

# Chapter 2

## Levels of Value

### Introduction

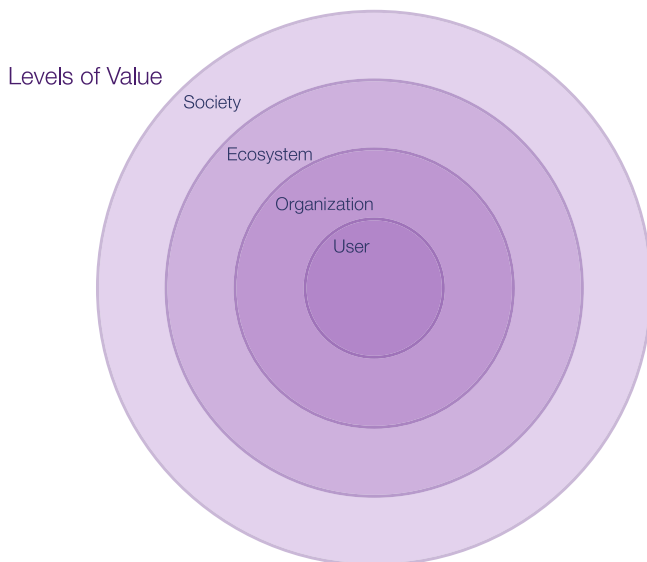
The previous chapter explained the need for transformational innovations to provide solutions to the challenges facing our society. Awareness is growing that these societal and environmental challenges need a collaborative effort by large corporations, innovative entrepreneurs, non-profit organizations, governments and citizens. If they are well designed, transformational and innovative solutions create value for their users and for the organizations involved in developing and delivering them, and as a result they generate sustainable value for society at large.

But what does value actually mean in this context? The word value is used very often, but it certainly does not mean the same to everyone in every context. To better understand value, it is important to distinguish the level at which it is perceived. Four distinct levels of value are relevant in the context of innovation: value for users, value for organizations, value for ecosystems and value for society. As shown in Fig. 2.1, these levels overlap. The values of the user need to be included in those of the organization, those of the organization need to be included in the values of the ecosystem and those of the ecosystem in turn need to be aligned with those of society. Transformational innovation addresses value for all four levels at the same time. But value has a different meaning at these different levels, and it is important to have a good understanding of what these levels are, and what value means at these different levels.

Although the concept of the levels is more general, and could be applied for various purposes, the discussion of the levels in this chapter is limited to the context of innovations that aim to create value through transformation.

### Value for the User

The first level addresses value for the user. The user is the ultimate target of innovation. He is the client, who is expected to use the system, product or service. For transformational innovations it is important that the use of the product is a



**Fig. 2.1** Levels of value

pleasurable experience. If the user does not continue to use the product for an extended period of time, it cannot be claimed to be a success. This differs from the traditional business view which focuses more on the sale of the product, and is less concerned with its extended use over time.

The buyer and the user may be the same person, but often they are not. The person buying the product may buy it for someone else as a gift, or on behalf of someone else. The buyer may be an individual, such as a family member, but may also be someone from an organization. In healthcare, for example, doctors or insurance companies in many cases take decisions for patients. This wider notion of people involved in the total process around decisions and the implementation of innovations will be addressed in the section on ecosystems.

Value for the user addresses the definition of a value proposition that is attractive to the user. That means it is important to deeply understand the motivational values of the user, especially for innovations that aim to change user behavior [6]. If these values are not taken into account users may stop using the product or service, and the potential value of the innovation at other levels is then lost.

If a larger user group is needed to create an impact at societal level, it is also important to understand the differences between individual users and user groups. Both cultural differences [3] and personal preferences may influence the adoption of a product or service [20]. Users' motivations may differ. One person may be prepared to sacrifice some comfort to achieve a particular goal. For example some people do not mind turning their home thermostat down a few degrees to save energy, and just wear warmer clothes. Others may not be prepared to make such an

adjustment. It is therefore risky to judge a larger group of people on the perception of a few representatives.

The ultimate solution for transformational changes is not to require users to make sacrifices. Instead the aim should be to create such a pleasurable experience that they will use the product even more often than they first envisioned. A transformational innovation helps the users to look differently at themselves and change their actions and behavior. Moreover, if the experience is pleasurable it will also help the widespread adoption of the innovation, as users will recommend the product or service to others [19].

## **Value for the Organization**

The second level of value concerns the organization. Organizations are required to design, produce and market new, innovative products and services. An organization in this context can be a for-profit or a non-profit organization that is innovating to create sustainable value for itself by providing added value for its customers. At the same time, it also creates value for their employees by providing jobs.

In business management, an organization is characterized by a more formal pattern of social relationships, and by having a defined goal. Often the overriding purpose and objectives are encapsulated in a mission statement, which is used to communicate this purpose to all stakeholder groups, both internal and external, and to guide employees in their contribution towards achieving it. The strategic intent reflects the direction in which the organization intends to develop. It should be both understood and interpreted by all employees in relation to their work, and is a crucial element in strategic management [15]. Many business managers regard the process of creating value largely as a top-down endeavor. Innovation is regarded as one of the business processes of an organization, and mostly these processes are guided by targets from the top. The organization's vision of an attractive market or competitive opportunity is implemented into innovation projects. These follow an efficient innovation process to translate the vision into a market reality [5].

Organizations are also social systems that interact with other social systems whose values and goals are oriented towards those of the wider society. Key requirements for organizational maintenance are those that apply to all social systems: adaptation, goal attainment, integration and value maintenance. Sociologists cast doubt on whether it makes sense to refer to organizations as institutions, which pursue organizational goals. There are many studies that show that official goals may bear no relationship with actual or operative goals; that organizations frequently have multiple and conflicting goals; and that goal displacement may occur [16]. The informal culture of work within organizations has a significant impact on what is done and how it is done. Many good ideas for innovative solutions to meet market needs or improve performance arise spontaneously from staff working either directly or indirectly with customers. For this bottom-up

innovation to flourish, the organization must encourage the development of organizational creativity at all levels, a key element of any innovation culture [5].

Organizations may choose between different strategies to create value. The classic strategies for competitive advantage as defined by Porter are: lowest cost, differentiation and focus [18]. These can be translated into three value disciplines: operational excellence—offering the best price and/or the least inconvenience to the customer; customer intimacy—understanding the fulfillment of customer needs; and product leadership—delivering unique value products [21]. But as Ohmae already emphasized more than 20 years ago: a value-adding strategy is created not by setting out to beat the competition but by setting out to understand how best to provide value for customers [14]. This also requires a shift from a focus on the organization and its needs to a focus on the end-user, so that the assets that represent real value can be identified [23]. Innovation requires constant redefinition of value by correctly guessing the customer's unarticulated desires and applying the organization's expertise to satisfy them [5]. This means that it is not enough just to listen to the voice of the customer. This provides valuable input on the user, but will not drive new innovations. Transformational innovations by definition address unmet needs, which users are often unaware of. This means organizations need to come up with more radical solutions that create new markets. Or as Verganti stressed: traditional market-pull methods of innovation—which scrutinize customer acceptance before releasing products to the market—sometimes even restrict radical and significant innovation. This is because radical innovation assumes a different context and user approach than those of products already on the market. Instead, for radical innovations that aim to create a new meaning, organizations should 'propose' new products and services [22].

An organization's identity can be stated in five categories: the essence of the organization—who you are at your core; the nature of the offerings—what you offer to others; the effects of heritage—where and when you came to be who you are today; the sense of purpose—why you are in business; and the body of values—how your identity is manifested [8]. The true identity of an organization is defined across these five categories. A company can design products or services specifically to create visual brand recognition, so that they carry distinctive references to the 'character' of the brand as manifest in the defined core values. An example of a company that is successful in this is Volvo. Its designs consistently express the core value of safety, along with the typical Scandinavian design that combines functionality and simplicity with beauty and elegance. A typical design element is the strong 'shoulder line' of all Volvo models that makes the sides look more solid and thicker, contributing to the impression of safety [11]. Some organizations are so successful in creating loyalty among their customers that they turn into 'lovetemarks'. These brands resonate at an emotional level, and seduce customers beyond reasoning to buy and use their products, often at a premium price [7]. This is an interesting aspect related to transformational innovation, because companies that are able to create such a strong bond with their customers are better positioned to seduce them into changing their behavior. Of course this is only possible if it is done in an authentic way, without violating the trust that consumers put in the brand and the organization.

Sociologists point out that business managers need an understanding of how wider relationships of power and control in society affect, and are affected by, organizations [16]. This relates to the discussion of what is regarded as being part of the organization, and what is not. In this book the organization is regarded as the structure for which the chief executive is directly responsible. It excludes the wider view of the supply chain, customers or other partners with whom contracts are established. These extended views will be discussed in the next section: the ecosystem.

## **Value for the Ecosystem**

The third level of value concerns the ecosystem. Most innovations require more than just one organization and a user group to be successful in the market. Many of today's innovations are not just solitary products, but combinations of products and services within larger systems. In many cases different organizations are involved in these larger systems, which will be called ecosystems in this book. These organizations can be of many different types: profit and non-profit organizations, public and private organizations or industrial or regulatory organizations, to name just a few. Each has a specific role in the ecosystem: for example supplying part of the innovation, advising users, providing maintenance services or approving a new product prior to market introduction. Ecosystems stretch beyond the traditional value chain, the supplier–customer network, or the ‘extended enterprise’, which also includes suppliers to suppliers and customers of customers. Ecosystems include all stakeholders that have a direct or indirect role in the various phases of the innovation: the definition, creation, realization and extension.

In the industrial economy, the most suitable model was the value chain. But this model no longer fits the new economies of knowledge and transformation. Knowledge, competences and relationships are more important, which is why value networks or value constellations are becoming the dominant model [13]. In such business networks, organizations can achieve greater value than they would be able to achieve on their own. But it requires mutual commitment and mutual dependence to create inter-organizational systems that promote the creation of value [1]. Emergent value networks are formed by negotiation of interests and positions; this is a dynamic process [10]. The actors in this process have to understand not only who is going to contribute what kind of resources and capabilities, but also who will be the provider of specific generic services such as billing, customer care or service management. This is a complex process due to potentially conflicting interests of the organizations involved, which are often from different industries [4]. In the early phases, the process is even more complex due to the inherent uncertainty about user needs and behavior. This uncertainty is particularly high in the case of more radical, transformational innovations, and an iterative process will be applied to elicit the user needs by ‘proposing’ innovations and improving them where needed. For the actors in the emerging business ecosystem, this uncertainty will limit their ability to secure good positions in the ecosystem right from the start.

The term ‘ecosystem’ stems from biology. It was first used in 1935 to describe a natural unit that consists of living and non-living parts, interacting to form a stable system. The fundamental concepts of ecosystems include the flow of energy via food chains and food webs, and the cycling of nutrients bio-geochemically. Ecosystem principles can be applied at all scales—thus principles that apply to an ephemeral pond apply equally to a lake, an ocean or even the whole planet [17]. The analogy with the business world is recognized by several authors, especially in the knowledge economy. Like business networks, biological ecosystems are characterized by a large number of loosely interconnected participants who depend on each other for their mutual effectiveness and survival. And like business network participants, biological species in ecosystems share their fate with each other. If the ecosystem is healthy, individual species thrive. But if it is unhealthy, individual species suffer deeply. And as with business ecosystems, reversals in overall ecosystem health can happen very quickly. Just like business networks, evolved biological ecosystems—from the Atlantic Ocean to the Amazon—are essentially communities of entities with differing interests bound together in a collective whole [9].

Moore defined a business ecosystem as an economic community supported by a foundation of interacting organizations and individuals—the ‘organisms’ of the business world. This economic community produces goods and services of value to customers, who themselves are members of the same ecosystem. The member organisms also include suppliers, lead producers, competitors and other stakeholders. Over time, they coevolve in their capabilities and roles, and tend to align themselves with the directions set by one or more central companies. Those companies holding leadership roles may change over time, but the community values the function of an ecosystem leader because it enables members to move towards shared visions, to align their investments and to find mutually supportive roles [12].

In the context of transformational innovations the uncertainty is very high, and will be addressed through an iterative process. This also means that the ecosystem will evolve dynamically alongside the creation of the value proposition. Some organizations will exit the ecosystem at certain points because they feel there is insufficient value left for them. Others may enter at a later stage, bringing in new knowledge and experience and thus influencing the value proposition. These dynamics are an inherent part of the process, and should be regarded as necessary to ensure the highest possible value for all members of the ecosystem.

Society is in many cases also a stakeholder that is part of the ecosystem. This can be a specific community such as a neighborhood in which a new, sustainable street lighting system is installed, or it can be society as a whole.

## **Value for Society**

Society is the highest level of value in the model. Users, organizations and ecosystems are all part of society. In many cases the impact of innovations on society is underestimated. Of course, organizations do their best to understand the value of

innovations at all levels, and to benefit from it directly or indirectly. But innovations also have their costs, and not all of these costs are taken into account in an integrated model. Indirect costs of producing goods are often not taken into account. Lester Brown gives an intriguing example of what is wrong with the way calculations are made [2]:

One of the best examples of this massive market failure can be seen in the United States, where the gasoline pump price in mid-2007 was \$3 per gallon. But this price reflects only the cost of discovering the oil, pumping it to the surface, refining it into gasoline and delivering the gas to service stations. It overlooks the costs of climate change as well as the costs of tax subsidies to the oil industry (such as the oil depletion allowance), the burgeoning military costs of protecting access to oil in the politically unstable Middle East, and the health care costs for treating respiratory illnesses from breathing polluted air.

Based on a study by the International Centre for Technology Assessment, these costs now total nearly \$12 per gallon of gasoline burned in the United States. If these were added to the \$3 cost of the gasoline itself, motorists would pay \$15 a gallon for gas at the pump. In reality, burning gasoline is very costly, but the market tells us it is cheap, thus grossly distorting the structure of the economy.

In the end, society as a whole suffers from such distortions because in the end the bill is paid by citizens, either by living in a polluted world, or by increased taxes to cover the costs of cleaning up the mess. In this sense citizens are always stakeholders of any innovation, as the ecological footprint of the products and services consumed affects them directly or indirectly. A more integral view on value is needed that will help organizations to create innovations that bring value to users and society. Such an integral view should include potential harmful effects, and support creative processes to reduce harm and increase value.

On the upside, understanding the issues in society also provides a basis for many new transformational innovations. There is plenty of room to improve the quality of life for many people: both in the Western societies, where poverty has mostly been eradicated, although many people live unhealthy lifestyles, and in the developing societies, where the first step is to create a certain level of wealth through innovative solutions that provide income for many.

The next chapter will explore more deeply what value actually is from different perspectives in the social sciences.

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<http://www.springer.com/978-1-4471-2267-8>

Innovation Design

Creating Value for People, Organizations and Society  
den Ouden, E.

2012, XII, 196 p. With online files/update., Hardcover

ISBN: 978-1-4471-2267-8