

VIRTUAL GUIDE ON ENTREPRENEURSHIP  
Learning unit 3 Developing a business model  
Lesson 1

# Developing a business model. Part 1



Innovative smart textiles & entrepreneurship

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## 1. Introduction

In the realm of smart textiles, business model development stands as a pivotal cornerstone for success. As this dynamic industry continues to merge fashion and technology, crafting an effective business model becomes essential for harnessing its immense potential. This introduction explores the critical role of business model development in navigating the evolving landscape of smart textiles.

## 2. Business model, definition, and purpose

A business model is a framework for how a company creates, delivers, and captures value. It is essential for any business, as it helps identify the market's problem or opportunity, understand the customers' needs and preferences, and develop a strategy for delivering a product or service that meets those needs.

Business model development involves a systematic process of conceptualizing, designing, and refining the components that make up a business model. This process begins with a deep understanding of the market environment, including customer needs, industry trends, and competitive landscape. The key elements included in a business model are:

1. **Value Proposition:** At the core of any business model is the value proposition - what unique benefit or solution the company offers its customers. A strong value proposition addresses customer pain points and distinguishes the business from competitors.
2. **Customer Segmentation:** Identifying and segmenting target customer groups is crucial. Businesses must understand these segments' distinct needs and preferences to tailor their value proposition effectively.
3. **Channels and Distribution:** Determining how products or services reach customers involves selecting appropriate distribution channels. These channels can be physical, digital, or a combination, depending on the nature of the business.
4. **Revenue Streams:** Business models must outline how the company generates revenue. This could be through product sales, subscription fees, advertising, licensing, or other monetization strategies.
5. **Cost Structure:** Understanding the cost structure is vital for profitability. Businesses must manage and optimize their expenses to ensure revenue surpasses costs.

Developing a sound business model in the smart textiles industry is especially critical, as it is a rapidly growing field with great potential. The market for smart textiles is expected to reach \$5.5 billion by 2026<sup>1</sup>, driven by the increasing demand for wearable technology, health monitoring devices, and smart clothing.

In the smart textile market context, business model development takes on unique characteristics due to the industry's dynamic nature, driven by the convergence of textiles and technology forcing companies to integrate a series of important elements such as:

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<sup>1</sup> <https://www.marketsandmarkets.com/Market-Reports/smart-textiles-market-13764132.html>

- **Technology Integration:** Smart textiles integrate cutting-edge technologies like sensors, connectivity, and data analytics into the fabric. Business models must address the complexities of this integration, including R&D, manufacturing, and quality control.
- **User-Centric Design:** Developing a business model for smart textiles requires a deep understanding of end-users needs, preferences, and pain points. User-centric design thinking is vital for creating products that resonate with consumers.
- **Ecosystem Collaboration:** Smart textiles often require collaboration with technology partners, data providers, and app developers. Business models may involve ecosystem partnerships to deliver a complete solution.
- **Data Monetization:** For some smart textiles, the data generated by sensors and wearables can be a valuable asset. Business models may explore opportunities for data monetization or subscription-based services.
- **Sustainability:** Sustainability considerations are increasingly important in the textile industry. Business models may incorporate eco-friendly materials and processes to align with consumer and regulatory demands.
- **Regulatory Compliance:** The integration of electronics into textiles often requires compliance with safety and regulatory standards. Business models should address the costs and processes associated with meeting these requirements.

Furthermore, a thoughtfully crafted business model helps companies align their resources and capabilities and facilitates innovation. In smart textiles, where innovation is pivotal to staying competitive, a well-structured business model can encourage the development of groundbreaking technologies, novel applications, and disruptive solutions. This, in turn, not only drives growth but also enables businesses to lead the charge in revolutionizing the industry.

In summary, business model development, whether in a general context or specific to the smart textile market, is a multidimensional process that requires a holistic understanding of market dynamics, technology trends, customer needs, and industry-specific challenges. A well-crafted business model is a dynamic framework that adapts to changing circumstances, ensuring a company's resilience and competitiveness in a rapidly evolving business landscape.

### 3. Identifying the Problem

The key to a successful business venture is effectively identifying a problem that can serve as the catalyst for a strong and profitable opportunity. If your product or service does not solve a problem and create value for your customers, you won't have any.

#### 3.1. The importance of Problem identification

Entrepreneurship, at its core, revolves around the art of problem-solving and the creation of substantial value. The initial step in this journey, the process of identifying a problem, holds exceptional significance as it serves as the bedrock upon which the entire entrepreneurial venture is built. When an entrepreneur successfully identifies and addresses a real, pressing problem, the ripple effect is remarkable. This process not only generates demand but also

unveils a promising market opportunity. It's akin to uncovering a hidden gem in the business landscape, ready to be harnessed.

Moreover, the act of solving real problems yields solutions that transcend the superficial. These solutions possess depth and authenticity, making them both meaningful and sustainable. They are not merely quick fixes but rather enduring contributions to society and commerce.

In this context, creating value for customers becomes second nature. Customers gravitate toward solutions that genuinely make their lives better, and entrepreneurs who provide such solutions earn not only loyalty but also advocacy. Furthermore, the pursuit of solving real problems fuels innovation. It drives entrepreneurs to think outside the box, pushing the boundaries of what's possible and often results in groundbreaking advancements.

Ultimately, this commitment to addressing authentic issues and creating tangible value is a catalyst for long-term business growth. Entrepreneurs who embark on this journey understand that they are not just building ventures; they are nurturing legacies that have the potential to transform industries and improve lives. In essence, entrepreneurship driven by genuine problem-solving is the cornerstone of meaningful and lasting success.

### 3.2. Characteristics of Real Problems

Certainly, real problems are multifaceted and encompass a wide range of characteristics and implications. To further elaborate, here is a list that highlights the key attributes of real problems:

1. **Significance:** Real problems are not trivial; they are substantial challenges that have the potential to disrupt or hinder daily routines, operations, or objectives.
2. **Tangibility:** These problems manifest in concrete and observable ways, making their presence and impact palpable.
3. **Measurability:** Real problems can be quantified or assessed, allowing for the evaluation of their scope and severity.
4. **Influence:** They directly influence various aspects, such as the quality of life for individuals or the efficiency and profitability of businesses.
5. **Persistence:** Unlike transient issues, real problems persist over time, demanding attention and resolution.
6. **Universal Relevance:** Real problems often transcend specific demographics, industries, or geographical locations. They are shared challenges that can affect a broad spectrum of people or businesses.
7. **Emotional Engagement:** These problems evoke emotions and reactions, prompting individuals or organizations to seek solutions due to their practical and emotional significance.

Recognizing and addressing real problems is a fundamental aspect of entrepreneurship and problem-solving. Entrepreneurs who tackle these substantial issues with innovative solutions not only create value but also make a lasting impact on society and the business world.

### 3.3. Steps to Identify Real Problems

Identifying valid problems that require attention is critical to effective problem-solving and entrepreneurship. There are several ways to detect what problems are valid and need addressing:

- **Research and Observations.** You should conduct market research to identify pain points and unmet needs. Observe consumer behaviour and trends to understand emerging problems.
- **Empathy and User-Centric Approach.** Put yourself in the shoes of potential customers. Seek feedback and engage with the target audience to gain insights into their challenges.
- **Industry and Domain Expertise.** Develop knowledge and expertise in the industry or domain you wish to target. Understand the nuances and complexities of the field to identify relevant problems.
- **Collaborations and Networking.** Collaborate with industry professionals, mentors, and experts to gain diverse perspectives. Attend networking events and engage in discussions to discover common pain points.
- **Iterative Problem Refinement.** Continuously refine and validate the identified problem through feedback loops. Ensure the problem is well-defined, specific, and has market potential.

### 3.4. Real problems and opportunities for smart textiles

**Health Monitoring.** Some of the most important opportunities for smart textiles are in Health Monitoring. Smart textiles integrated with sensors and wearable technology can monitor vital signs, such as heart rate, body temperature, and respiration. This technology has enabled the development of health-monitoring garments that can track an individual's health in real-time, providing valuable data for healthcare professionals and individuals themselves.

**Sports Performance.** Smart textiles can be used to enhance athletic performance by providing real-time feedback on various metrics, such as body movement, muscle activity, and balance. Athletes can benefit from garments embedded with sensors and actuators that analyse their movements and provide personalized recommendations for technique improvement and injury prevention. Companies have capitalized on this opportunity by creating smart sportswear and training apparel.

**Safety and Protective equipment** present other business opportunities. Smart textiles have been utilized to address safety concerns in various industries. For instance, high-visibility garments with embedded LEDs enhance visibility and improve safety for workers in low-light conditions. Similarly, PPEs with integrated sensors can detect hazardous substances, monitor environmental conditions, or provide early warning alerts for workers in hazardous

environments. Other smart textiles, like thermo-regulating materials are suited for applications where dynamic thermal protection is needed.

**Fashion and Aesthetics.** Smart textiles have also found their way into the fashion industry, providing new possibilities for creative expression and functionality. For example, garments with embedded LEDs, flexible displays, or colour-changing properties can create unique visual effects and interactive designs. Companies have seized this opportunity by merging fashion with technology, introducing smart clothing collections that offer novel aesthetics and functionality.

The existing smart textile products still have significant problems that require solving, thus presenting business opportunities for researchers and new entrepreneurs.

For e-textiles, the most important problem yet to be solved is the full integration of electronics in textile materials. Other problems include the durability of the products, maintaining their functionality in different conditions throughout their life cycle, for example in humid conditions, including sweat or following several cycles of washing. Comfort characteristics are another issue, as many non-textile components, like the electronic ones or metallic yarns affect the comfort of the wearer. Sustainability is also a problem, cradle-to-cradle design and solutions for an efficient recycling process are yet to be addressed.

Not least, price still prohibits and limits the transition from niche to mainstream market.

Future possible solutions require multidisciplinary research, creating opportunities, especially for start-ups and spin-offs.

## 4. Understanding the market and customers

Developing a successful business model within smart textiles requires a robust foundation of knowledge and a deep understanding of the market and its denizens. To achieve this, conducting comprehensive research on both the market and the target customers is not just beneficial; it's absolutely essential.

Market research entails a multifaceted exploration, encompassing trends, demand dynamics, customer preferences, and buying behaviour. This meticulous process provides the raw data needed to make informed decisions. Every facet of the business, from product design to marketing strategy, hinges on the accuracy and relevance of this data.

The insights gleaned from market and customer research serve as the compass guiding the journey of smart textile entrepreneurs. These insights play pivotal roles in various aspects of business development:

1. **Value Proposition:** Understanding the unique needs and desires of the target customers enables crafting a compelling value proposition. This proposition should resonate with customers by addressing their pain points and aspirations.



2. **Product Design:** Armed with insights into customer preferences, entrepreneurs can refine product designs to align with market expectations. This ensures that smart textiles meet not just technological standards but also the practical needs and aesthetic tastes of the audience.
3. **Pricing Strategy:** Knowledge of what customers are willing to pay is crucial in setting a competitive yet profitable pricing strategy. It balances value perception with financial sustainability.
4. **Marketing Plan:** The research findings shape the contours of the marketing plan, defining the channels, messaging, and campaigns that will resonate most effectively with the target audience.

Furthermore, the market is a dynamic entity, constantly evolving. Therefore, continuous vigilance is imperative. Monitoring market trends and customer feedback is not a one-time activity but an ongoing commitment. It helps in identifying emerging trends, shifts in customer preferences, and potential disruptions in the industry.

In essence, success in the smart textiles business requires innovation in technology and a deep and unwavering commitment to understanding and serving the needs and desires of the market and its customers. The business model should be a dynamic framework that adapts to these insights, ensuring relevance and sustained growth in this ever-evolving landscape.

#### 4.1. Market research methods

Certainly, market research is a multifaceted endeavour, and various methods can be employed to gather valuable insights into the market and customer landscape. Here are some commonly used market research methods:

1. **Desk Research:** This method involves mining existing data and information from secondary sources. Researchers gather data from market reports, academic publications, industry statistics, and other readily available sources. Desk research provides a foundational understanding of market trends, competitors, and industry benchmarks.
2. **Surveys:** Surveys are an effective way to collect structured data from a broad audience. Researchers can design questionnaires to gather information on customer needs, preferences, buying behaviour, and demographic details. Online surveys, phone surveys, and in-person surveys are all viable options depending on the target audience.
3. **Focus Groups:** Organizing focus group discussions is a qualitative research method that brings together a small group of potential customers. These groups engage in open discussions facilitated by a moderator. Focus groups are particularly valuable for exploring in-depth insights on product features, design, pricing, and the emotional aspects of consumer decision-making.

4. **Interviews:** One-on-one interviews with customers provide an opportunity for more personalized and detailed insights. In interviews, researchers can delve deeper into individual experiences, preferences, and pain points. This method is particularly useful for uncovering nuanced information and understanding the "why" behind customer actions.
5. **Observational Research:** Observational research involves directly observing customer behaviour in natural settings. It can provide unfiltered insights into how customers interact with products or services. For instance, retailers may use this method to analyse customer shopping patterns in physical stores.
6. **Online Analytics:** For businesses operating in the digital realm, online analytics tools can offer valuable data. Website analytics, social media analytics, and user behaviour tracking can provide insights into customer interactions with online platforms.
7. **Competitor Analysis:** Studying competitors is a form of market research that helps businesses understand the competitive landscape. This involves analysing the products, pricing strategies, marketing tactics, and customer feedback of rival companies.
8. **Ethnographic Research:** Ethnography involves immersing researchers in the daily lives of customers to gain a deep understanding of their behaviour, needs, and cultural context. This method is often used in industries where cultural factors play a significant role.
9. **Secondary Data Analysis:** Researchers can also leverage existing datasets, such as government statistics or industry-specific databases, to gather relevant information about market trends, consumer behaviour, and economic indicators.

Each of these market research methods has its own strengths and limitations, and the choice of method should align with the specific research objectives and the nature of the target audience. A well-rounded market research approach often combines multiple methods to gather comprehensive insights that inform strategic decision-making.

## 4.2. Conducting a Competitor Analysis

In the pursuit of developing a successful business model, a thorough understanding of the competitive landscape is paramount. It serves as the foundation upon which strategic decisions are built, guiding the positioning of a product or service within the market. To achieve this understanding, a comprehensive competitor analysis is indispensable and should encompass the following key elements:

1. **Identifying Direct Competitors:** The analysis should begin by identifying direct competitors who offer similar products or services. These are businesses that target the same customer segments and fulfill similar needs.

2. **Market Share Assessment:** Understanding the market share of each competitor is crucial. It helps gauge their relative influence and market presence. It's also an indicator of customer preference.
3. **Pricing Strategy Examination:** Investigating the pricing strategies employed by competitors provides insights into pricing trends within the industry. It helps determine whether your product or service is competitively priced.
4. **Distribution Channels:** Analysing the distribution channels used by competitors reveals how they reach their target audience. This information is invaluable for devising an effective distribution strategy.
5. **Marketing Tactics Evaluation:** Scrutinizing the marketing tactics of competitors sheds light on their promotional efforts. What messaging do they use? What channels do they leverage? This helps identify best practices and potential gaps in your own marketing strategy.
6. **Strengths and Weaknesses Analysis:** Delving into the strengths and weaknesses of competitors offers a holistic view. Assess product features, customer service quality, brand reputation, and any other relevant factors. Identifying areas where competitors excel and where they fall short is critical.
7. **Opportunity and Threat Identification:** Beyond the strengths and weaknesses, the analysis should also pinpoint opportunities and threats in the market. Emerging trends, disruptive technologies, regulatory changes, or consumer behavior shifts can all pose opportunities or threats.

By conducting a comprehensive competitor analysis, you gain valuable insights that inform strategic decision-making. These insights can guide efforts to differentiate your product or service from the competition and create a competitive advantage within the market.

Differentiation strategies may involve various approaches, such as enhancing product features to meet unmet customer needs, offering superior customer service, or crafting a unique brand identity that resonates deeply with the target market. Ultimately, a well-executed competitor analysis is a cornerstone of effective business model development, setting the stage for sustainable success in a competitive landscape.

### 4.3. Analysing the strategies of the competitors

Four main aspects should be considered when analysing the strategies of the competitors.

1. Understand the products sold by the competitors by making Product Analysis. This analysis will evaluate features, quality, and innovation of the products or services by the competitors, as well as identify any unique selling propositions (USPs) or competitive differentiators competitors have.
2. Market Share and Positioning. Determine what is the market share and market position of the competitors. Analyse their brand image, reputation, and customer perception.

3. Understand how competitors establish prices and conduct their promotion.
4. Assess the pricing strategies and pricing models of the competitors and their efficiency. Analyse their promotional activities, advertising campaigns, and online presence.
5. Identify your competitive advantage by understanding the key strengths and weaknesses of the competitors and determine how your business can differentiate and position itself in the market.

### Part 3

At the end of the topic, include at least 1 reference for further reading in the box prepared to this aim. Further resources are also summarised at the end of the document.

#### Want to learn more about this topic?

In *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers* Alexander Osterwalder, Yves Pigneur you will find a visual framework for designing, analyzing, and innovating business models. The book offers practical tools and insights to help entrepreneurs and businesses create value, adapt to changing markets, and stay competitive.

## Summary

Understanding the market and customers lies at the heart of any successful business venture. It serves as the compass that guides entrepreneurs and companies toward creating a strong and compelling value proposition. Without this understanding, even the most innovative products or services may struggle to find their footing in the market.

One of the fundamental principles of business is that a product or service must address a real problem or need. It's not enough to have a great idea; it must have practical relevance to potential customers. If a product or service doesn't provide a solution to a genuine problem or fulfill a real need, it is destined to fail. This underscores the importance of understanding the market and customers' pain points.

Moreover, understanding the market and customer needs is not just about avoiding failure; it's also about optimizing resources and efforts. In the fast-paced world of business, wasted time and resources can be detrimental. When entrepreneurs are well-versed in what the market demands and what customers are seeking, they can allocate their resources efficiently, focusing on product development and marketing strategies that align with these needs.

However, simply meeting customer needs is not enough in a competitive landscape. The key to sustainable success is differentiation. Understanding the market allows businesses to identify gaps in the offerings of competitors and create unique value propositions. It enables entrepreneurs to tailor their products or services to stand out, whether through innovative features, superior quality, or exceptional customer service.

In essence, the journey of creating a successful value proposition begins with a deep understanding of the market and customers. This understanding ensures that entrepreneurs

are not only addressing real problems but also doing so in a way that resonates with their target audience. It guides the allocation of resources, prevents wasted efforts, and ultimately paves the way for differentiation and success in a competitive business environment. In today's dynamic and ever-evolving marketplace, these principles are more critical than ever, making market research and customer understanding indispensable components of any business strategy.

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<https://www.strategyzer.com/>

## Further resources

### Partnership



#### Project coordinator

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