particularly about the requirements from the regulatory and user perspectives, due to the inherent differences of users and regulatory environments between emerging and developed markets. This lack of understanding can lead to misinterpretation and missing information in requirement identification, and is likely to result in inappropriate products being brought to the markets. This result testifies to the importance of making the effort to understand the design requirements for emerging markets.

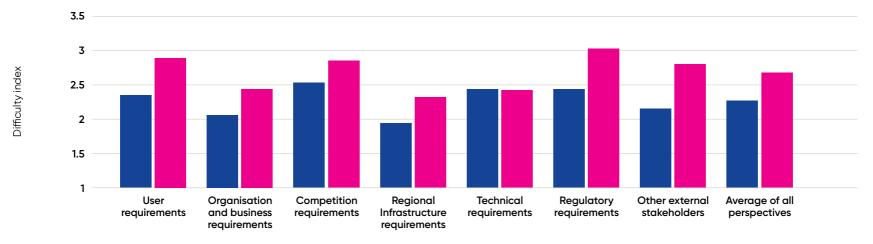**Five main obstacles faced by Danish companies when developing for emerging markets (n=64).**

Obstacles	Counts	%	Relevance to design requirements
Difficult to reach and understand the local regulation and to get local approvals	28	43.8%	A lack of understand of regulatory requirements
Different business culture	27	42.2%	Difficulty in communication when eliciting design
Insufficient understanding of market needs	22	34.3%	A lack of understand of design requirements,
Unstable political and regulatory environment	22	34.3%	Difficult to handle the change in regulatory
The shortage of financial support	21	32.8%	Limited resource can be used for identifying design

Danish companies find that requirement identification for emerging markets is more difficult than for home markets, particularly when considering user requirements, regulatory requirements and other external stakeholders' requirements (for example, suppliers' and manufacturers' requirements).

For western companies, identifying requirements for emerging markets is more dificult than for home markets

Difficulty index

	3.5
	3
	2.5
	2
	1.5
	1

User requirements | Organisation and business requirements | Competition requirements | Regional Infrastructure requirements | Technical requirements | Regulatory requirements | Other external stakeholders | Average of all perspectives

Different requirements considered in product development

● Home markets   ● Emerging markets

Developing business models for emerging markets is challenging, but can also be rewarding

Western companies are always more interested in emerging markets as a potential new source of growth. Indeed, a successful entry into these markets can create immense opportunities to expand their customer base and sustain a successful business model.

However, business model development for emerging markets should not be a mere import of the domestic models used for new markets.
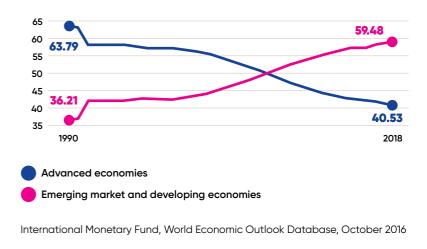
Indeed, western companies often look for additional exploitation for existing offerings, by lowering prices or maybe designing and manufac-turing their products locally, without making any fundamental change to their business and revenue models (Eyring et al., 2011). However, in this way, they only target the top-of-the-pyramid consumers, who are the one that can afford Western products and services. These segments are becoming bigger and bigger in emerging markets, but Danish SMEs should not be limited to these top-of-the-pyramid segments.

"An open mind is perhaps the most important asset anyone can bring to emerging markets"

Eyring et al., 2011, Harvard Business Review

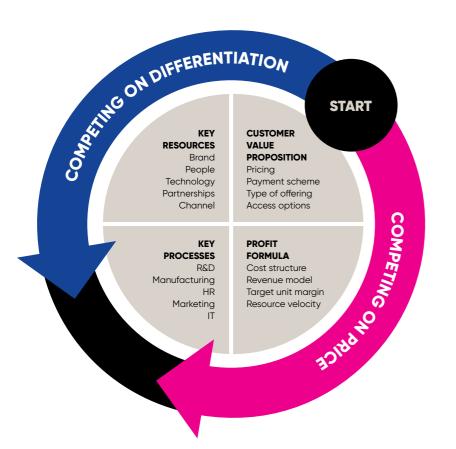### Emerging economies now account for almost three-fifths of world GDP

Gross dometic product based on purchasing power parity share of world total (in %)

- ● Advanced economies
- ● Emerging market and developing economies

International Monetary Fund, World Economic Outlook Database, October 2016
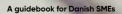
Source: www.livemint.com

To expand their customer base and create new sustainable sources of growth, Danish SMEs should focus on the identification of unmet needs and, accordingly, design new and profitable business models. These newly designed business models should also be steadily adjusted and developed, to evolve and adapt according to changes in the relevant markets.

COMPETING ON DIFFERENTIATION

COMPETING ON PRICE

START

KEY RESOURCES
Brand
People
Technology
Partnerships
Channel

CUSTOMER VALUE PROPOSITION
Pricing
Payment scheme
Type of offering
Access options

KEY PROCESSES
R&D
Manufacturing
HR
Marketing
IT

PROFIT FORMULA
Cost structure
Revenue model
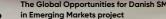Target unit margin
Resource velocity

Offerings that compete on differentiation require companies to ask themselves, "What do I have to do to produce this?" This will lead you counterclockwise around the model, looking first at what resources and processes are needed because the cost of which will determine what price can deliver the desired profit margin.

Being affordable is critical in emerging markets, the decision journey is mostly clockwise. Companies start with a value proposition, then focus on revenue model, devise the cost structure required to deliver a certain unit margin and finally, focus on the organisation of key processes and key resources acquisition.

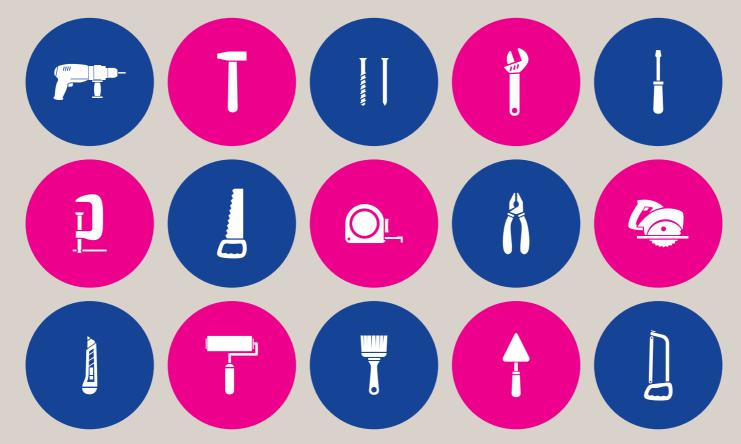**Source:** *Eyring et al., 2011, Harvard Business Review*

CHAPTER #02.

A toolkit to support requirement identification for emerging markets

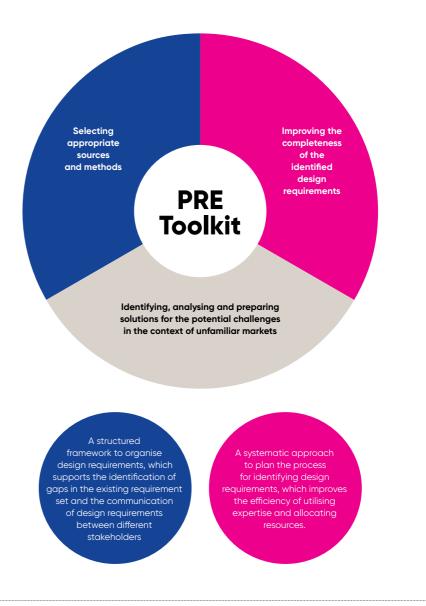# Perspective-oriented Requirement Excellence (PRE) Toolkit

Based on our research on Danish companies' practice of identifying requirements for emerging markets, we developed the Perspective-oriented Requirement Excellence Toolkit (PRE toolkit). It is a set of tools and processes that supports companies when preparing and planning the process of identifying design requirements.

Who should use the PRE toolkit?

The PRE toolkit is designed for product development professionals:

- Who are in charge of identifying design requirements in a product development project;

- Who found it difficult to identify complete design requirements;

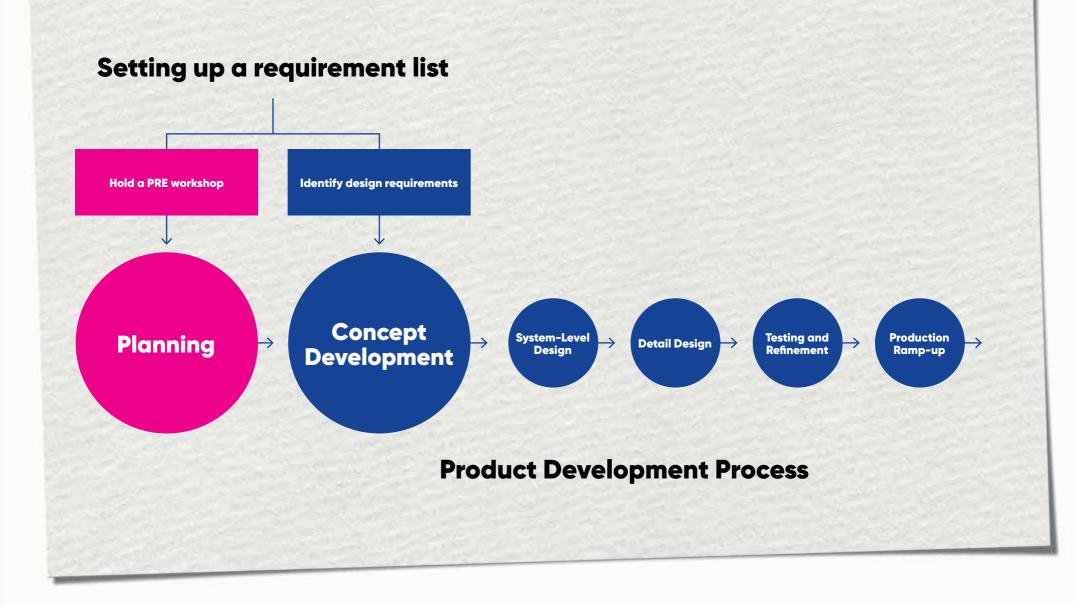- Who are interested in improving the efficiency of identifying design requirements.

PRE Toolkit

Selecting appropriate sources and methods

Improving the completeness of the identified design requirements

Identifying, analysing and preparing solutions for the potential challenges in the context of unfamiliar markets

A structured framework to organise design requirements, which supports the identification of gaps in the existing requirement set and the communication of design requirements between different stakeholders

A systematic approach to plan the process for identifying design requirements, which improves the efficiency of utilising expertise and allocating resources.

How does the PRE fit into the product development process?

In a classic product development process, for example, the generic product development model developed by (Ulrich and Eppinger, 2011), design requirements are identified early in the concept development phase. The traditional process of identifying design requirements is an iterative process consisting of various activities, such as requirement elicitation, analysis, specification and validation. The PRE toolkit suggests having a workshop (the PRE workshop) at the planning stage to prepare and plan the process of identifying design requirements before it actually starts. The toolkit also provides instructions to organise the PRE workshop step by step together with necessary templates.

Setting up a requirement list

```
Hold a PRE workshop          Identify design requirements
        │                              │
        ▼                              ▼
     Planning              Concept Development  →  System-Level Design  →  Detail Design  →  Testing and Refinement  →  Production Ramp-up  →
```

Product Development Process

Three phases to organise a PRE workshop
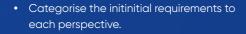
A PRE workshop consists of three phases. Phase 0 clarifies the objectives and prepares input for discussion. Phase 1 categorises design requirements and identifies gaps. Phase 2 defines specific tasks for requirement identification and makes a feasible plan. By holding a PRE workshop, a company can expect; 1) a structured list of initial design requirements, which can be used as the starting point for identifying new design requirements; and 2) an action plan for the process of identifying design requirements.

PHASE #0.
Collect input

- Clarify the timeframe and resources allocated for identifying requirements in the project and the objectives for the workshop.

- Specify the redefined perspectives for the project and collect information or create simple personas for each perspective.

- Collect existing requirements from previous projects and the product family.

PHASE #1.

Categorise Requirements and Identify Gaps

PHASE #2.

Make an Action Plan

A structured list of initial design requirements, which can be used as the starting point for identifying new design requirements

An action plan for the process of identifying design requirements

- Categorise the initinitial requirements to each perspective.

- Come up with additional requirements, especially those that are special for the new context

- Identify gaps (what information is missing) for each perspective.

- Cluster the requirements that need to be validated and the missing information. Clarify and define the clusters into doable tasks.

- Identify the information sources where you can collect information for each task.

- Organise the sources and make a feasible plan.

Phase 0:
Collect input

STEP 1.

Clarify the timeframe and resources allocated for identifying requirements in theproject and the objectives for the workshop.

STEP 2.

Use the seven predefined perspectives as a guide. Specify these perspectives forthe project and create simple personas for each perspective.

Check the seven perspectives in the Perspective Tree on next page. Check the persona example on the next page. Document these perspectives and personas in the Perspective Table (Template 1).

STEP 3.

Collect existing design requirements generated from previous experience, etc (including the requirements estab-lished for previous projects).

TIPS

• To be effective, this phase is ideally prepared prior the workshop.
• Invite participants from different functions, such as management, marketing, sales, development, manufacturing and service, to minimise the risk of missing important insights or being biased with the information.

TIPS

• Explicitly consider the culture in target markets, when developing unfamiliar markets. Culture differs from market to market and can influence the how users perceive and use the product or what the manufacturers expect from the product.

TIPS

• These existing requirements will be used as the starting point to generate new requirements.

A perspective tree

A user perspective	An organisational andbusiness perspective	A competition perspective	A regional infrastructure perspective	A regulatory perspective	A technical perspective	Other external stakeholders' perspectives
The customer needs and users' expectations about the product's capabilities, experience, aesthetics, usability, etc.	Includes such concerns as the strategic plans, business situation, financial status, and marketing that affect the product design.	The concerns about the competition situation and competitive landscape in the target market.	The condition of the services and facilities in the region that are necessary for the product to function, e.g., roads, electrical grids, water supply and telecommunications.	The governmental regulations, certifications, and international and regional standards about such issues as safety & health, environment & ecology, disposal and polity	The technical aspects that a product must fulfil, e.g., technical functions, technical performance and engineering requirements.	The expectation of the product from external stakeholders involved in the product life cycle except users, including suppliers, manufacturers, distributors, and business partners

Consider these perspectives when you identify requirements

Template 1

Download the excel template on our website: **godsem.dk**

Phase 1 checklist:

◯ Did we clearly define the objectives of this workshop?

◯ Did we go through all seven perspectives?

◯ Did we cover all important actors?

◯ Did we collect all relevant existing requirements?

Phase 1: Categorise Requirements and Identify gaps

GOAL:
Phase 1 aims at gaining an overview of existing design requirements and identifying new requirements and gaps

STEP 1.
Categorise the initial design requirements to each perspective.

Use the Requirement Table (template 2) to support your categorisation.

STEP 2.
Propose additional requirements, especially those which are special for the new context.

Check the list of supporting questions on next page for inspiration. Document these additional requirements also in the Requirement Table (Template 2).

STEP 3.
Identify gaps (missing information) for each perspective.

Document these gaps also in the Requirement Table (Template 2).

TIPS
- By categorising the requirements, you will gain an overview. It will indicate what you might have overloked and support you when communicating requirements with different stakeholders.
- If you feel a requirement can match more than one perspec-tive, then try to break it down into a few more specific requirements or choose the most relevant perspective.

TIPS
- Differentiate the requirements between those which you are certain about and those which are based on assumptions to ensure the assumptions are checked.

TIPS
- These gaps form the basis to plan the specific tasks of requirement identification.

PERSPECTIVE	SUPPORTING QUESTIONS
User	• Who are your customers/users in the target market? How do they understand and use your product? • Do your target customers/users in the new markets have different demands and wishes for the products compared with the customers/users in your home market? • How does the cultural differences between the target market and your home market influence your target customers/users? • How do the competitors' products in the target market influence customers' choices? • Is the infrastructure in the target market adequate to support the use of the product?
Organisational and business	• What are your strategies for the target market? • How would your strategies affect the design?
Competition	• How is the competitive landscape in the target markets? Who are the key competitors? Are there many unbranded local competitors? • How would the competition affect the design?
Regional infrastructure	• What infrastructure is needed for your product to function? • Is the regional infrastructure in emerging markets adequate to support the distribution and operation of your product? How would this affect the design?
Technical	• Are there any special technical requirements, which are required due to the condition of the infrastructure and environment in the target market?
Regulatory	• Does your target market require any special regulations or standards? • Do you have access to all the relevant regulatory documents? Are the documents in the language that you can understand? • Is there any space for negotiation? If so, how do the cultural differences influence the negotiation?
Other external stakeholders	• Do you involve any new stakeholders when designing and selling the product to the target market? • Do the external stakeholders (e.g., suppliers, manufacturers, and distributors) have special demands and wishes for the product? • How does the cultural differences influence those external stakeholders? • Is the infrastructure in the target market adequate to support the production and distribution of the product? • How does it influence the stakeholders' expectations?

Template 2

Download the excel template on our website: **godsem.dk**

Phase 1 checklist:

◯ Did we categorise all requirements?

◯ Did we add additional requirements for all perspectives?

◯ Did we identify gaps for all perspectives?

Phase 2: Make an action plan

GOAL:
Phase 2 aims at defining the tasks of identifying design requirements and making a feasible action plan for the execution

STEP 1.
Cluster the requirements that need to be validated as well as the missing information.

Document the tasks in the Task Table (template 3).

STEP 2.
Identify the sources where you can collect information from for each task.

Document the sources also in the Task Table (Template 3).

STEP 3.
Evaluate and select sources, and make a feasible plan.

Use the Action Plan template (template 4) to support this step.

TIPS
- Clarify and define the clusters into doable tasks. Validating existing requirements and identifying new requirements are two different types of activities.

TIPS
- Try to identify multiple information sources for each task, so that the you can compare these sources and prepare backup solutions for emergent situations.
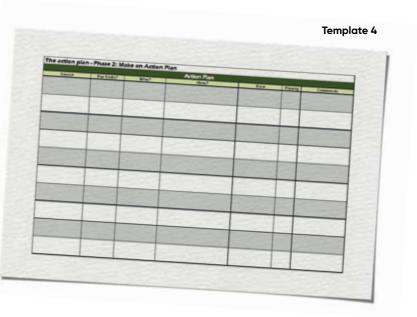
TIPS
- Organise the tasks following the sources, so that it is clearly from each source what information is needed and all relevant questions for one actor can be asked together.
- You can assess the time needed to gather information from each source, prioritise the sources and assign a responsible person for gathering information from each sources.

Template 4

Template 3

Download the excel
template on our website:
godsem.dk

Phase 2 checklist:

○ Did we translate all validation activities and missing information into tasks?

○ Are the tasks all clearly defined?

○ Did we identify all major available sources?

○ Is our plan feasible?

A toolbox to support business model development for emerging markets

A blueprint for Business Model Development

Companies in general go through three stages to implement their business model innovation:

Step 1: Creation
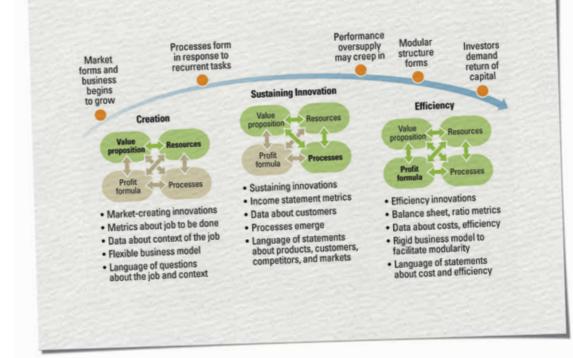Figuring out a clear value proposition for customers
(sometimes new customers and value propositions are co –created) and a small band of initial resources bundles are specified to kick off the journey

Step 2: Sustaining
Scaling up is the focus and building various business processes to lock down the current model is the key

Step 3: Efficiency
Trying all means to reach the breakeven point to ensure the attraction and reception of next round of investment. Ensuring customers keep paying is the key.

Source: Christensen et al., 2016, MIT Sloan Management Review

Why? **Who?** **What?** **How?** **Where?**

Business Model innovation requires managers' attention to the dynamic interactions among the key components of their business model.

Prioritizing is a management discipline, but timing is an art.

During the project, we found that some firms do not necessarily follow the exact order of actions that are prescribed in the business model development blueprint. Why do firms do that? The answer, nevertheless, lies in the distinction between sequential allocation of attention ("prioritising") and temporal order of actions ("timing").

Prioritising is the result of a complex environment, which managers perceive according to limited information while constrained by bounded rationality. By sequential allocation of attention to seemingly conflicting goals, managers are able to manage a complex system.

However, attention allocation might differ from actual action taking. **Timing** indicates the exact moment when a firm decides to take actions. In fact, theories in decision-making have recognised that orders in decision making are not conventional – there is a temporal order of actions that do not necessarily follow consequential logic. In other words, prioritising and timing are not always synchronised and the deviation between the two has implications to the direction of a business model. Companies need to understand the interplay between prioritising and timing.

A Performance Measurement System to support Business Model Development

From our research, we found that:

1. Performance measurement system (PMS) can be a useful tool for driving the implementation and operationalisation of a SMEs' business model and strategy. In other words, it helps managers to prioritise.

2. The Business Model (BM) can be beneficially integrated into the PMS tool, due to its capability to combine a holistic and strategic perspective with an internal analysis of the company.

3. Fast growing SMEs tend to realise the need for PMS with the development of new business model.

We introduce:

The PMS-BMD approach

Definition:

A structured framework of business model development, which supports the identification of gaps in the current and future business models and develops performance measures to address these gaps

Advantage:

A systematic approach for SMEs to continuously develop their business models.

Who should use the PMS-BMD approach?

The PMS-BMD approach is designed for professionals:

- Who are in charge of developing the business model

- Who find it difficult to design a new business model from scratch or develop an existing business model

- Who are interested in business model development and performance measurement in SMEs
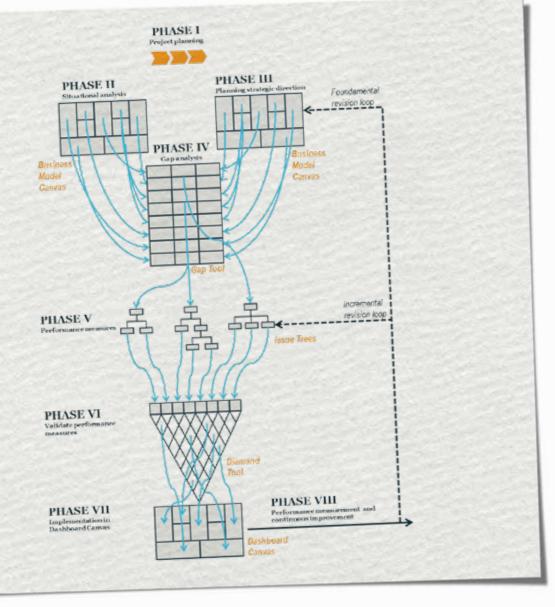
Eight phases to use the PMS-BMD approach

The PMS-BMD approach consists of eight phases (as illustrated in Figure next page).

1. **Phase I** plans the implementation of the PMS and communicates it throughout the company to engage employees and secure commitment

2. **Phase II** assesses company's current situation and identifies external factors that might influence company's business model

3. **Phase III** develops the company's desired future

4. **Phase IV** identifies the gap between the current situation and the desired future and converts it into strategic goals

5. **Phase V** breaks down the strategic goals to underlying drivers to identify relevant performance measures

6. **Phase VI** validates and prioritises all performance measures and focuses on the most essential aspects to achieve the strategic goals

7. **Phase VII** implements the performance measures in the final dashboard to initiate the process of performance measurement

8. **Phase VIII** monitors the performance of the company and makes improvement plans

PHASE I
Project planning

PHASE II
Situational analysis

PHASE III
Planning strategic direction

Foundamental revision loop

Business Model Canvas

Business Model Canvas

PHASE IV
Gap analysis

Gap Tool

PHASE V
Performance measures

Incremental revision loop

Issue Trees

PHASE VI
Validate performance measures

Diamond Tool

PHASE VII
Implementation in Dashboard Canvas

PHASE VIII
Performance measurement and continuous improvement

Dashboard Canvas

The Business Model Canvas is used to in this method, thanks to its coherence and simplicity to understand and communicate (Osterwalder and Pigneur, 2010). The Business Model Canvas describes nine essential building blocks (Customer segments; Value Propositions; Channels; Customer Relationships; Revenue Streams; Key Resources, Key Activities; Key Partners; Cost Structure), which show the logic of how a company makes money.

*Source: Rosati et al., 2017, **Working Paper***

Phase 1: Project Planning

The project is planned and communicated throughout the company to engage employees and secure commitment

GOAL:
To develop a project plan that will help create an overview of the tasks at hand and assemble a project

STEP 1.
Project Definition.

STEP 2.
Communication and employee engagement.

STEP 3.
Assignment of project responsibilities.

Check the W Checklist on next page.

TIPS

- The owners of the SME must engage with as many employees as possible in the definition of the project. This includes defining which activities are to be performed, by whom, the sequence they are ought to be carried out in (when) and what resources are needed.

TIPS

- Here, it is essential that management offers a clear explanation of the goals of the project and the possible benefits.
- This will help to both reduce employee resistance and stimulate employees to communicate their input and generate new ideas.

TIPS

- Owners must delegate responsibilities between employees. This creates a formal structure for the project and stimulate the creation of a multidisciplinary project team.
- The project team must appoint a project manager, who will later become the performance measurement manager when the PMS–BMD is implemented and operational.

Output:

A comprehensive project plan with specific delegated responsibilities and motivated employees.

The W checklist — Which, Who, When, What

Which activity has to be performed?	Who is the performer?	When has to be performed?	What is needed?

Phase 1 checklist:

◯ Did we clearly define the project and its activities?

◯ Did we clearly identify project goals and possible benefits?

◯ Did we delegate responsibilities?

◯ Did we appoint a project manager?

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Phase 2: Situational Analysis

Where the company's current situation is assessed and external factors identified

GOAL:
To clearly understand the current situation of the business with respect to both internal and external factors

STEP 1.
Internal analysis – defining the business model.

STEP 2.
External analysis – drives impacting the business model.

Check the Business Model Canvas on next page.

Check the Business Model Environment Canvas on next page.

💡 **TIPS**

- The first step is to understand how the business model is currently working. The Business Model Canvas (Osterwalder and Pigneur, 2010) serves as the framework for outlining the current business model.

💡 **TIPS**

- In this step, the project team analyses the external factors influencing; (i) the company; (ii) its business model; and (iii) its strategic direction. This is done by plotting the Business Model Environment Canvas proposed by Osterwalder and Pigneur (2010). The output of this step is a list (or map) of the external environment factors that have an impact on the business model, now and in the future.
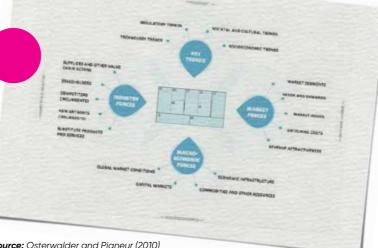
Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Output:

A qualitative Business Model Canvas, depicting the way the company currently does business.

The Business Model Canvas

Source: Osterwalder and Pigneur (2010)

The Business Model Canvas can be downloaded on Strategyzer's website:
strategyzer.com/canvas/business-model-canvas

Phase 2 checklist:

○ Did we clearly define the current business model?

○ Did we clearly identify the external factors influencing the company, now and in the future?

○ Did we clearly identify the external factors influencing the company business model, now and in the future?

○ Do we clearly identify the external factors influencing the company strategic direction, now and in the future?

Phase 3:
Planning the Strategic Direction

Where the company's desired future is developed

STEP 1.
Analysis of customer needs and future value propositions.

Check the Value Proposition Canvas on next page.

STEP 2.
Definition of the company's mission and vision.

STEP 3.
Creation of the desired future business model.

Check the Business Model Canvas on next page.

TIPS
- The SME defines the future customer segments and value propositions identify what creates the most value for the company. The Value Proposition Canvas helps to link a customer segment (and its needs, pains and gains) with a value proposition (product or service that becomes a gain creator and pain reliever).

TIPS
- Managers explicitly formulate and communicate the identified customer segments and value propositions throughout the company, by including them in its mission and vision. This step, thus, communicates the desired future of the company and the future value proposition engage employees, create commitment and improve performance.

TIPS
- The vision of the desired future business model and the development of the strategic direction require exploring new, ambitious, visionary and creative ideas. Setting a strategic direction with aspiring goals can increase the overall motivation to change in many areas of the company. However, there should be a clear order of prioritisation among the various strategic goals.
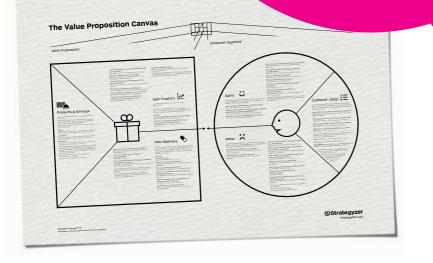
Output:

A plotted business model canvas, with defined strategic goals in the different building blocks, and a mission and vision statement of the company.

The Value Proposition Canvas can be downloaded on Strategyzer's website: **strategyzer.com/canvas/value-proposition-canvas**

Phase 3 checklist:

○ Did we carefully analyse the customer segment?

○ Did we clearly define the value proposition?

○ Did we define company's mission and vision?

○ Did we envision the desired future business model?

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Effective product requirement identification and business model developement for emerging markets

47.

Phase 4: Gap Analysis

Where the gap between the current situation and the desired future is identified and converted into strategic goals

STEP 1.
Identification of strategic gaps.

Check the Gap Matrix on next page.

STEP 2.
Formulation of strategic objectives.

Check the Gap Matrix on next page.

TIPS

- Ideas should be written on post-it notes and put on the Gap Matrix right away. Multiple iterations ensure the steady improvement of quality until the team is satisfied with the coverage of the gaps.

TIPS

- The aim of this step is to translate the identified strategic gaps into clear strategic objectives. The S.M.A.R.T. method for creating the objectives can be a useful tool to assure appropriate quality of the strategic objectives. S.M.A.R.T. is an acronym for Specific, Measurable, Attainable, Realistic and Time-sensitive, which are the properties the team should have in mind, when formulating the strategic objectives.
- The output of the session is a limited set of strategic objectives. Too many strategic objectives will make the PMS unmanageable and overly complex, while too few will ruin the holistic aspect of the PMS.
- It is crucial that the top management is deeply involved in this process to check the alignment between the formulated strategic objectives and the company's future strategic development.

The Gap Matrix is a simple tool that enables the team to dissemble the current business model and the desired future business model into their components: the nine building blocks. The content of the building blocks of the current and future business model is transferred to the Gap Matrix. In the gap column, the project team identifies and reports the strategic gaps between the current and future business model building blocks on the right and left hand side.

The Gap Matrix

	Current business model	Gap	Future business model
Customer Segments			
Value Proposition			
Channels			
Customer Relationships			
Revenue Streams			
Key Resources			
Key Activities			
Key Partners			
Cost Structure			

Output:

A list of the identified strategic gaps, formulated as strategic objectives.

Phase 4 checklist:

◯ Did we clearly identify the strategic gaps?

◯ Did we formulate the strategic objectives?

◯ Did we use the S.M.A.R.T. method in the formulation of the strategic objectives?

◯ Did we deeply involve top management in this process?

Phase 1
Phase 2
Phase 3
Phase 4
Phase 5
Phase 6
Phase 7
Phase 8

Effective product requirement identification and business model developement for emerging markets

49.

Phase 5:
Performance Measures

Where the strategic goals are broken down to underlying drivers to identify relevant performance measures

STEP 1.
Identification of underlying drivers.

STEP 2.
Formulation of performance measures.

Check the Issue Tree Tool on next page.

Check the Issue Tree Tool on next page.

TIPS
- The Issue Tree method offers managers a logical and simple way of breaking down a problem or objective into its components following a hierarchical breakdown.
- A simple example is shown on next page. This process can be continued until all underlying drivers are identified and illustrated in a comprehensive diagram.

TIPS
- This step turns the identified underlying drivers into specific focus areas and PMs. The drivers indicate what to concentrate on, but not how to measure it. For example, a company strategic objective could be to improve customer satisfaction. There might be several underlying drivers to customer satisfaction, e.g. customer complaints. Customer complaints can, for example, be measured by comparing the total number of complaints with the total number of orders.
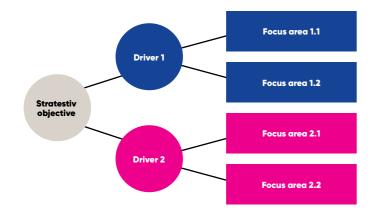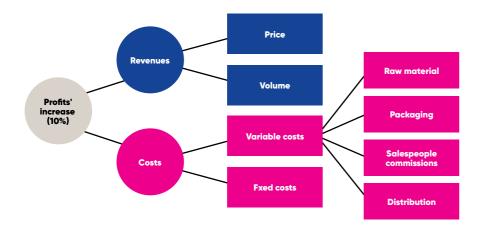
Issue tree tool

Issue tree example

Output:

An issue tree for every strategic objective that shows underlying drivers and a list of the identified drivers quantified into measurable KPIs

Phase 5 checklist:

○ Did we clearly break down strategic objectives into their underlying drivers and focus areas?

○ Did we go through all underlying drivers and focus areas to generate relevant PMs?

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Phase 6: Validation

GOAL:
To cross validate the identified operational KPIs for condensation of the final selection of KPIs

Where all performance measures are validated and prioritised in order to focus on the most essential aspects to achieve the strategic goals

STEP 1.
Cross validation of measures
– creation of the rough Diamond.

STEP 2.
Trimming of the Diamond – selection of the right final measures.

Check the Diamond Tool on next page.

Check the Diamond Tool on next page.

TIPS
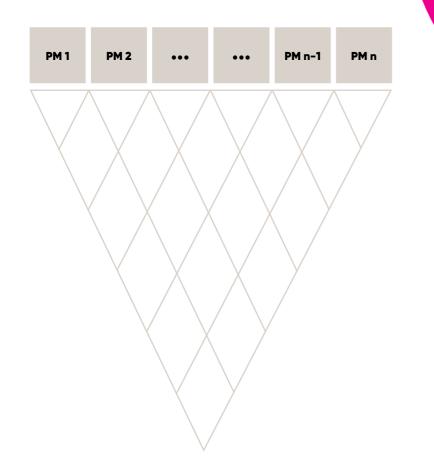
- The Diamond tool serves as an instrument to validate the PMs generated in phase V, by ensuring that all the identified measures are non-redundant and non-contradictory. In particular, the tool assists the project team in identifying relationships between the measures that can be; identical (=); positive (+); negative (-); or independent.

TIPS

- In this step, the rough Diamond is trimmed to remove its imperfections, through an iterative process that requires the team to; (i) merge measures that are identical or close to identical; and (ii) remove or adjust the measures that are negatively dependent.

The Diamond Tool

PM 1	PM 2	...	...	PM n-1	PM n

Output:

The final selection of performance measures.

Phase 6 checklist:

◯ Did we cross validate all the measures?

◯ Did we merge measures that are identical or close to identical?

◯ Did we remove or adjust the measures that are negatively dependent?

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Phase 7: Implementation in Canvas

Where the performance measures are implemented in the final dashboard to initiate the process of performance measurement

STEP 1.
Distribution of the measures into the Dashboard Canvas.

STEP 2.
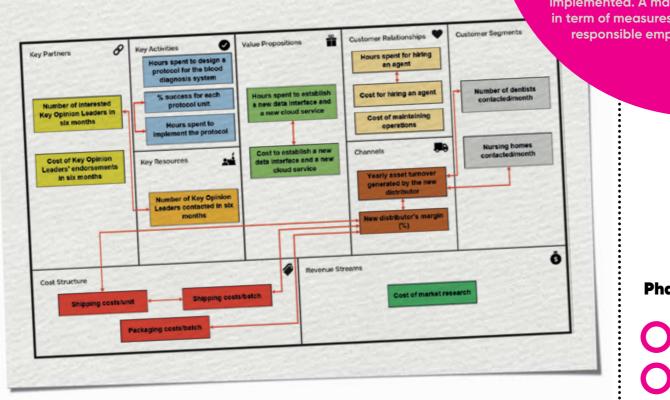Planning and detailing the established measures.

TIPS

- The layout for the Dashboard Canvas is based on the nine building blocks of the Business Model Canvas. Each performance measure is traced back to the strategic objective that it was derived from and, hence, to the relating building block of the gap analysis (Phase IV). The relationships identified in the trimmed Diamond (Phase VI) are added as connections between measures, to ensure that the dashboard also visualises how the measures are tied together.

TIPS

The aim of this step is to prepare the launch of the Dashboard Canvas. This requires that the selected PMs are appropriately detailed. In particular, the detailing of the PMs should establish:

- Who is responsible for each individual measure, in terms of data quality assurance and measure computing
- What data the measure is based on
- What the target of the measure is
- What threshold represent the acceptable level of performance
- How the measure is visualized and communicated
- How often the measure is calculated
- What the formulas for calculating the measure is

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

Phase 8

Output:

A Dashboard Canvas with the selected measures implemented. A manual detailing each measure in term of measures, targets, update frequency, responsible employee, and visualization.

An example of Dashboard Canvas

Phase 7 checklist:

- Did we distribute the PMs in the Dashboard Canvas?

- Did we add the connections between the measures in the Dashboard Canvas?

- Did we plan and detail the established measures?

Phase 8:
Performance Measurement and Continuous Improvement

Where the performance of the company is monitored and improvement plans are made

STEP 1.
Performance evaluation and stimulation of continuous improvement efforts.

STEP 2.
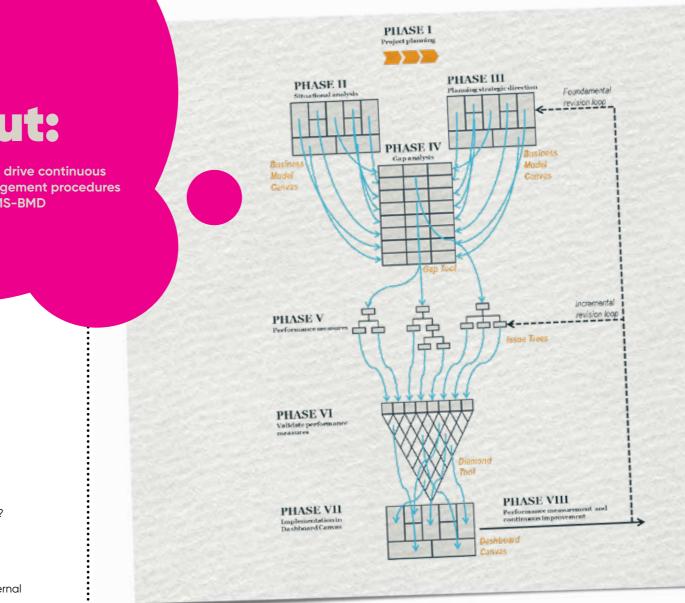Revision of the Dashboard Canvas and adjustment with incremental and fundamental changes.

GOAL:
To evaluate performance to drive continuous improvement efforts and adjust the Dashboard Canvas to reflect internal and external changes

TIPS

• In this step, the project team analyses the performance results and compares them to the respective projections. By identifying what went wrong or right, the company's managers can develop future action plans, redesign business processes and reallocate resources. In this way, the PMS–BMD approach stimulates continuous improvement efforts.

TIPS

• To keep the PMS–BMD dynamic, it must be frequently updated to reflect internal and external changes. The Dashboard Canvas can be revised either incrementally or radically. To revise it incrementally, the project team can create a feedback loop from the Dashboard Canvas to Phase V, where the Diamond tool is introduced (see Figure on next page). The radical revision, instead, is achieved by creating a feedback loop from the Dashboard Canvas to the very beginning of the PMS–BMD (Phase III).

Output:

A clear action plan of how to drive continuous improvements effort and management procedures to maintain the PMS-BMD

Source: Rosati et al., 2017, Working Paper

Phase 8 checklist:

○ Did we evaluate performance results?

○ Did we develop future action plans?

○ Did we update the PMS to reflect internal and external changes?

Phase 1
Phase 2
Phase 3
Phase 4
Phase 5
Phase 6
Phase 7
Phase 8
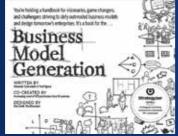
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KONKURRENCEEVNE
The Danish Industry Foundation