

# **INTERCULTURAL PRODUCT DEVELOPMENT - PRODUCT DEVELOPMENT WITH INTERCULTURAL AWARENESS AND VALUE MANAGEMENT**

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## **Summary**

The product development process is a complex one, even if there are merely national requirements to be met. This will be increased by globalization and the increasing need of customer orientation. The influence of the internet, the development of mass transportation and the possibilities of modern communication allow the people of all countries to get closer to each other. A lot of products are sold worldwide and observing people in Shanghai, New York and Berlin could lead to the assumption that they are all “the same”: clothes, smartphones and bags. But there are still a lot of differences based on culture: open and hidden. This has influences on both, the need for adapted products on the one hand and integrated product development processes on the other hand.

This paper gives a short overview of the product development process against the background of intercultural aspects. It begins with a description of the basics of culture and the basics of the product development process. As a consequence of these findings, the product development process will be enlarged to the Intercultural Product Development. The paper is concluded by a cogent example.

The full approach of Intercultural Product Development is described in /PAU01/.

## Culture

Examining the concept of culture would cause several different explanation and associations, which are surely not wrong. Examples for such associations are: art, music, theatre, literature, foreign countries, company culture, preferences, behavior, etc. But what is culture? How is it defined? Unfortunately, there is also no academic consensus concerning this question and consequently, a lot of different definitions and models are existent. Two short definitions are:

- “Culture is a system for creating, sending, storing and processing information“ (Edward Hall /HAL76/)
- “Culture is software of the mind“ (Geert Hofstede /HOF97/).

Culture comprises the norms, beliefs, artefacts and customs that are learned from society and that constitutes its values /FIL95/. These values in particular influence the consumer behavior and are of increasing importance to competitive environments. Culture is not instinctive, it is learned and acquired. It defines acceptable behavior within a society and so sets the rules for all members who belong to the culture /UYA99/.

The above-mentioned definitions of culture are universally applicable, so that not only a national culture can be described in this way but also a culture of region, gender, generation, company, etc. This expandable enumeration makes clear that every individual must consider ‘intercultural’ aspects, even if he or she has no contact to people of different nationality.

## Product Development

The underlying methodology of product development in this report is Value Analysis / Value Engineering mainly according /GIE96, KAN92, MIL64, VDI, VDI/ and - in the European context - Value Management mainly according /DIN02, VAL96/. Value Management is the systematic and creative approach to increase the value of a considered object, i.e. a product, a system or a service. It is characterized by the following items:

- **Interdisciplinary teamwork**  
Employees from all departments, which are concerned with the problem, are working together in a team. The optimal team size is around 5 - 7 persons.
- **Concept of value**  
It is very important to consider all possible values - for the customer, the company, the shareholder etc.
- **Entire view of the problem**  
Because of the interdisciplinary team, it is possible to get to know all influencing factors of the problem and to find a solution, which fulfils all the different needs and demands.
- **Concept of function**  
Function Analysis is a very important part in VA/VE studies. It is clear. Getting rid of focusing on existing solutions of a product or process and focusing on its functions is essential in developing and optimizing products or processes. /PAU14/

The 10 phases and the related elementary steps of this product development process are shown in table 1. The SAVE International® Job plan is different in its structure, but the conceptual content is very similar.

Basic Phases	Elementary Steps
<b>0 Preliminary phase</b>	0.1 Project outline
	0.2 Feasibility investigation, risk analysis
	0.3 Profitability investigation, what is at stake
	0.4 Decision-maker and VA project leader selection
<b>1 Project definition</b>	1.1 The subject
	1.2 Framework of the study
	1.3 Premises of the data about problem
	1.4 Marketing objectives
	1.5 General objectives
	1.6 What is at stake
	1.7 Resources
	1.8 Participants
	1.9 Preliminary risk analysis
<b>2 Planning</b>	2.1 Constituting a working team
	2.2 Working out an initial time schedule
	2.3 Agreeing venue for work
<b>3 Gathering comprehensive data about the study</b>	3.1 Information gathering (internal, and external)
	3.2 Detailed market survey
	3.3 Miscellaneous
<b>4 Functional analysis, cost analysis, detailed objectives</b>	4.1 Expression of need and functional analysis
	4.2 Cost analysis and function cost
	4.3 Fixing detailed objectives and evaluation criteria
<b>5 Gathering and creation of solution ideas</b>	5.1 Gathering of existing ideas
	5.2 Creation of new ideas
	5.3 Critical analysis
<b>6 Evaluation of solution ideas</b>	6.1 Evaluation of ideas, combining them
	6.2 Choice of what is to be developed
	6.3 Work programmes for development
<b>7 Development of global proposals</b>	7.1 Studies, tests, industrial development
	7.2 Follow-up, coordination
	7.3 Evaluation of the solutions
<b>8 Presentation of proposals</b>	8.1 Selection of the solutions to be proposed
	8.2 Working out of implementation programmes
	8.3 Organising comprehensive data about the proposal
	8.4 Obtaining a decision from the decision-maker
	8.5 Keeping the VA team informed and either dismissing or putting it on stand-by
<b>9 Implementation</b>	9.1 Support of the implementation :
	9.2 On exceptional occasions, organisation of other meetings of the VA team to tackle an unexpected problem (reactivation)
	9.3 Assessing the actual results of the implementation, comparing them with the prospective results
	9.4 Disseminating the assessment of the actual results and the technical and general information
	9.5 Perhaps establishment of a system to collect information about field experience

**Table 1: The elementary steps of each phase according the VAVE job plan /DIN02VDI/**

## From Product Development to Intercultural Product Development

So far, two different areas have been mentioned - culture and product development. But what do they have in common? A close examination of the conditions of the contemporary product development process reveals that global markets with high competition and low prices have been established which force companies to react in the following way:

- develop new and innovative products
- lower costs
- shorten time-to-market
- open up new markets
- enter cooperations or mergers

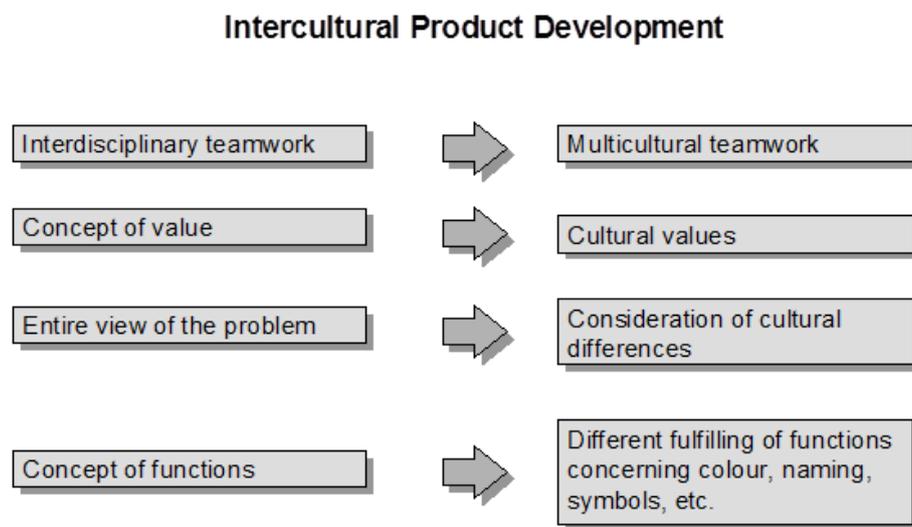
Some of these actions entail that companies get into contact with people from foreign countries. Although these contacts exist for a long time, they haven't been as intensive and complex as today. Because of that the demands on the companies - including executives and employees - are increasing, especially the demand to deal with intercultural aspects.

The combination of intercultural aspects and the product development process to the intercultural product development concerns two areas:

- the **process** of product development, i. e. Value Management
- the **product** as object of product development

### ***The Process***

The four main characteristics of Value Management have already been mentioned. These characteristics are the reason for choosing this methodology as basis for the concept of Intercultural Product Development. They allow the user in a perfect way to work on the challenges in this specific environment. In an intercultural product development process, there is only the need to enlarge the different fields in the following way (picture 1).



**Picture 1: From “Product Development” to “Intercultural Product Development” - the process**

### ***The Product***

A product can be characterized by its attributes. These attributes could be

- technical design
- appearance
- packaging and package
- service and maintenance
- price
- image
- naming and branding

In regard to these attributes, a company has three possibilities to enter a new market

- exporting an existing product without changes
- exporting a more or less adapted product

- developing a new product for this market

By developing products for foreign countries, most of the companies predominantly bear in mind

- legal requirements (e. g. laws, standards, regulations) and
- technical requirements (e. g. different electricity systems, plugs, climate)

but often neglect

- cultural requirements (resulting from different philosophies of life, religions, behavior patterns, preferences, etc.).

### **Example**

The need for Intercultural Product Development becomes clearer with the following example: a comparison of the lawnmower markets in Germany and in Great Britain /UYA99/.

A use limitation for lawnmowers exists in Germany: they are not allowed to be used between 7pm and 7am on working days and not at all on Sundays and public holidays. Apart from this rule lawnmowers are allowed to be used between 7pm and 10pm on working days, if the sound level is less than 88 dB(A). The maximum permissible sound level for a mower with a blade width up to 50 cm is 96 dB(A). There are no such rules in Great Britain.

The garden market in general is very different in both countries. There are differences concerning size of the garden, size of the lawn, sales figures and share of different types of lawnmowers. A summary of these aspects is given in table 2.

	<b>Great Britain</b>	<b>Germany</b>
Garden size in m <sup>2</sup>	250	475
Lawn size in m <sup>2</sup>	105	265
Lawnmowers sold per 100 households in 1997	6,1	3,1
Share of petrol mowers	83%	49%
Share of mains mowers	11%	45%
Share of hover mowers	50%	2%
Share of rotary mowers	30%	90%
Share of cylinder mowers	17%	3%
Share of hand mowers	3%	5%

**Table 2: Selected market data of lawnmowers in Germany and in Great Britain /UYA99/**

The lawn is traditionally very important for British people: “the well-manicured lawn is a symbol of British life“ and “the task of maintaining it remains popular“ /UYA99/. The “well-manicured lawn“ has a high quality of grass, is very short and is provided with stripes (see picture 2). To get such a lawn, the following aspects have to be considered:

- the lawnmower must be provided with rollers  
(The rollers bend the grass in one direction. If the lawn is mowed in alternate direction, the reflection of light entails the stripes.)
- the lawn must be cut twice a week  
(The lawn must not be too high and the grass will raise up again after a couple of days.)
- a cylinder mower has to be used  
(Only this mower type produces such a short and neat cut of grass)



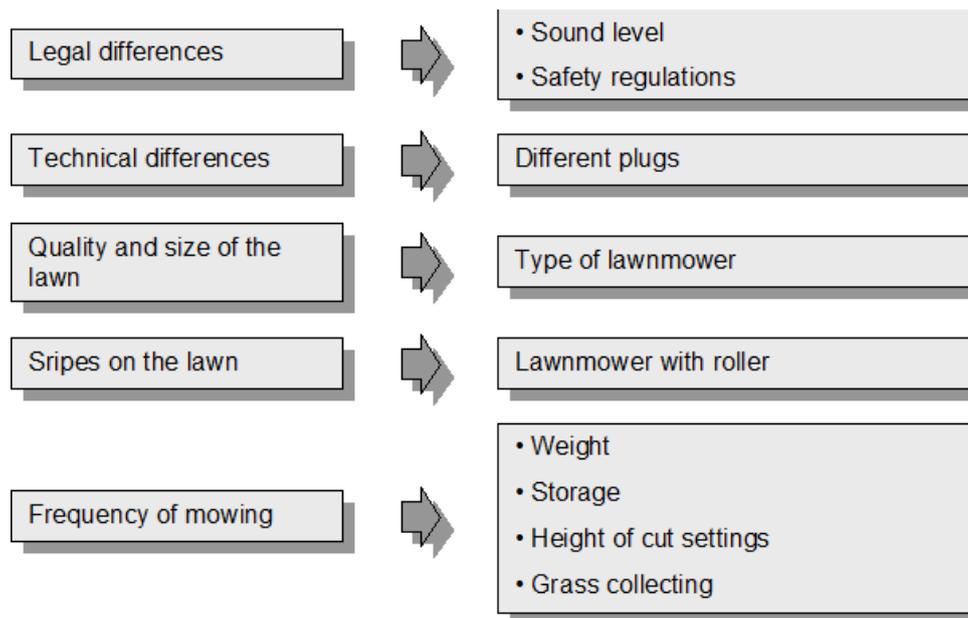
**Picture 2: Example of a lawn with stripes** (<http://www.greenacreskc.com/Lawn-Care.html>)

Correspondingly, the average height of the utility lawn in Great Britain is about 25 - 30 mm, in Germany about 35 - 50 mm, however. The popular “well-manicured”, ornamental lawn in Great Britain is even much shorter, 15 - 25 mm.

Further on, 70% of the German garden owners mow their lawns every fortnight, whereas 60% of the British people do this at least once a week. They also have a different attitude towards their lawn and in relation to gardening in general: In Great Britain, gardening is not considered as a task, but as an enjoyment or hobby and as a consequence of this the garden owners enjoy mowing the lawn, even on Sunday. In Germany, gardening is more a task than a hobby and more people hate the task to mow the lawn. Moreover, mowing on Sunday is forbidden by law.

These short descriptions concerning legal, technical and cultural differences bring up the question, if companies, which want to sell their lawnmowers in both countries, could offer identical or adapted products, or if they have to develop totally different lawnmowers for each market.

Picture 3 shows a selection of influences with the corresponding consequences. A more detailed description is presented in /UYA99/.



**Picture 3: Selected influences on and consequences from different market conditions for lawnmowers**

## Conclusions

High competition and the need of increasing profits force companies to enter foreign markets. Companies normally have a thorough knowledge of their domestic market and the corresponding consumers. If a company intends to enter a foreign market it is of paramount importance to investigate this market thoroughly to grasp and comprehend the different needs, preferences, circumstances and factors influencing consumers in different countries. A company might have developed a good product which may be very successful in one country but there is no guarantee that it is also successful in another country (e.g. hover mower in GB and Germany, see table 2). Foreign markets offer a high potential of profits, but also a high risk of failure. Value Management is the perfect methodology to handle this challenge. With the four main characteristics it is focusing on the most important aspects of both, the process and the products: teamwork, value, holistic perspective and function.

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