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FEATURES OF DEVELOPING A DIGITAL PRODUCT CONCEPT USING A VALUE-BASED APPROACH

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Abstract. The *purpose* of this article is to conduct a comprehensive study of contemporary approaches to the formation of digital product concepts in marketing, with an emphasis on their advantages, disadvantages, and methodological features. Particular attention is paid to the theoretical and practical justification of the feasibility of transitioning to a value-oriented approach, which is considered as a means of improving the process of developing digital product concepts. The article proposes an integrated model that allows for the effective combination of existing value development tools and modern organizational and technological solutions for creating competitive digital solutions. *Methodology.* The article uses theoretical and methodological analysis of literary sources devoted to the concept of digital products and services, as well as a comparative review of the most common approaches to value creation in the digital environment. Particular attention is paid to analyzing the impact of organizational models, modern digital business processes, and technological solutions on the value design process. The proposed approach is based on a critical rethinking of existing theories and models (in particular, Value Proposition Canvas, Jobs-to-be-Done, Kano Model) combined with an analysis of the real practices of digital companies, which allows synthesizing our own integrated methodology for improving the concept of digital products. *Results.* Application of the proposed framework results in a comprehensive and iterative process for digital product concept development, which systematically integrates user needs, business model validation, and feature prioritization. The methodology enables IT companies to identify and prioritize features that maximize user satisfaction (as measured by the Kano model) while balancing resource constraints and market realities. The developed Integrated Canvas for Digital Product Value Definition allows for the creation of clear, actionable product concepts optimized for both user value and practical feasibility. The adaptability of the framework supports iterative refinement in response to new data or shifting organizational capabilities. *Practical implications.* The framework offers a structured pathway to minimize the risks associated with misalignment between product features, user expectations, and company resources. By deeply embedding user value through interdisciplinary techniques and continuous validation, IT companies can decrease time-to-market, lower the rate of product failures, and more efficiently allocate development resources. The approach also facilitates cross-functional collaboration and informed decision-making in fast-paced digital environments. *Value / originality.* The originality of this work lies in its integration of established methodologies–JTBD, VPC, and the Kano model–within a unified, actionable, and iterative canvas tailored for digital product development. By systematically balancing user-centric value creation with realistic assessments of economic and organizational constraints, this article provides a novel, comprehensive solution to one of the central challenges in digital marketing and product management. The framework offers significant theoretical and practical advances, supporting greater agility, innovation, and success in digital product development for IT companies.

Keywords: digital marketing, marketing of digital products, marketing of IT-companies, digital product concept, value-based marketing.

JEL Classification: M31

1. Introduction

The development of a digital product concept is a decisive phase that significantly influences its market success. Recent digital transformation trends and shifts in technology and business practices have made the topic especially relevant, increasing the demand for new methodological solutions. This study reassesses existing approaches and puts forward a value-based

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perspective, aiming to enhance concept formation through an integrated methodology. The article's purpose is to analyze current theoretical and practical models, justify the effectiveness of a value-oriented approach, and propose a framework for developing concepts that optimally balance user needs, business logic, and organizational capabilities. This research is based on a review of literature, comparative analysis of methodologies, and synthesis of popular conceptual frameworks such as Value Proposition Canvas, Jobs-to-be-Done, and the Kano Model. The material is presented in the following order: existing approaches are reviewed, their limitations and strengths are critically evaluated, an integrated method is developed, and practical recommendations for business and directions for future research are provided.

2. Analysis of Existing Approaches to Digital Product Concept Development

Traditionally, IT companies have relied on the Technology Push approach, in which product development begins with a new technology, followed by the search for potential applications and markets for that technology. This approach is based on the belief that technological innovations inherently generate market demand. However, research indicates that a purely technology-driven approach is associated with higher failure risks and longer time-to-market compared to alternative strategies. An alternative is the Market Pull approach, which is based on identifying market needs through research and developing products to satisfy those identified needs. Companies employing this approach first conduct market research, determine customer problems, and only then develop technological solutions that correspond to existing needs (Innovation.World).

Process-oriented approaches focus on structuring and formalizing the product development process. The Stage-Gate methodology (TCGen) divides product development into sequential stages with control points between them to assess the feasibility of moving to the next stage. Agile Product Development (Sokolova, 2024) offers an iterative approach with short sprints and continuous customer feedback. The Lean Startup model (Wikipedia) is based on the "build–measure–learn" cycle, emphasizing the development of a minimum viable product to test hypotheses with minimal effort. These methodologies define the sequence of actions and control points but do not always provide clear criteria for determining what exactly should be built.

The Data-Driven Product Development approach (Lucky et al., 2024) is based on the analysis of user behavior and market trends to support evidence-based decision-making. This approach allows organizations to quickly adapt to market needs on the basis of empirical insights. However, it faces significant limitations in the case of new products, where historical data is not yet available.

User-oriented approaches emphasize understanding and involving end-users in the development process. User-Centered Design (Tanovic, Whitman, 2024) treats real users as the central element of the design process, involving direct communication at key stages. The persona-based approach relies on the creation of detailed portraits of typical users to tailor the product to specific segments. Scenario-Based Design (Lau, 2024) employs the description of concrete product-use situations to understand user interactions. These approaches ensure a deep understanding of users but do not always offer clear mechanisms for translating this understanding into specific product decisions and functionality prioritization.

The Problem-Driven Innovation approach focuses on identifying and understanding specific problems or challenges faced by users. This approach often yields more meaningful results compared to development solely oriented toward market needs. However, focusing exclusively on problem-solving may limit opportunities for creating additional value through emotional, social, or aesthetic aspects of the product (Reyes, 2024).

An analysis of existing approaches indicates that each possesses certain advantages but also inherent limitations. In this context, the value-based approach to digital product concept development becomes particularly relevant. It treats user needs and desires as the primary criteria for making product decisions. Product value encompasses a much broader spectrum of categories than merely solving user problems, including functional benefits, economic feasibility, emotional experience, social prestige, usability, and aesthetic qualities. Value is understood as a balance between the benefits received by the user and the costs (financial, temporal, and effort-related) incurred. The multidimensional and subjective nature of value makes it an effective criterion for product concept formation, as it integrates various aspects of the user experience into a unified focus.

3. Value-Based Approach as an Integrative Methodology for Digital Product Concept Development

The value-based approach is founded on the synthesis of several complementary methodological instruments. The Value Proposition Canvas (B2B International) provides a structured framework for identifying the alignment between the product's value proposition and the customer profile. The Jobs-to-be-Done (JTBD) Theory (ProductPlan) enables a deeper understanding of user motivations through the lens of the "job" users are trying to accomplish. The Kano Model (Sauerwein et al. 1996) offers a mechanism for

categorizing and prioritizing product features based on their impact on user satisfaction. The integration of these instruments facilitates the creation of a comprehensive methodology that combines deep user understanding, structured value design, and evidence-based functionality prioritization.

However, even the most sophisticated understanding of user value does not guarantee market success if business realities and organizational capabilities are not considered. A product must not only generate value for users but also be economically viable for the company and realistic to implement within the context of existing competencies and resources. This necessitates extending the value-based approach with additional stages of business model validation and resource capability assessment.

In light of these considerations, an Integrated Digital Product Value Definition Canvas has been developed – a comprehensive methodology for forming a digital product concept that synthesizes the advantages of value-based instruments into a coherent, sequential process. This process incorporates additional stages of business model validation and resource evaluation. The proposed methodology aims to ensure that the digital product concept not only creates genuine user value but is also economically viable and feasible for implementation within the specific context of an IT company. A detailed description of this methodology and its constituent stages is presented below.

The formation of a digital product concept through the lens of user value requires a systematic approach that combines various methodological instruments into a single coherent process. The developed integrated canvas represents an enhanced comprehensive methodology that synthesizes the advantages of the Jobs-to-be-Done theory, Value Proposition Canvas, and the Kano model, with additional validation stages aimed at obtaining a clear digital product concept featuring prioritized functions for launching a Minimum Viable Product (MVP).

1. Identification of the Target User and Jobs-to-be-Done.

The first step in forming a digital product concept is a deep understanding of the target user and the context in which the product will be used. This stage is based on the integration of the User Story approach (Visual Paradigm) with the Jobs-to-be-Done theory, which allows combining a focus on a specific user with a systematic understanding of their needs and expectations.

The traditional User Story approach, used in agile development, defines user requirements through the statement format: "As a [user], I want [capability], so that [benefit]." It provides a clear description of functional aspects of a product, focusing on a specific user or role. However, in practice, this method has certain limitations. First, it often narrows the team's focus to an isolated behavioral scenario without considering the broader context in which the user's need arises. Second, User Stories tend to emphasize desired functionality rather than the underlying motivations or factors driving it. In other words, they answer the question "what needs to be done" but do not provide sufficient insight into "why the user needs it."

Therefore, it is advisable to extend the User Story with elements of the Jobs-to-be-Done theory. JTBD allows moving beyond narrow user scenarios and analyzing user behavior through the lens of the "job" the user is trying to perform – that is, the progress they seek to achieve within a specific context. Unlike User Stories, which capture the actions of a particular user, the JTBD approach focuses on the functional, emotional, and social dimensions of the task that the user "hires" the product to perform.

In the proposed methodology, the integration of these two approaches is achieved through the following format:

"As a [user], when [situation], I want [goal], so that I can [benefit]."

This construction preserves the user-specific orientation inherent in the User Story while expanding the analytical context in line with the JTBD philosophy. It helps avoid a purely formal approach to requirements gathering and promotes a deeper understanding of user needs, constraints, and motivations that shape how the product's value is perceived.

Thus, by combining the User Story and JTBD, this stage of the methodology serves a dual purpose: on one hand, it maintains focus on a specific user, and on the other, it creates a foundation for forming a comprehensive list of product features that genuinely support users in performing their "jobs" and generate value within a broader behavioral and motivational context.

The Jobs-to-be-Done theory emphasizes a deeper understanding of user context and motivation. Its central idea is that users do not buy products– they "hire" them to accomplish specific jobs in their lives or businesses. A job represents the progress a user seeks to achieve under certain circumstances.

Each job has three dimensions:

– The functional dimension describes the practical task to be completed.
– The emotional dimension reflects how the user wants to feel during and after performing the job.
– The social dimension determines how the user wants to be perceived by others.

For each identified job, it is necessary to define the desired outcomes, which represent specific success metrics from the user's perspective. These outcomes should be measurable and expressed in terms of execution speed, result accuracy, effort reduction, risk minimization, or quality improvement.

2. Building the User Profile in the Value Proposition Canvas.

After identifying the list of target jobs, the next step involves detailing the user profile using the Value Proposition Canvas (VPC). The VPC is an analytical tool composed of two interrelated components:

– The Customer Profile, which describes a specific consumer segment through three key elements – customer jobs, customer pains (needs), and customer gains.

– The Value Map, which defines how the product creates value for the user. The Value Map consists of three interconnected components, each corresponding to the elements of the customer profile – product functions, pain relievers, and gain creators.

The first element of the customer profile – Customer Jobs – integrates the target job identified in the previous JTBD step into the "Customer Jobs" section of the VPC. It is important to note that jobs include not only functional tasks (e.g., "process a tax declaration") but also social aspects (e.g., "appear professional in front of clients") and emotional needs (e.g., "feel confident in financial decisions"). A job may be routine (a regularly repeated activity) or situational (arising only under specific circumstances).

The second element – Customer Pains – describes the negative emotions, undesired costs, and risks users experience before, during, or after completing a job. When integrated with JTBD, pains are identified as struggle points associated with performing the target job's activities. These are aspects of job execution that require excessive time, effort, or cost, or that create cognitive strain for users. It is critically important to ask users which pains are unacceptable, as these drive the strongest motivation to seek solutions.

Customer pains can be categorized as:

– Functional (the product does not perform as expected);

– Financial (the solution is too expensive);

– Emotional (the product causes stress or frustration);

– Social (the product negatively affects how others perceive the user).

The third element – Customer Gains – reflects the advantages that users expect, desire, or will be pleasantly surprised by. In the context of JTBD, gains are defined as the desired outcomes or success results that users aim to achieve while performing their "jobs." They represent the progress users want to make in accomplishing their tasks. Gains can be essential (without them the product loses its purpose), expected (basic benefits users assume they will receive), or desired (those that exceed expectations and evoke a strong positive emotional response). At this stage, it is also important to identify indifferent gains – those users are unaware of or have not considered, but which may signal opportunities to convert latent value into explicit value.

After completing all three components of the Customer Profile, prioritization must be conducted. Identify the most critical pains – those causing the strongest negative reactions and deemed unacceptable to users. Similarly, determine the most desired gains – the outcomes users most strongly aspire to achieve. This prioritization is crucial, as the most important pains and gains will serve as the foundation for developing the Value Map in the next stage.

3. Development of the Value Map in the Value Proposition Canvas.

The third stage focuses on designing the product's value proposition through the creation of the Value Map, which defines how the product generates value for the user. The Value Map consists of three interrelated components, each corresponding to elements of the Customer Profile.

The first component – Products & Services – represents the list of all offerings around which the value proposition is built. These may include physical goods, digital products, online services, consulting offerings, or a combination of various types. It is important to note that products and services alone do not create value – they are merely the means for alleviating pains and creating gains for users. At this stage, all potential products and services should be listed without being limited by existing solutions. Each should then be ranked according to its importance to the user, based on how critical it is for accomplishing the target job.

The second component – Pain Relievers – describes how products and services eliminate or reduce user pains. In the context of integration with JTBD, pain relievers represent features that address "struggle moments" associated with undesirable pains during task performance, thereby improving job efficiency. For each identified pain in the user profile, a specific method for its mitigation must be defined. Pain relievers may operate at varying levels of intensity: completely eliminating the pain, significantly reducing its severity, or making it more tolerable for the user. The key principle is to identify the most effective way to resolve or adapt to the circumstances that create struggle moments while minimizing the cost structure of the solution.

The third component – Gain Creators – defines how products and services create gains that users expect, desire, or will be surprised by. Within the JTBD integration framework, gain creators are features that remove struggle moments related to achieving desired success outcomes, thereby enhancing job efficiency. It is essential to distinguish between types of gain creators: those that deliver essential gains (without which the product would not even be considered), those that generate expected gains (basic satisfaction level), and those that provide desired gains (exceed expectations and evoke strong positive emotions).

When developing the Value Map, achieving fit between the Value Map and the Customer Profile is critically important. Each Pain Reliever must correspond directly to a specific Pain from the Customer Profile, and each Gain Creator must generate a corresponding Gain expected by the user. It is unacceptable to include elements in the Value Map that do not align with any component of the Customer Profile, as they fail to create value for the target segment.

4. Validation of Product–Value Fit.

The fourth stage focuses on verifying the alignment between the developed Value Map and the Customer Profile across three sequential levels. This iterative validation ensures that the product truly creates the intended user value and has potential for market success.

The first validation level – Problem–Solution Fit – occurs at the conceptual stage. Through interviews with potential customers, it is necessary to confirm that they are genuinely interested in the jobs, pains, and gains addressed by your value proposition. Key validation questions include: Do users actually perform the identified job? Are the pains you've identified relevant and critical for them? Are the gains you plan to deliver truly important for the target audience? This stage does not require a working product – conceptual presentations via prototypes, mockups, or detailed descriptions are sufficient.

The second validation level – Product–Market Fit – takes place at the market level. Testing and market evidence should demonstrate that the solution effectively addresses consumer needs and gains traction in the market. At this stage, a Minimum Viable Product (MVP) is developed – a limited-functionality version sufficient to test key hypotheses about value creation. The MVP enables the collection of real user feedback through product usage rather than hypothetical judgments. Success criteria at this level include adoption rate, retention rate, Net Promoter Score (NPS), and qualitative user feedback.

The third validation level will be examined in subsequent stages after feature prioritization using the Kano Model, as it requires a detailed understanding of the product's functional composition.

5. Categorization and Prioritization of Features Using the Kano Model.

The fifth stage uses the Kano Model to categorize and prioritize product features based on their impact on user satisfaction. Developed by Japanese researcher Noriaki Kano in the 1980s, the model is founded on the understanding that different product attributes influence customer satisfaction in nonlinear ways. Some features are basic expectations, others correlate directly with satisfaction, and some generate delight.

The Kano Model classifies product features into five categories:

– Must-Be (basic or mandatory features) – functions that users take for granted. Their absence causes strong dissatisfaction, but their presence does not increase satisfaction since users see them as given. For example, for a mobile banking app, the ability to check one's account balance is a basic feature.

– Performance (one-dimensional features) – functions that directly correlate with user satisfaction: the better they are implemented, the higher the satisfaction, and vice versa. In the same banking app, transaction speed would be a performance feature.

– Attractive (excitement or delight features) – functions that exceed user expectations and create strong positive emotions. Their absence does not cause dissatisfaction because users do not expect them. An example is personalized financial analytics with spending optimization recommendations.

– Indifferent features – those whose presence or absence does not affect user satisfaction.

– Reverse features – those that may cause dissatisfaction among certain user segments if present.

To conduct Kano analysis, a special questionnaire is used, consisting of paired questions for each product feature. When integrated with JTBD, traditional Kano questions are adapted to focus on job completion. Instead of asking, "How do you feel if the product has feature X?", the question becomes, "How do you feel if you are able to complete [the job to be done]?" The functional question assesses the user's reaction to the presence of a feature, while the dysfunctional question – "How do you feel if you cannot complete [the job to be done]?" – evaluates the reaction to its absence. For each question, respondents select one of five answers: I like it, I expect it, I am neutral, I can tolerate it, or I dislike it.

Based on the combination of answers to the functional and dysfunctional questions, each feature is categorized according to the Kano evaluation table. After surveying a sufficient number of respondents (at least 30 per user segment is recommended), the frequency of classification into each category is calculated. The feature is then assigned to the category with the highest frequency.

The results of the Kano analysis are presented in a feature categorization matrix, showing which category each product feature belongs to. Based on this matrix, feature prioritization is performed:

1. Must-Be features are implemented first, as their absence makes the product appear incomplete.

2. Next, the focus shifts to Performance features with the greatest impact on user satisfaction, determined by the importance of the corresponding job to users.

3. Finally, Attractive features are added to create competitive differentiation and a "wow effect."

4. Indifferent features are excluded from development or postponed for future iterations.

5. Reverse features are completely removed from the product concept.

It is important to note that Kano categorization is not static. User expectations and needs evolve over time – features that were once exciting may eventually become basic. Therefore, regular Kano analyses are necessary to track changes in user requirements and adapt the product accordingly.

4. Conclusions

Based on a comprehensive competency analysis, a decision is made regarding the adequacy of development resources. If critical gaps can be closed within acceptable timeframes and budget constraints, the product moves forward to the development stage. If the gaps are too significant or require disproportionate investments to close, the product concept may be revised to reduce competency requirements – for example, by simplifying functionality or leveraging off-the-shelf solutions instead of building everything from scratch. In extreme cases, if development resource alignment cannot be achieved, the project may be halted or postponed until the organization acquires the necessary competencies. It is important to emphasize that the proposed Integrated Canvas for Defining Digital Product Value is not a linear process but an iterative framework. Information obtained at later stages may necessitate returning to earlier steps for refinement and adjustment. For instance, business model validation results may reveal the need to revise product functionality to improve unit economics, which would require revisiting the Kano prioritization stage. Similarly, identifying critical competency gaps may lead to rethinking the value proposition to align it with the organization's actual capabilities.

This methodology provides a comprehensive approach to digital product concept development that integrates user understanding (through personas and JTBD), structured value design (via VPC), evidence-based feature prioritization (through the Kano model), and realistic implementation assessment (through business model and development resource validation). Such a systematic approach enables IT companies to design digital products that not only deliver genuine value to users but are also economically viable and feasible within the organization's existing competencies and resources.

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