

Cultural Differences between Germany and the United States in Landing Page Design

Marion Hoesselbarth
University of Wuerzburg
marion.hoesselbarth@uni-wuerzburg.de

Daniel Neuß
University of Wuerzburg
daniel.neuss@uni-wuerzburg.de

Ina Eicholt
University of Wuerzburg
ina.eicholt@gmail.com

Axel Winkelmann
University of Wuerzburg
axel.winkelmann@uni-wuerzburg.de

Abstract

Companies with global operations should consider the culture of their target country in order to be internationally successful despite of globalization. Every marketing strategy should be adapted to the target country and its local cultural background. Companies which offer their products only through online channels need to pay special attention to the design of their websites. Therefore, we analyze in this study the design of United States and German landing pages in the online fitness industry and whether or not changes can improve the conversion rate of a landing page. To answer these questions, we develop and evaluate a culture specific landing page framework with a design science approach. The evaluation shows optimization potential of landing pages for the test elements “free content” and “promotional pictures”. Hence, the framework can be used to identify improvement potential for culture specific landing pages, but needs to be validated in other areas, too.

1. Problem identification and motivation

Globalization increases in international integration between societies and states. This has implications for numerous fields, such as business, politics, the environment, but also for each country's culture. The culture of a society has no boundaries, and it may be assumed that different cultures merge in today's globalized world. In relation to this issue, we generally speak of a hyper culture that combines the aspects of many different cultures [5]. However, numerous cultural researchers, including Hofstede, assume that there are elements of a culture that remain constant despite the influence of new and different cultures over time. In the face of all the changes that take place in the course of globalization, there is a reliability in the values of a culture [8]. All companies with global operations should make an effort to understand culture to survive in the global economy. Products and their

marketing should be individually adapted to the respective countries including their cultural and local environment. In addition to the design of the product other aspects are important, such as advertising or the adaptation of websites. The purchase decision of website visitors depends on whether or not they are attracted to and can identify themselves with the product. The goal of every website is to convert visitors into customers. Therefore, a company can use a landing page to provide the visitors with the relevant information about a product. Those companies that sell their products online need to take extra care when designing and structuring their landing pages. A landing page is one of the most important tools of online marketing and has the task of informing a visitor about a particular offer. For this reason online marketing should also face the challenges of cultural adjustments [1]. In this study we chose the fitness industry to demonstrate the effects and opportunities of cultural differences in the context of landing page design. According to the study of the European health and fitness market, the fitness sector is growing continuously. Membership in European health and fitness clubs grew by 9% from 2013 to 2014. In addition, the fitness sector is being defined by changing consumer preferences, which cause a polarization of the market segments and diversification of the products offered. Digitalization continues to play a major role in this market, as it has in other consumer goods markets. More and more fitness clubs offer programs exclusively through the internet, requiring them to pay closer attention to the cultural differences between different countries [3,21]. The present study examines the differences between landing pages both in the United States and in Germany in the online fitness sector. The research questions (RQ) of the study are:

RQ1: Do cultural differences reflect in the design of landing pages in comparison between Germany and the United States?

RQ2: Can changes based on cultural differences improve the conversion rate of landing pages?

After the introduction in section 1, where we identify the problem, section 2 justifies our decision to adapt the cultural framework of Hofstede to the structure, contents and design of a landing page of the fitness market in different countries. Afterwards, we discuss our research approach in section 3 and we describe the development and the design of the landing page framework in section 4. In section 5, we demonstrate the developed framework by applying it to the landing pages of different online health, nutrition and fitness clubs in the United States. Subsequently, we compare these results with the landing page of our test company to identify optimization potential. This step is evaluated and discussed in section 6 by performing different types of tests before we conclude in section 7. In order to achieve rigorous research, we chose the design science research approach as our method following the steps from Hevner et al. (2004) and Peffers et al. (2007) [7,18].

2. Define the objectives

2.1. Theoretical background

Potential customers are routed through various channels to a specific website called a landing page. The product or offered service is therefore accessible online for the prospective customer [1]. A landing page can be divided into different elements, such as content (e.g. headline and sub headline, unique value proposition), concept of the landing page (e.g. design, layout, sound), approach for the inclusion of information (e.g. images, videos, newsletter), images (e.g. hero shot, promotional pictures), trust building elements or people (e.g. testimonials, protagonists), pricing (e.g. visual display, offers), call to action and footer (e.g. contacts, privacy policy, terms and conditions) [4,10].

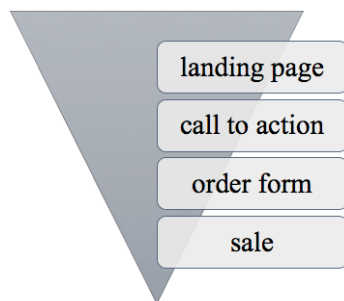


Figure 1. Conversion funnel

A landing page is an essential tool for bringing a product or information to the prospective customer. The goal is to convince the visitor to buy a product, otherwise it has failed in its purpose. If this target is reached, a conversion was made by the visitor of a website [4] (see figure 1).

The conversion rate is calculated by conversion divided by either unique visitors or the number of visits [19]. Since we focus on the people themselves, we chose the unique visitors. Improving the measurable success of a landing page is therefore an ongoing process to increase the number of customers (landing page optimization). The process from a landing page to a conversion is described as the conversion funnel, which needs to be considered if you want to optimize your conversion rate (see figure 2). For the conversion rate optimization, an iterative procedure with the following steps is intended: 1. Analysis, 2. Testing strategy, 3. Implementation, 4. Testing and 5. Permanent realization [4,12].

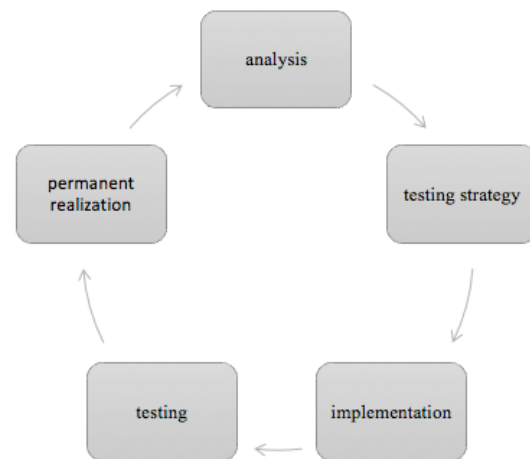


Figure 2. Conversion rate optimization

In the first step the weaknesses of a landing page are identified. Afterwards those weak points can be evaluated and improvement proposals and testing strategies can be developed. On the basis of those strategies a new version of the landing page is implemented and tested. A/B and multivariate testing can be chosen for the test procedures. If the testing strategy is successful, the improved version is published. Findings which result from the testing are documented and, if the implementation as well as documentation of lessons learned have been made, further testing strategies can be applied [12]. Testing

and conversion rate optimization are only effective when the test results have a statistical significance [12].

Since we wish to determine whether the success of a landing page depends on the cultural aspects of a country, we performed a literature review to identify existing culture frameworks. The results of the review are shown in the following section.

2.2. Literature review

After identifying and reviewing the available literature of cultural differences between different countries, e.g. the work of Hofstede and Hofstede (2005), Kluckhohn and Strodtbeck (1961), Schwartz (1999) and Trompenaars and Hampden-Turner (1997), we performed a literature search regarding landing pages in a country-specific context. A country or a nation has common cultural values. Cultural dimensions therefore constitute a good basis for the delineation of locally adapted landing pages. Within the literature analysis on culture dimensions and landing page design different hypotheses are analyzed which give concrete proposals for a design of the landing page, depending on the extent of the cultural dimension.

A structured approach with regard to the documentation of the analytical framework is essential for a literature review to ensure the traceability of the analysis carried out. For the present analysis of the literature we selected the approach of vom Brocke et al. (2009) [2]. We performed the analysis in different databases (e.g. EBSCOhost, Science Direct and Emerald Insight) and identified 57 articles that were relevant in our context. Hence, we could divide the results into three clusters:

1. General cultural research
2. Cultural research and web page design
3. Cultural research and software frontend design.

Hofstede et al. (2005) rather refer to general behavior of individuals of each culture dimension. His theses produce no direct connection to the design of landing pages, but were dispersed on the elements of the landing page by the author of the present work [9].

Schwartz (1999) identified seven types of values which make cultures comparable [22]. Kluckhohn and Strodtbeck (1961) came up with different cultural orientations. Each dimension contained a set of questions, which people of different countries had to answer, and possible answers for these questions. With those questions and answers, they were able to

establish six different cultural orientations [11]. Trompenaars and Hampden-Turner (1997) classified seven different dimensions in their model and emphasize that people from different countries make different choices in life. Therefore, the model is a general guide for handling people from different cultures [26]. Hofstede et al. (2011) rather refer to general behavior of individuals from each culture dimension. The research is based on a survey of values of people from more than 50 countries worldwide. Despite the age of the data it is still regarded as current. Hofstede describes in his book that the correlations don't decrease as time passed and they still have an equally great validity today compared to the 80s, when the study was conducted. Their theses produce no direct connection to landing page design, but were dispersed by the authors of the present work on the elements of landing pages [8]. Marcus and Gould (2000), Meidl (2013), Paek et al. (2009), Robbins and Stylianou (2002), Singh and Baack (2006), Singh and Matsuo (2004) and Singh and Pereira (2005) focus their research on different types of websites providing information that helps to configure the design with respect to the cultural dimensions of Hofstede [13,15,17,20,23,24,25]. Zahedi and Bansal (2011) focus on the cultural design of website images [27].

Marcus (2005) focuses on the cultural impact on the software front-end design with respect to Hofstede's dimensions [14]. This is therefore not a web document, such as the landing page, but a desktop application. Since almost all of the identified articles in the clusters cultural research, and web page design and software frontend design deal with Hofstede's cultural framework, we developed a culture-specific landing page framework on the basis of his cultural dimensions (see section 4).

3. Research approach

In order to develop the framework, we followed the design science research method of Hevner et al. (2004) in combination with the methodology of Peffers et al. (2007) who propose five process steps to develop a framework.

After the identification of a problem, the definition of objectives is the second step. In the first sections, we identified the problem and performed a literature analysis to analyze existing cultural frameworks. As we described within the analysis, we got an overview over several frameworks and decided to adapt the culture framework of Hofstede et al. (2011) to match our objectives.

The solution includes the development and design of an artefact, which is described as an artificial object with a precisely described purpose [7]. The development of the culture-specific landing page framework was implemented in cooperation with a provider of online programs in fitness, lifestyle and health. One of their online programs includes a ten-week weight loss program that is based on nutrition, exercise and motivation. Originally, the product was sold exclusively in Germany, but after two years they also created a website in the United States in order to sell the same product there. The German product, however, remained the flagship for the test company. The landing page of the test company has a lot in common both for Germany and for the United States. Both the design and content of the German website were applied to the American product page and only adapted linguistically. Nevertheless, the sales rate of the American website is far behind the percentage values of the German website. The disregard of cultural differences between those countries could be one reason for this.

Afterwards, we validated our framework by analyzing the landing pages of the competitors of our test company. We identified ten equal competitors within the sector of online fitness and weight loss programs and compared the classification of their landing pages both to the classification of the United States and to the German landing page of the test company in the different cultural dimensions of the landing page framework. The differences in culture indicated potential for optimization. For the identification of possible improvements, the biggest differences between the landing pages are used in the demonstration of our framework.

After the demonstration, the artefact is evaluated in practice. The use of the framework is demonstrated through different tests for the optimization of landing pages. Therefore, we implemented and evaluated two test elements (promotional images and free content) which had been identified.

Finally, a conclusion about the overall process is drawn and we give an outlook for further research in this area.

4. Development and design of the framework

This section is divided into two parts: First we describe the five cultural dimensions of Hofstede's framework in order to provide an overview. Afterwards, we outline the development and design of the culture-specific landing page framework.

4.1. Cultural dimensions of Hofstede

Hofstede describes four different dimensions in his framework (power distance index, individualism, masculinity and uncertainty avoidance index) in the 80s. Another dimension, called long term orientation, was added in 1991 based on a Chinese value survey [16]. In order to develop our framework on the basis of those five dimensions, we give an overview of them now.

Power distance index (PDI) is described as “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” [16]. A large PDI indicates an unequal distribution of power and a big distance between individuals of different levels in the hierarchy. On the other hand a small power distance demonstrates a homogeneous distribution of power and therefore, a small emotional distance between employees and supervisors [8]. A high individualism index (IDV) refers to an individualistic society, in which the use of the nominative “I” is promoted. In addition, a high IDV is characterized by a predominant position of the individual to the group. Hofstede et al. (2011) refer to the studies of Hall (1976), who introduced the distinction between low context and high context levels within the forms of communication [6,8]. Individualistic countries therefore belong to the low-context cultures. In collectivist societies (low IDV), the interest of a group is at a higher level than the interest of individuals. The group has priority and the use of the word I is avoided, as this is considered selfish [8,16]. There are more individuals (men or women) with masculine values, e.g. self-confidence, willingness to face competition, strength, materialism or success, than individuals with feminine values in countries with a high masculinity index (MAS). Challenges, income, knowledge and progress are important. A low MAS refers to a strongly feminine society, where you can find a balance between the sexes [8,16]. Countries with a strong uncertainty avoidance index (UAI) involve members, who feel threatened by unknown situations. People in this society avoid insecure and unknown situations whenever possible and avoid risky behaviors. Cultures with a weak UAI have a lower level of anxiety. New and unknown situations aren't harmful and the people are open for new situations [8,16]. The last dimension (high long term orientation index – LTO) focuses on the future. Values and behavior are aligned with future life. Furthermore, tenacity and perseverance are observed for the long-term achievement of goals. In countries with low LTO (short-term orientation) the focus is on the past. Values of bygone days are

important and should be maintained in the future. People can achieve objectives with effort and strengthen their individual character [8].

4.2. Landing page framework

The aim of this section is to develop the framework which provides a procedure for the creation, structure and design of culture-specific landing pages and shows culturally bound optimization potential on the basis of Hofstede’s cultural dimensions. A country or a nation has common cultural values, and therefore, cultural dimensions constitute a good basis for the delineation of locally adapted landing pages. We assigned the hypotheses of all authors identified in the literature review (in section 2) to the different elements of a landing page. Table 1 gives an excerpt on theses on landing page design for countries with a high UAI. In the same way, we assigned the hypotheses of the identified authors in section 2 for each instance of the culture dimension (PDI, IDV, MAS and LTO) to the landing page elements. If we consider the landing page element content and the sub-element approach, we can derive theses for the design of this element or possible optimization potentials for a landing page from a country with a high UAI.

Table 1. Landing page framework for a high UAI

Element		Theses
Content	Headline & Sub headline	Mostly content-oriented headline, e.g. "What is the goal?" [8]
	Continuous Text	Authenticity and pureness [8]
	Approach	<ul style="list-style-type: none"> Local terminology: country-specific metaphors or puns [23,24] Mostly content-oriented approach "What benefit do I have?" [8] Emotional approach [8]
Call to action (CTA)		<ul style="list-style-type: none"> Need for security is a great motivator, e.g. represent money-back guarantee prominently [8] Mostly content-oriented CTA "What is my goal?" [8]
Concept	Design	Visual design: clear, simple, consistent, e.g. one color scheme [14]
	Sound	If sound is used, uniform sound concept and no unexpected sounds etc.

	Layout	<ul style="list-style-type: none"> Guided navigation [14,23,24] <ul style="list-style-type: none"> Visible Links Links with images or buttons forward & backward, up & down navigation Previews [13] There is only one way through the conversion funnel to avoid uncertainty [8] Small amount of content, e.g. text [13] No distractions as by flashing banners [8]
	Information	<ul style="list-style-type: none"> Free content, information, e.g. sample recipes, sample videos, sample sport exercises; trial membership [23,24]
Images	Hero Shot/ Promotional Pictures	Emotional images, e.g. laughing people [8]
Pricing	Visual Display/ Offers	Just a few purchase options on one site [14]
Trust	Trust building elements	<ul style="list-style-type: none"> Local points of contact [23,24] Any form of trust is important [8] Academic journals, interviews with experts [8]
	Testimonials/ Protagonist	All forms of confidence, e.g. testimonials, official seals [25]
	Footer	<ul style="list-style-type: none"> Legal Notice <ul style="list-style-type: none"> Tradition: History e.g. generations, the company’s relationship to the nation [23,24] Data protection [8] Toll-free contact: 24/7 [23,24]
	Interaction/ Communication	<ul style="list-style-type: none"> Customer service: FAQ, customer support, search [23,24] Service information displayed prominently e.g. number or e-mail address [23,24]

5. Demonstration

After developing the landing page framework, we demonstrate the usage of the artefact in this chapter to answer the first research question. According to the five cultural dimension (explained in section 4) Table 2 describes the country scores of Hofstedes’ studies for the United States and Germany. The scores in the different dimensions vary between a range with the

maximum value at around 100 to the lowest about zero [16]. To compare the different dimensions with the different ranges, we calculate the relative deviation between the scored points, shown in the last row. The United States for example has with 91 the highest IDV value of all countries, which leads to a relative score of 100% while the calculated relative value from Germany with 67 points is 74%. This leads, with a deviation of 26%, to the highest deviation of all dimensions.

The PDI, MAS and LTO score are, with less than 5% difference between Germany and the United States, close cultural dimension and therefore not suitable to address differences. On the other side the IDV value difference of 26% and UAI with -17% are considerable different and therefore a possibility to evaluate cultural differences in the landing page design. The higher United States IDV score signifies a country where the relations between individuals are looser than in Germany. An example for content design can be a more individual motivation approach for the United States like “You can do it on your own”, on the other side the German page can motivate with “Your comparative group was successful, so you can be successful”. The higher UAI in Germany means that the people are more sensitive to uncertainties. This can result in a more detailed explanation of the product features to reduce the uncertainty before buying the content.

Table 2. Hofstede's dimensions [8]

	USA (abs.)	GER (abs.)	Max. Value	GER (rel.)	USA (rel.)	Deviation
PDI	40	35	104	33.7%	38.5%	4.8%
IDV	91	67	91	73.6%	100.0%	26.4%
MAS	62	66	110	60.0%	56.4%	-3.6%
UAI	46	65	112	58.0%	41.1%	-17.0%
LTO	29	31	108	28.7%	26.9%	-1.9%

After identifying the significant different cultural dimensions, the next step is the evaluation of the competitor samples to identify cultural weaknesses in the design of other German landing pages. These are at the same time opportunities to optimize the conversion rates and then the conversion funnel. The developed landing page framework (section 4) is merged with the identified competitor landing pages to evaluate the culture fit of these pages. The headline & sub headline of the first competitor for example, is focused on the content of the included value from the offered service package (Table 1). The content focus helps the user to

avoid uncertainty before purchasing the product which is, according to Hofstede, more common in a country with a high UAI like Germany. Each framework item was scored on a 5-point-Likert-type scale, with the range from one (strongly agree) to five (strongly disagree). This method is in conformance with the questionnaire Hofstede has developed in the year 1971 [9]. All the single framework items are aggregated to calculate the different scores for the dimensions. To compare the results, the relative achieved result of the specific landing page is calculated. Within the example of the first competitor the scored value is 22. The maximum value from the category HUI is 48, which leads to the relative HUI of 78%. The average value of all the calculated relative HUAs is shown in Table 3 for each dimension respectively high (“H”) and low (“L”).

Table 3. Calculated results of the framework demonstration

	United States	Germany	Deviation
HPDI	79.4%	74.7%	4.8%
LPDI	58.0%	54.3%	3.7%
HIDV	49.8%	60.0%	-10.2%
LIDV	72.7%	66.7%	6.0%
HMAS	72.9%	70.0%	2.9%
LMAS	74.2%	76.7%	-2.5%
HUAI	69.8%	58.2%	11.7%
LUAI	68.3%	72.5%	-4.2%
HLTO	82.7%	80.0%	2.7%
LLTO	62.4%	65.0%	-2.6%

The evaluation of the United States competitor sample and the German website for Hofstede's cultural dimensions demonstrates the similarity between the two cultures. The dimensions PDI, MAS, and LTO are – with a deviation of less than 5% – almost equal. The results of the evaluation are similar to Hofstede's results. As in his research the dimensions IDV and UAI have an expanded deviation. With a 11.7 % higher score on the side of the United States landing pages the high UAI value is significant different. The high IDV value from Germany signified a 10% greater focus on individualism than the sample group.

The next step is to calculate the target value the German version of the page should achieve. This is based on the assumption that the websites from the US competitors fit the demand of the American culture because it is made from American companies for American customers. The calculation of the optimal difference between the competitor samples and the

German website can be found in Table 4. According to the numbers from Hofstede, the German page should aim for an HIDV 26% under the United States reference value and an UAI 17% above the value of the United States. The next line in Table 4 “German website with Hofstede (target)” calculates the target value by subtracting Hofstede’s relative culture values from the United States competitor sample. The HIDV value is estimated to be 26% under the 50% competitor sample from the United States, which is 13%. These are subtracted from the current German value to get the target value of 47%. The results show potential for the landing page to improve in all four examined categories. The greatest potential improvement is possible to decrease the NIDV value down from 67% to 48% and reduce the HIDV dimension by 13%. The Table also identifies possibilities for the optimization of the UAI values. The outcome of the calculation is to raise the HUAV of 70% and the NUAI from 73% up to 84%. This identifies the possible objectives to evaluate research question 2.

Table 4. Target estimation for the German website

	HIDV	LIDV	HUAI	LUAI
United States (competitor sample)	49.8%	72.7%	69.8%	68.3%
German website (current)	60.0%	66.7%	58.2%	72.5%
Deviation (current)	10.2%	-6.0%	-11.7%	4.2%
Deviation Hofstede (target)	26.0%	26.0%	-17.0%	-17.0%
German website with Hofstede (target)	47.0%	47.7%	70.1%	84.1%
Deviation Hofstede and current German website	13.0%	19.0%	-11.9%	-11.6%

The demonstration of the landing page framework in this chapter identified optimization possibilities for the German landing page to adjust culture-specific content and addressing the United States customers in a target specific way. As a result, modifications in the UAI and IDV sections should lead to higher conversions. That is evaluated in the next section.

6. Evaluation

The hypotheses of the dimensions IDV and UAI of the landing page framework are used as optimization potential to align the test company’s landing page to the American culture. We try to increase the values of these characteristics and to achieve an alignment with

the culture of the United States. Therefore, we identified eleven different landing page elements and their optimization potential, e.g. realization of an action oriented headline and approach, aggressive pricing, emotional pictures, redesigning the gathering of information (e.g. sample recipes and videos). Other options, also from other dimension characteristics, can be chosen as test elements in further studies. Additionally, the identified optimization options can have, but are not bound to have impact on the conversion rate of a landing page. Therefore, we used mouse tracking and performed a competitor analysis to evaluate the strength of the impact. According to the result of the potential for optimization we prioritized the eleven landing page elements. The findings of the mouse tracking and the competitive analysis provide information regarding which landing page elements need improvements. For our evaluation we implemented and tested the first two elements of the numerous potential optimization:

Promotional images: Use of emotional images and to increase the attention and curiosity of prospective customers and the establishment of an emotional connection to the product.

Free content: The visitor is provided prospective value in the form of sample recipes and training videos. This is another method of gathering information and it shows the prospective customer the content of the product, even before s/he buys it.

Any change to a website can influence its conversion rate. For the performance optimization of a website, i.e. increasing the conversion rate, it is important that changes are adequately tested. The testing provides information on whether the change is an effective improvement or not. For this purpose, you can use different test methods. One of the main methods is the so-called A/B test (see section 2). We evaluated the two identified elements in the United States from November 2014 until January 2015 to prove our research questions.

6.1. A/B testing

In this case, two web pages are compared to determine the more successful page. A website is more successful than another, when it records a higher conversion rate, i.e. converts more visitors into customers. On the one hand, we have the original website (referred to as comparative variant) and a modified website (referred to as test variant). In carrying out the A/B tests, visitors are divided into groups A and B. Group A sees the comparative variant, group B the test variant [4]. Relevant data (e.g. page views and conversions) is measured and considered for the analysis. Factors such as the weather or holidays

are taken into account by dividing the target group into two smaller groups and the simultaneous testing of both variants. The variant with the higher conversion rate is ultimately the better one and should be made permanent as long as the improvement is statistically significant.

6.2. Design and implementation of testing strategies

The established test strategies are documented in a test design. This includes the goal of optimization, the thesis that is underlying the optimization, as well as a definition of the test element of the page and requirements for the new design. At first, a new version of the test element based on a mock-up is created for the implementation of test strategies. It is a temporary graphical representation. The comparative variant and the test variant are designed identical to the previous page. Only the test element of the test design will be adjusted according to requirements [12]. Thus the comparability to the previous page is maintained. The testing verifies whether the implemented improvement action has led to the desired success.

6.3. Results of the tests

After designing and implementing the testing strategies, the tests were performed. The results of the two tests (for promotional images and free content) are described now.

Promotional images

Two measures are of particular importance for this test: the newsletter subscription rate and the sales rate. 12.27% less interested persons signed up for a newsletter on the test variant compared to the comparative variant. So the comparative variant achieved more newsletter sign-ups than the test variant with the emotional images. The confidence level is >99%. Thus, the result is considered statistically highly significant. Considering only this result, the thesis would not confirm that emotional images have a positive effect on the behavior of customers. An increase in the newsletter subscription rate is desirable, and but it doesn't necessarily lead to a higher sales rate. In the end, the sales rate is decisive, because only wealthy customers generate sales revenue for a company. When calculating the sales rate, the results have turned. Despite a higher newsletter registration rate, the comparative variant obtained fewer sales than the test variant. The test variant has an average of 10.3% more sales (see Table 5). However, the confidence level of this evaluation is 69%. The

probability therefore is 69% that the test variant will win in another evaluation. If the confidence level is over 95% the results are considered significant. However, this does not mean that a non significant result is unusable. The low conversion rate of the newsletter in the test variant could be due to the fact that only the prospective who identified themselves with the images signed on (in this case, women who want to feel better and enjoy life again by losing weight). The positive impression of the images probably continues on the other landing pages and convinced them to buy the product. So, emotional images seem to have a not unimportant influence on the purchasing behavior on a landing page. The test should be carried out again in a modified form to increase the significance and achieve a clear result.

Table 5. Results test element free content

Landing page	Visits of landing page	Number of orders	Conversion rate (landing page > order)
<i>Comparative variant</i>	15756	206	1.31%
<i>Test variant</i>	15533	224	2.44%
<i>Relative difference (test variant – comparative variant)</i>			10.30%

Free content

The results of this test are clear. The test variant leads to a relative improvement in the sales rate of more than 37.5% compared to the comparative variant (see Table 6).

Such a clear result suggests a high level of confidence. This was calculated as >99%. Thus, the test variant is highly significantly better than the comparative variant and therefore it excluded a random result. The test variant was permanently implemented and published for the test company. From this result, more sales could be achieved in the future. The thesis that customers need a different kind of information gathering, e.g. with sample recipes and training videos, has been confirmed.

Table 6. Results test element free content

Landing page	Visits of landing page	Number of orders	Conversion rate (landing page > order)
<i>Comparative variant</i>	9690	153	1.58%
<i>Test variant</i>	10776	234	2.17%
<i>Relative difference (test variant – comparative variant)</i>			+37.53%

7. Conclusion and research outlook

Within this article, we have created an innovative and purposeful artifact for the improvement of conversion rates on culture specific landing pages according to [7]. Therefore, we described the problem and motivation, defined our objectives and performed a literature analysis. Based on this, we developed a culture-specific landing page framework, which was demonstrated and evaluated. With the demonstration of our framework, we showed, that the design of a landing page should depend on the culture of a country and that cultural differences are reflected in the design of a landing page in comparison between Germany and the United States (research question one, see section 1). The evaluation shows that especially test element two in particular (free content) represents a major lever for increasing the conversion rate. Test item one (promotional images) shows that an improvement of the landing page doesn't necessarily have to be an improvement of the overall conversion rate of conversion funnels. Although the result is considered to be not significant, it shows revealing insights regarding the use of promotional images. The use of such images has a positive influence on the conversion rate of the landing page, which should be validated by further testing. With these results we confirm our second research question that changes based on cultural differences can improve the conversion rate of landing pages.

We suggest further field studies to monitor the use of our framework in multiple projects and derive new areas of application. As we have just made one comparison – between German and American landing pages in the fitness sector – we don't claim that our framework itself would not benefit from further extensions. Each landing page is special and also the potential customers are very different. A generally accepted guideline, which defines both the design and the implementation of the landing page to the culture, is not possible and also not desired. It requires an adequate interpretation of space to implement the theses targeted for landing pages. Under certain circumstances multiple test designs for potential improvements are required before the desired effect is achieved. The validation was held sector- and country-specifically. It consisted of a relatively small sample of 10 landing pages. To increase the significance and use of the frameworks in other countries and sectors, a new verification or an extension of the existing validation should be performed. There are numerous other possible optimization options besides the two mentioned potentials in this paper to increase the conversion rate of landing pages and conversion funnels. In addition to promotional images and

information gathering there are a number of other elements (headline & sub headline, speech, trust elements, communication, design and page layout) that can be tested.

8. References

- [1] Ash, T., *Landing Pages: Optimieren, Testen, Conversions generieren*. mitp, Frechen, 2013.
- [2] vom Brocke, J., Simons, A., Nichaves, B., Riemer, K., Plattfaut, R., and Cleven, A., "Reconstructing the Giant: on the Importance of Rigour in Documenting the Literature Search Process", *ECIS 2009 Proceedings*, 2009, Paper 161.
- [3] Deloitte GmbH Wirtschaftsprüfungsgesellschaft, "Deutsche Fitnessbranche mit hoher Dynamik", 2016, <http://www2.deloitte.com/de/de/pages/presse/contents/deutsche-fitnessbranche-mit-hoher-dynamik.html>.
- [4] Düweke, E. and Rabsch, S., *Erfolgreiche Websites: SEO, SEM, Online-Marketing, Usability*, Galileo Press, Bonn, 2012.
- [5] Fuchs, M., "Kulturelle Globalisierung Definition", 2016, <http://www.globalisierung-fakten.de/globalisierung-informationen/kulturelle-globalisierung-definition/>.
- [6] Hall, E.T., *Beyond Culture*. Anchor Books, New York, 1976.
- [7] Hevner, A.R., March, S.T., Park, J., and Ram, S., "Design science in information systems research", *MIS Quarterly* 28(1), 2004, pp. 75–105.
- [8] Hofstede, G., Hofstede, G.J., Mayer, P., Sondermann, M., and Lee, A., *Lokales Denken, globales Handeln. Interkulturelle Zusammenarbeit und globales Management*, Verlag C.H. Beck, München, 2011.
- [9] Hofstede, G., *Culture's Consequences. Comparing Values, Behaviors, Institutions, and Organizations Across Nations*, SAGE Publications, Inc., London, 2001.
- [10] Hubert, T., "11 Landingpage Elemente im Bewertungsraster", 2010, <http://www.konversionskraft.de/landing-page-optimierung/11-landingpage-elemente-im-bewertungsraster.html>.
- [11] Kluckhohn, F.R. and Strodtbeck, F.L., "Variations in value orientations", 1961.
- [12] Krüger, D.J., *Conversion Boosting mit Website Testing*, Verlagsgruppe Hüthig Jehle Rehm GmbH, Heidelberg, 2011.
- [13] Marcus, A. and Gould, E.W., "Crosscurrents: Cultural Dimensions and Global Web UI Design", *Interactions* 7(4), 2000, pp. 32–46.

- [14] Marcus, A., User interface design and culture. In Usability and internationalization of information technology, Taylor & Francis Group, LLC, Boca Raton, 2005, pp. 51–78.
- [15] Meidl, O., Global Website. Webdesign im internationalen Umfeld, Wiesbaden, 2013.
- [16] Minkov, M., Cross-Cultural Analysis. The Science and Art of Comparing the World's Modern Societies and Their Cultures, SAGE Publications, Inc., Los Angeles, 2013.
- [17] Paek, H.-J., Yu, J., and Bae, B.J., "Is On-Line Health Promotion Culture-Bound?: Cultural Characteristics Manifested in U.S. and South Korean Antismoking Web Sites", *Journal of Advertising*, 38(1), 2009, pp. 35–48.
- [18] Peffers, K., Tuunanen, T., Rothenberger, M.A., and Chatterjee, S., "A design science research methodology for information systems research", *Journal of Management Information Systems*, 24(3), 2007, pp. 45–77.
- [19] Peterson, E.T., Web site measurement hacks - tips and tools to help optimize your online business, O'Reilly Media, Inc., Sebastopol, 2005.
- [20] Robbins, S.S. and Stylianou, A.C., "A study of cultural differences in global corporate web sites", *Journal of Computer Information Systems*, 42(9), 2002, pp. 3–9.
- [21] Rutgers, H., Hollasch, K., Struckmeier, J., and Lehmkuhler, B., *European Health & Fitness Market Report 2015*, 2015.
- [22] Schwartz, S. A., "Theory of Cultural Values and Some Implications for Work", *Applied Psychology*, 48(1), 1999, 23.
- [23] Singh, N. and Baack, D.W., "Web Site Adaptation: A Cross-Cultural Comparison of U.S. and Mexican Web Sites", *Journal of Computer-Mediated Communication*, 9(4), 2006.
- [24] Singh, N. and Matsuo, H., "Measuring cultural adaptation on the Web: A content analytic study of U.S. and Japanese Web sites", *Journal of Business Research*, 57(8) 2004, pp. 864–872.
- [25] Singh, N. and Pereira, A., *The Culturally Customized Web Site: Customizing Web Sites for the Global Marketplace*, Elsevier Butterworth-Heinemann, Burlington, 2005.
- [26] Trompenaars, F. and Hampden-Turner, C.: *Riding the Waves of Culture. Understanding Cultural Diversity in Business*, Nicholas Brealey Publishing, London, 1997.
- [27] Zahedi, F. and Bansal, G., "Cultural Signifiers of Web Site Images", *Journal of Management Information Systems*, 28(1), 2011, pp. 147–200.