# Chapter 24
# Value Creation and Business Planning


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The development of a new product or service is part of a value creation process. The subject of this chapter is the conceptual design and practical implementation of this process. We show how the configuration of a firm's so-called business model is determined by the multiple value dimensions of the product or service and, conversely, which factors of the business model may affect the development of the product. We thereby highlight the economic significance of product development and, in particular, its strategic relevance for business planning.

## 24.1 Value Creation and Competitive Advantage

The conceptual design of a value creation process first of all requires a working definition of value creation, i.e., what it refers to and how it can be measured. According to BESANKO et al., the value ($V$) added by a product or service is determined, on the one hand, by the perceived benefit of the product from the point of view of the customer for whom it is ultimately intended [BDSS-2007]. In the simplest case, this perceived benefit ($B$) can be valued in monetary terms, and the value expresses the customer's maximum willingness to pay for the product—$B$ is then the amount of money the customer would bid for the product in an auction, for example. On the other hand, value-added expresses the increase in value realized by the provider of the product or service. The reference point for the increase in value is the unit cost ($C$) of creating the product or service, so that the total value-added results from the difference between the perceived benefit for the consumer and the unit cost for the producer:

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$$V = B - C.$$

Although the value, $V$, is provided by the producer, it can only be realized in combination with the consumer. The sales price ($P$) of the product or service thereby divides the value-added between the consumer and the producer:

$$V = (B - P) + (P - C).$$

The first term on the right-hand side represents the so-called consumer surplus—this is the value that the consumer experiences when buying the product. It is not the price alone that determines the purchase, but the consumer surplus made possible by a price, which is below the perceived benefit of the good or service. The second term on the right-hand side is the producer's surplus, which remains with the manufacturer after the sale of the product. In order to achieve a competitive advantage on the market in the long term, a company must be able to maintain its position on the market by means of a competitive producer's surplus, on the one hand, and on the other hand, it must attract customers with a competitive consumer surplus. Price setting is, therefore, of strategic importance, as it determines the distribution of value-added between the two surpluses. However, in order to be able to adequately secure both surpluses at the same time, the competitive advantage with regard to rival firms in the market requires a sufficiently high added value, $V$, overall.

PORTER [Port-2004] has identified two generic strategies to secure the competitive advantage, which are based on the two boundaries of value creation, $B$ and $C$. At the upper end, the firm can strive for performance leadership by trying to distinguish itself from the competition by means of a differentiation strategy based on a higher product benefit $B$. At the lower end, the firm can try to lower $C$ and strive for cost leadership through new production processes.

PORTER warns against pursuing both generic strategies at the same time, as firms may easily get stuck between both competitive goals and thereby miss the competitive edge. However, recent approaches, for example by KIM and MAUBORGNE, criticize this view and show how firms can simultaneously realize approaches for increasing $B$ and decreasing $C$ by taking a multidimensional perspective, thereby pursuing what they refer to as a *blue ocean strategy*[1] [KiMa-2005]. With the help of a customer utility matrix, as in Fig. 24.1, KIM and MAUBORGNE illustrate how multifaceted consumer benefits can be conceived.

The customer utility matrix distinguishes between six differentiable levels of customer utility and six different phases of buyer experience. As a consequence, 36 different approaches can be identified to generate customer benefit ($B$). The example in Fig. 24.1 illustrates how customer benefit can be addressed in 14 different ways with a single product.

[1] A strategy for discovering, creating and subsequently introducing products into previously untouched markets ("blue ocean"), where the firm can more easily become a market leader than in markets already occupied by competitors or even saturated and where competition is likely to be aggressive ("red ocean").

The six stages of the Buyer Experience Cycle

| The six levels of Customer Utility | 1. Purchase | 2. Delivery | 3. Use | 4. Supplements | 5. Maintenance | 6. Disposal |
|---|---|---|---|---|---|---|
| Customer Productivity | | | ✓ | ✓ | | |
| Simplicity | ✓ | | | | ✓ | ✓ |
| Convenience | | ✓ | | ✓ | | |
| Risk | | | ✓ | | | ✓ |
| Fun and Image | ✓ | | ✓ | | | |
| Environmental friendliness | | | ✓ | | ✓ | ✓ |

**Fig. 24.1** The customer utility matrix of KIM and MAUBORGNE [KiMa-2005]

For the development of the product, the definition of total value creation, *B*—*C*, highlights the potential of optimizing the linkage between customer orientation (*B*) and technical implementation (*C*), as value creation can only be expanded, if *B* and *C* can be pushed in opposite directions. The existential importance of a competitive advantage further emphasizes the relevance of strategic pricing, i.e., setting the price to divide created value optimally into a consumer and a producer surplus. In contrast. the simpler procedure of cost-plus pricing, which is often used in practice, focuses exclusively on the producer surplus, thereby neglecting all dimensions of customer utility and, hence, the potential of value creation.

## 24.2 Opportunities for Value Creation

Value creation is not realized merely by the provision of a product or service. A potential customer must also perceive added value and be willing to pay for it. According to DRUCKER, the opportunity to create value only exists, because an entrepreneur recognizes this possibility of creating such added value with a product or service [Druc-2006].

In a dynamic and interactive society, opportunities for value creation exist always and everywhere. DRUCKER distinguishes between seven distinct sources for innovative opportunities. Within an industry or branch, they arise by unexpected positive or negative events, by different perceptions of the market participants, by process requirements within a value creation process, or also by changes of the market structure. Outside individual industries, i.e., at the societal level, opportunities arise from demographic changes, changes in perception and, of course, new knowledge. These seven sources are continuously present and operating, i.e., they constantly provide new opportunities for value creation in a modern, changing society. Being able to recognize them systematically, not just by chance, characterizes the ability of an entrepreneur [Druc-2006].

This ability can be learned because it is primarily based on a certain perspective that can be acquired. NALEBUFF and AYRES demonstrate how simple questioning techniques can be used to change one's perspective and reveal opportunities. Problems thereby become opportunities [NaAy-2003]. Crises, which are typically characterized by the general inability of the decision-makers to act, also offer opportunities for value creation, especially for proactive decision-makers such as entrepreneurs. In the more popular literature, the entrepreneurial way out of a crisis is often referred to as the "MacGyver effect." However, the same effect can also be observed in other cultures as well. In the modern Chinese language, for example, the ideogram for the word "crisis" consists of two signs, 危機, where the first stands for "danger" and the second for "opportunity."

In a dynamic society, opportunities are not available indefinitely. Since they depend on the value perceptions of customers, they may disappear just as quickly as they arise. SHANE and ECKARDT, therefore, speak of windows of opportunity that open and close again, depending on the elements the opportunities are composed of and the changing environment [ShEc-2005]. Entrepreneurial action, therefore, proceeds under time pressure, since the whole process of exploiting an opportunity for value creation with a new product or service must fit into the time window. Indeed, in his analysis of over 200 startups, GROSS finds that for almost half of the businesses the "time to market" was the most important success factor [Gros-2017].

Recognizing opportunities at all is, however, only the first step towards exploitation. With the diversity of possible offers, it is also important to choose the right opportunity, because the implementation requires resources such as time, effort, and often money. For the choice between alternative opportunities, they must be assessable and comparable. This requires calculating the total benefit or return that the entrepreneur can achieve with their implementation. The opportunity analysis requires initial customer and market information, with which one can at least roughly estimate which opportunity is most suitable in order to be pursued further. In order to make quick decisions within a limited time frame, WEINSTEIN recommends so-called Guesstimation techniques [Wein-2012], where calculated estimates are derived from plausible, arguable assumptions. These can also be learned and practiced, thereby giving the experienced entrepreneur a time advantage for implementation.

## 24.3 The Business Model

For a firm, the implementation of an opportunity for value creation is a multi-stage process, which comprises the creation, delivery, and capture of value. How this process is designed and how it takes place logically is described by the so-called business model. OSTERWALDER and PIGNEUR identify nine core components of a business model with which the logic of the value creation process in any industry can be characterized [OsPi-2010]. In their business model canvas, shown in Fig. 24.2., the nine components are arranged in an intuitive and memorable way, which not

<table>
<tr>
<td rowspan="2">Partners<br><br>Who are the most important partners for value creation?</td>
<td>Activities<br><br>Which activities for value creation are required?</td>
<td rowspan="2">Value Proposition<br><br>What value is provided?<br><br>What problem is solved?<br><br>Which needs are satisfied?<br><br>Which goods or services are offered?</td>
<td>Customer Relation-ships<br>What is the relationship with each customer segment?</td>
<td rowspan="2">Customer Segments<br><br>For whom is value created?</td>
</tr>
<tr>
<td>Resources<br><br>Which main resources for value creation are required?</td>
<td>Distribution Channels<br><br>Über welche Kanäle werden die Abnehmer erreicht?</td>
</tr>
<tr>
<td colspan="2">Cost Structure<br><br>Which are the most important costs?<br><br>Which activities/resources create the highest costs?</td>
<td colspan="3">Revenue Streams<br><br>Which values are being paid for?<br>How are payments made?<br>What are the relative shares of of individual revenue streams?</td>
</tr>
</table>

**Fig. 24.2** The business model canvas of OSTERWALDER and PIGNEUR [OsPi-2010]

only supports business model design but also the communication with potential stakeholders of the venture.

Central to the business model is the firm's value proposition, which describes the needs that are satisfied and the values that are delivered by the offered product or service. The value proposition emphasizes that the products or services which a firm offers are only a means to an end, i.e., they serve to create value, but do not characterize value directly themselves. As we have argued above, their value is determined by the benefit that a customer attaches to them. For the acknowledgement of the value proposition, the relevant customer segments must, therefore, be identified, i.e., all customer segments, which in any way draw a consumer surplus from the proposed value. In order to ensure the delivery of value to the designated consumers, customer relationships must be established and distribution channels must be organized. The interaction of these components, shown on the right-hand side of Fig. 24.2, characterizes the "front stage" of the business model.

The left-hand side of Fig. 24.2 characterizes the corresponding "backstage" of the business model. The product or service, on which the value proposition is based, must be produced by the firm. This requires its own key resources, specific activities within the firm, and mostly also business relations with external partners such as suppliers. How well front- and backstage of the business model operate together determines the profitability of the venture, given by the difference between the revenues generated with the sold products and services and the costs incurred by their production. This is captured by the two boxes at the bottom of Fig. 24.2.

OSTERWALDER and PIGEUR'S nine core components of the business model, however, are only the building blocks of the business model. The logic of the value

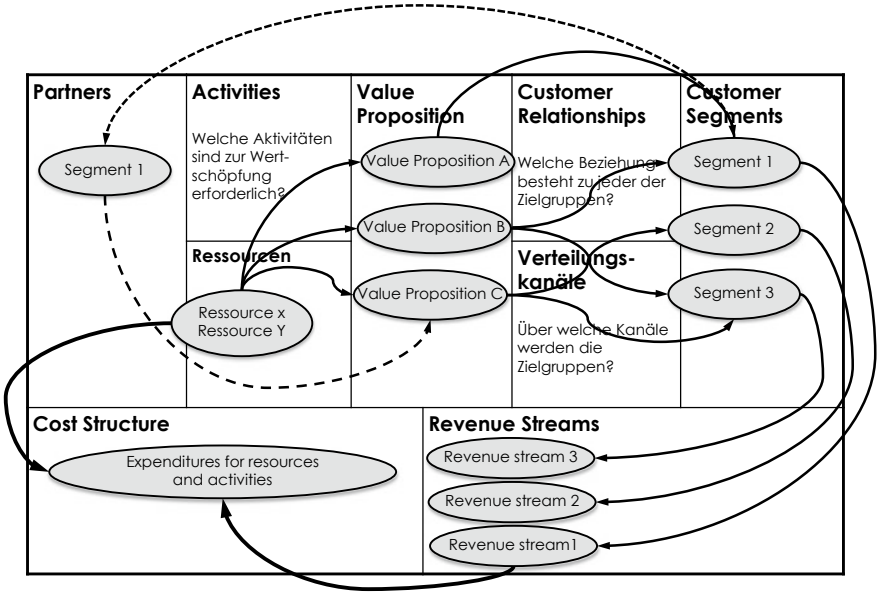


**Fig. 24.3** The logic of the value creation process

creation process of a specific firm results from the way in which these components interact. For simple business models, the logic is evident simply from the arrangement of the components in Fig. 24.2. In contrast, for more complex models, with multiple value creation approaches or different target groups, the interaction of the components can be more demanding, as the example in Fig. 24.3 illustrates.

The center box of Fig. 24.3 shows three different value propositions, *A*, *B,* and *C*, which are provided by the firm by utilizing two key resources, *X* and *Y*, that the firm commands. The value propositions are directed towards different target groups. Specifically, value proposition *A* focuses only on target group 1, while value creation *B* addresses target groups 1 and 3, and value proposition *C* addresses target groups 2 and 3. Hence, target group 2 is addressed by value proposition *C* alone, while target groups 1 and 3 are each attracted by two different value propositions. These connections are essential for the entire value creation approach, because, as Fig. 24.3 shows, each target group generates a different revenue stream. A value proposition that does not reach a target group is meaningless for the business model, and a target group that is not addressed by any value proposition is irrelevant because it does not generate any revenue stream. The cumulated revenue streams can then be put in relation to the costs for the resources and activities used. In principle, revenues and expenditures can be of a monetary or non-monetary nature. This distinction is particularly relevant if the firm is not only geared to maximizing profits but also wants to generate social value. However, the business model can only be regarded as economically self-sustainable, if the total monetary revenues cover at least the expenditures for the creation and delivery of value.

An important insight from this business model representation in Fig. 24.3 with its distinct causal relations is that total revenues result as the sum of the individual revenue streams generated by different target groups with different value creation approaches. How new value propositions can be created, even with existing products, has already been discussed above in connection with the customer utility matrix in Fig. 24.1. New resources or activities may be required, but this is not necessarily always the case. For example, the internet trading company Amazon needs enormous computing capacities to cope, in particular, with its Christmas business, but these resources are not required for business during the rest of the year. In the middle of the 1990s, the company, therefore, began leasing storage and computing capacity to software development firms in order to generate new revenue streams. Amazon also markets its perfected logistic infrastructure to other sellers thereby allowing them access to the entire Amazon logistics without having to sell directly via Amazon [OsPi-2010].

The importance of an individual target group for the firm's business model cannot be assessed from its associated revenue stream alone. Suppose, for the example case illustrated in Fig. 24.3, that revenue stream 1, generated by target group 1 is so low that it cannot even cover the expenditures for value proposition A. For cost reasons, the firm could, therefore, be inclined to dispense with target group 1 and eliminate the associated expenditures. However, this would be fatal for the entire business model, because target group 1 not only serves as a customer segment but also, as Fig. 24.3 shows, as a partner for the provision of value proposition C, which may be crucial to attracting target groups 2 and 3. To dispense with target group 1 could, therefore, mean also losing target groups 2 and 3.

For more complex value creation processes with multiple value propositions and different target groups, the graphical representation within a single business model canvas as in Fig. 24.3 quickly becomes confusing. A clearer picture can be obtained by presenting the individual value creation approaches in separate modules. By then showing where and how the modules are connected, their interdependence can be highlighted more clearly. As an example, consider Fig. 24.4, where the three value propositions *A*, *B*, and *C* from Fig. 24.3 are characterized by two separate modules. The left module shows the value propositions *A* and *B*, directed towards target groups 1 and 3. The right module shows value proposition *C*, offered to target groups 2 and 3. Since the value creation process *C* on the right is dependent on target group 1 as a partner, it is logically behind value creation processes *A* and *B* on the left. This dependency is characterized by the upper dashed arrow, which indicates that target group 1 changes its role, becoming the firm's partner for the realization of value proposition *C*. This representation also reveals the importance of the customer relationship with target group 1, reflected in the expenditures in the module on the left. Finally, the lower dashed arrow indicates that revenue streams 2 and 3 in the module on the right subsidize the value creation processes of the module on the left, in order to ensure the economic self-sustainability of the complete business model.

The internet search engine Google, for example, offers web surfers internet searches free of charge. However, Google does not generate any revenue streams through this target group, which is now estimated at over one billion users. Instead,

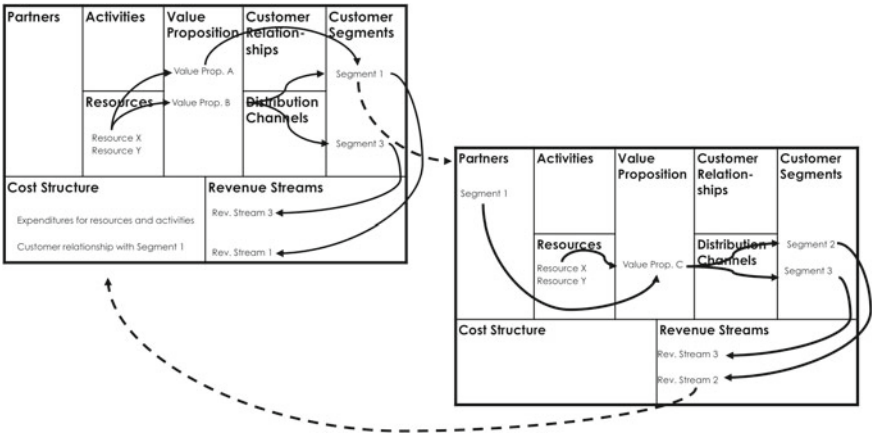


**Fig. 24.4** The interaction of multiple value creation approaches

the company utilizes this target group as a valuable partner or resource for a second value proposition, i.e., targeted advertising, which is offered to commercial firms. Through this target group, Google generates enormous revenue streams, which easily subsidize the complete search platform. If Google were to neglect the value proposition of unlimited web search and thereby lose its attractiveness for web searchers, the value proposition for the advertising firms would collapse like a house of cards. It is therefore understandable that Google has expanded its range of value propositions and its target groups over the years with new business ideas.

The profitability of a firm is largely determined by the structure of its value creation processes—how many processes are pursued and how do they relate to one another? Do they stand side by side, i.e., with additive revenue streams, or do they interact with complementary revenue streams? Just as decisive is the selection of the target groups and the corresponding design of the value proposition. The contested market for video game consoles provides a vivid example of this. Sony and Microsoft pursued similar business models with their PSP and Xbox game consoles [OsPi-2010]. As their contested customer segment, both targeted young, mostly male players with preferences for technically sophisticated game consoles. With technological development as a significant cost driver in this value creation process, it became difficult for both companies to cover their costs with revenues from console sales. Indeed, the main profits were achieved with a further value proposition directed towards independent game developers. Since players are the target group for game developers, Sony and Microsoft utilized their console users as a resource for the value proposition offered to developers, with license revenues ultimately subsidizing their business of game consoles. Conversely, since the attractiveness of consoles depends on the games that can be played on them, game developers were also an important partner for the value proposition directed towards console buyers.

In 2006, the video game and console manufacturer Nintendo used the same business model for its new game console Wii but changed the components of the

business model. Instead of the traditional customer segment of hard-core gamers, Nintendo focused on the significantly larger group of casual players of all age groups. Accordingly, the value proposition of the game console was also conceived for this group. Instead of costly technical perfection, a new and simple movement technology was introduced, whereby the Wii console with its new group games offered group fun and was moved from the basement into the living room. Through the new and larger target group, on the one hand, and the cheaper technology, on the other hand, Nintendo set itself apart from the competition and succeeded in implementing a so-called *Blue Ocean strategy* with its Wii [KiMa-2005].[2]

## 24.4 Business Planning

The business model is a didactically simple, but strategically very important design tool because it shows different starting points for designing and shaping the value creation process, from the creation over the delivery to the capture of value. The logic, with which the different components of the business model interact, shows clearly how the actual product is a central, integrative component of an entire economic process. The business model is thus the basic framework on which the entire operative economic business is based. The concrete design of this business is the subject of the so-called *business plan*.

For a potential financier, the most important components of the business plan can be inferred directly from the business model. The business model schema of Fig. 24.2 clearly shows the relationships. The product or service is the basis of the value proposition. The market and potential customers are captured in the customer segments. Marketing describes which distribution channels are to be used and how customer relationships are to be established. The founding team with all its core competencies makes up the key resources, and how value creation is achieved is determined by activity analysis, which also defines the role of partners (such as suppliers and intermediaries). Finally, the figures in the financial plan are derived from the detailed description of revenues and costs. During the entire design process—from the product idea to the business model and the business plan—the analytical approach remains the same, only the level of detail increases as the venture takes shape.

However, business planning is not only suitable as an economic design approach, but it is also a valuable evaluation tool. At the end of each design process, the comparison of expenditures and revenues reveals whether the business idea is economically viable at all. If it is not profitable, it should not be introduced to the market, at least not in its present form. A modified product or a modified business idea results in a new design approach, which must also be reevaluated, optimally with a new business

[2]Just as opportunity windows are open only for limited periods, blue oceans also turn red over time, i.e., when competitors enter the market to gain a share of the profits. With the other console manufacturers now also offering their own motion technologies, Nintendo discontinued the Wii console at the end of 2013.

plan. This, of course, requires additional effort and costs, but these are financially and often socially far less costly than a failed business idea. Moreover, the costs of business planning typically decline as the planner's experience rises.

The more qualified business planning becomes, the more reliable are its resulting signals regarding the success of a business idea. Within a decision-theoretical framework, CHWOLKA and RAITH show how the value of business planning is determined by the decision context of the planner, in particular the market potential of the business idea and the riskiness of the market [ChRa-2012]. However, in an uncertain environment, even the most carefully executed business planning cannot prevent failure. For very risky ventures, the probability of failure, even after business planning, can nevertheless be higher than the probability of success. As a consequence, even founders with business plans may more often fail than succeed on the market.

Relevant for the individual entrepreneur is only whether planning before market entry increases the likelihood of success. This is guaranteed, only if business planning as an evaluative process can also convey a signal for termination if the business idea is not good enough for the market. In a very uncertain environment, in which there may be more unsuccessful than successful business ideas, good evaluative business planning will also be more likely to signal termination rather than market entry. Indeed, the better the evaluation, the more likely the idea is to be abandoned. While creative business planning strategically prepares a business idea for the market, the value of good evaluative business planning lies in the fact that it keeps insufficiently good business ideas away from the market and thus protects the founder.

## 24.5 Implications for Product Development

The holistic perspective of business planning and the business model confronts the product developer with a particular challenge because the product to be created is the core of a usually more comprehensive value creation approach, aimed at a target group, which may possibly not yet be identified. The entire value creation process stands and falls with the product. Yet, to believe that the product alone constitutes the entire created value, is too short-sighted, because the product itself is only the core, around which the fruit with all its value dimensions is grown. Since the customer is interested in buying the complete fruit, this is what needs to be taken into account when developing the product.

In order to successfully develop a product, the developer must look at product development backward from the perspective of the customer or user. With the development of the iPhone, Apple was not the first to invent the smartphone. Yet, Apple understood like hardly any other cell-phone manufacturer before how to tailor the smartphone to customer needs that go far beyond the act of telephoning or texting. Technical elegance is an essential feature of all Apple products, but the technology alone does not drive their added value. Thinking product development forward and believing that a customer will always prefer a technically better product, often misses customer benefit. The example of the Wii console clearly shows that

successful product development does not require technical perfection, but a rather successful target group orientation. In order to reach larger markets, standardization and simplification are often more successful than technical extensions.

With increasing societal pressures on firms to take on greater social responsibility (Corporate Social Responsibility), the necessity to consider social and environmental values beyond the traditional customer utility matrix of Fig. 24.1 not only increases the challenges but also the opportunities for product development. Toms Shoes, for example, a US-based shoemaker, donates a pair of shoes to people in need in Africa for every pair of shoes sold to customers in the US. This example of a buy-one-give-one business model illustrates the possibilities of adding social value to traditional products. This approach, however, can only be successful with the appropriate customer segment willing to pay a price premium on the purchased product. The same logic applies to bioproducts, where bio-customers are willing to pay a price premium on food products if they are manufactured in an environmentally responsible way. With customers increasingly sensitized to possibilities of hybrid, i.e., commercial and social or environmental value creation, the necessity arises for product developers to also acknowledge this multi-dimensional value orientation in conceiving a product or service that meets more sophisticated customer needs. Rather than simply tweaking traditional product development approaches, within profit-oriented business models, RAITH and Siebold show how business models can be strategically built around social and environmental missions with or without the objective of making profits [RaSi-2018].

The consideration of the business model thus crucially belongs to successful product development, because the business model provides the strategic framework for product development. A product idea originates in connection with a perceived opportunity. The criteria that the product needs to fulfil are, therefore, determined by the nature of the opportunity. With the marketability of the opportunity, further product specifications are required to position the product against possible rival alternatives, thereby making the value creation process competitive, in the sense that it is economically sustainable.

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