

GLOCAL PRODUCT DESIGN: A SUSTAINABLE SOLUTION FOR GLOBAL COMPANIES IN REGIONAL AND/OR LOCAL MARKETS

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ABSTRACT:

The concept of Globalization highlights macro-micro relationships and is an alternative to the concept of Globalization. Product design and development is one of the areas in which this concept could be applied. In this research, a case study on mobile phones and the Iran market demonstrates that, while there are differences between Iranian users and users in developed countries, the range of mobile phones available in the Iran market is similar to that in global markets. Moreover, a comparison between two global companies shows that including product specifications based on the characteristics of regional markets leads to business advantages. According to these findings, Glocal Design would be a solution for product design and

development in the era of globalization and in this way, new models could be developed in future research.

Keywords: Product Design and Development, Globalization, Glocalization Concept

1. INTRODUCTION

Globalization as a contemporary issue has been critiqued because of its possibly negative socio-cultural effects on local and regional communities. While globalization is a powerful force in the early 21st century, finding an approach to moderate globalization in regional contexts is considered a major issue in many areas such as sociology, management etc.

The concept of Glocalization represents such a moderating approach. The term Glocal, which is a combination of Global and Local, indicates how this concept represents an attempt to find optimal and sustainable solutions to local and/or regional problems in the era globalization.

In addition, products with cutting edge technologies play an important role at this time. Portable digital devices and consumer electronics facilitate communication regardless of their users' physical locations and create a new digital lifestyle on a global scale. This important role of advanced products and especially consumer electronics in the globalization process shows the importance of this phenomenon, and that related concepts like Glocalization should be considered in product design/development and design research.

This research will, after reviewing the background of Glocalization as seen in different areas, especially sociology focus on product design and development. In the analytical phases of the research, the specific regional market of Iran, user groups and the product domain of mobile phones are studied in order to identify the possible conflicts and problems in current global product design and development. Then two global producers, each with different product design and development strategies, are compared.

This comparison is mainly based on their regional strategies and their success in regional markets. The results of these studies can show the importance of regional contexts and also the advantages or disadvantages of the concept of Glocal product design.

2. BACKGROUND

The concept of Glocalization was first created by Japanese companies in the 70s as they planned to expand to different parts of the world by customizing their products to target regional markets. However, the term Glocal as a combination of Local and Global was first coined by famous sociologist Roland Robertson (Robertson 1995). Glocalization has also been known as a sustainable alternative to the process of globalization, as Localization has itself been defined in terms of Globalization and the two concepts are strongly connected.

Because of the intertwining connection between Modernization, Westernization, Hybridization and Globalization, there are sometimes misunderstandings about the true nature of Globalization (Khondker 2004). Modernization started in the West, and as it spread to other parts of the world, non-western countries tried to find their origins and identities, China being a good example in this regard (King 2004).

The emergence of regional modernity and the revival of indigenous cultures has been known to cause clashes of civilizations by some theoreticians like Huntington in the 90s, a decade in which the disadvantages of Globalization were of greater concern than its possible advantages (Huntington 1996). This pessimism led many theorists to identify more moderate and sustainable alternatives to globalization, such as Glocalization.

Since the mid-90s, many international companies like Sony and Coca Cola have been using the simplified notion "Think Global, Act Local", but Glocalization is more complex (Medeni 2004). The term Globalization is based on a macro-sociological perspective. Globalization directs attention to relationships in a worldwide (global) and macro framework (Khondker 2004). The concept of Localization was created in response to Globalization and is more micro-sociological. The problem of such macro-micro relationships was the main reason for the development of the concept of Glocalization as a more holistic solution.

The birth of the concept of Glocalization in Japan and its effects on Japanese marketing strategies in the 70s shows the importance of this concept in product design and development. Although this concept is not yet a part of the dominant mentality in product design, this research shows there are examples of such a tendency among global companies.

3. CONCEPTUALIZATION

As everyday products shape our lifestyles in different ways and also have a great influence on the modern economy, product design and development is strongly connected to the social, economic and cultural trends in each era. Hence Globalization and related concepts like Glocalization should be incorporated in future product design and development models.

Product designers should seriously consider the users. Understanding the users' real and/or particular needs and/or wants is an essential part of any design project. In the design practice currently followed by many companies and in many industries, the design process mainly takes place in the production arena, not in the markets. Sometimes, a design is presented in various regional markets, regardless of the contextual differences among the regions. During the design/development process of such a product, the required researches are usually limited to one predefined market, and the findings don't cover all the users in regional markets. In fact, this is a problem of macro-micro relationships that can be addressed in terms of concept of Glocalization.

Glocal product design and development could be a more sustainable solution; as a part of Glocalization, at the first stage, Glocal Design would bridge regional/local designers and global producers. The second stage might involve presenting successful regional designs in other markets as a form of cultural exchange, which can enrich design practice on a global scale. Although the second stage is a bit idealistic, the first stage seems more practical. As can be seen in the next sections, taking into consideration the regional contexts brings definite business advantages to some international companies. This paper discusses the need for Glocalization in product design, and the findings are derived from case study on mobile phones and the Iran market.

The Middle East is one of the most important markets for mobile phones. According to Gartner Inc. research news, next to the Asia Pacific region, the Middle East had the highest rate of increase in mobile phone sales in 2006 (Milanesi et al. 2006). Iran, with a population of about 70 million, plays an important role in this market. Some countries in the Asia Pacific region like Japan, China and South Korea are major producers of mobile phones, so some of the mobile phones in global markets are designed in those countries. Japan and South Korea, also have specific identities in product design that distinguish them in developed countries. In contrast, the Middle East region is a "consumer" rather than a producer. The Middle East has great heritages in art, culture and architecture, but currently product design in this region carries no distinct identity.

4. ANALYTICAL FRAMEWORK

Focusing on Iranian users and mobile phones, the present research aims to show some of the disadvantages of the current model of global product design and development.

The analytical phase of this research is based on studies on the Iran market and Iranian users of mobile phones. It involves three main parts: a comparison between the range of products available in global markets and those available in Iran market; a contextual comparison between Iranian users and those in developed countries' users; and a comparison between two global companies with different strategies in regional markets (Figure 1).

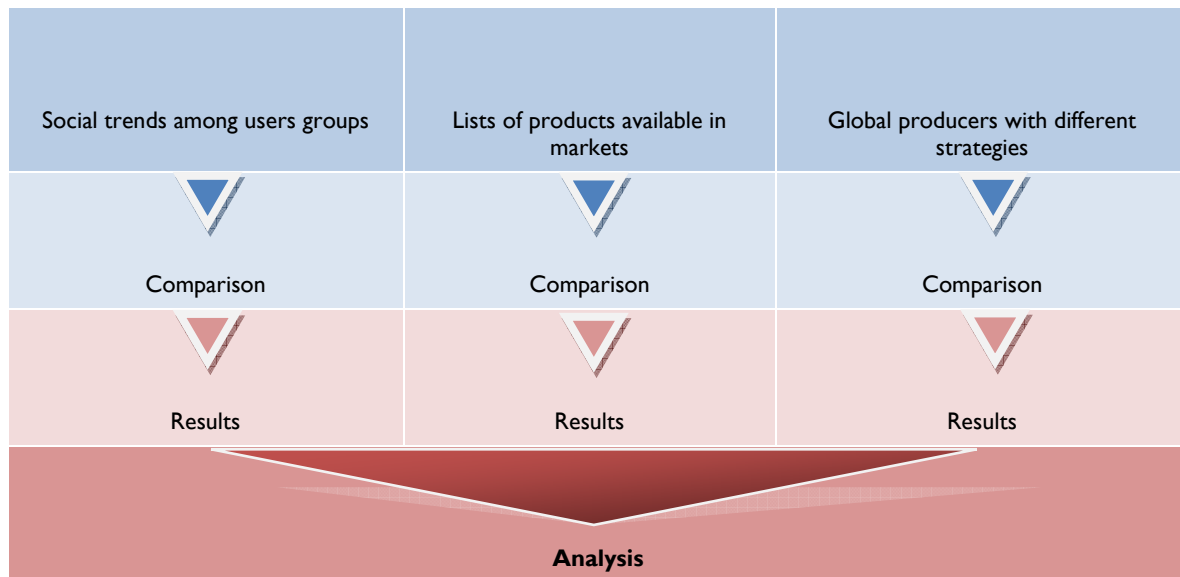


Figure 1: Outline of analytical framework

4. 1. A COMPARISON IN THE RANGE OF AVAILABLE PRODUCTS BETWEEN GLOBAL MARKETS AND THE IRAN MARKET

The findings in this part should answer the following questions:

- Is there any mobile phone which is designed specifically for the Iran market?

- Do Iranian users have access to all the products available in global markets? (Of course, this question is more about major global brands of mobile phones which are currently available in the Iran market too).

In order to identify product ranges, the lists of the products, which are formally offered by representatives of international producers in the Iran market, will be compared with the range of products offered in global markets.

Also, a survey on 15 stores in Shiraz, one of the major cities of Iran, is conducted in order to investigate the product range in a real situation; for instance, when a user decides to buy a mobile phone in one of the major cities in Iran.

4. 2. THE CONTEXTUAL COMPARISON BETWEEN IRANIAN USERS AND THE DEVELOPED COUNTRIES' USERS

This part is to find answers to the basic question below:

- What are the main differences between Iranian users' needs and those of users in developed countries?

The findings of relevant design research projects in developed countries are compared with the results of interviews with 20 users in Tehran randomly selected among mobile phone users.

Also it should be noted that the mobile phones currently marketed in Iran are mostly designed for users in certain developed countries, and their design processes include user research, so mismatches between Iranian users' needs and these mobile phones' features can show many of these differences in users needs.

The interviews were interactive and dynamic. The findings are not limited to the answers to traditional, predefined questions. The interviewees were encouraged to participate in brainstorming and to generate ideas about "their ideal mobile phone". This method revealed some of the interviewees' desires, which sometimes might have been hard to discover through traditional questionnaires.

Because of the nature of the interactive interviews, the information (ideas about the ideal mobile phone) was qualitative. After a deliberating on the data, the interviewees' ideas and needs were classified into a number of categories. The ideas were processed as follows:

- Preparing reports on the brainstorming session.
- Studying all the reports
- Defining of idea categories, these categories were defined in order to cover all the ideas.
- Classifying the ideas, and determining the number of ideas in each category.

After classifying the information gathered, the categories which showed stronger user interest were determined.

4. 3. A COMPARISON BETWEEN TWO GLOBAL COMPANIES WITH DIFFERENT STRATEGIES IN THE REGIONAL MARKETS

While at the previous stage of the study, the research questions were about markets and users, the focus at this analytical stage is mainly on producers. Two companies with quite different shares of mobile phone markets have been chosen for this purpose.

The comparison has both qualitative and quantitative aspects. The parameters of the comparison are:

- Number of design centers in regional markets
- Experiences in launching specific products for regional markets
- Share of market
- Global expansion of company
- Brand identity
- Cultural approach
- Popularity among Iranian users

5. RESULTS

In the present research, the results are given in categories which correspond with the analytical phases:

5. 1. THE SIMILARITY BETWEEN THE RANGE OF AVAILABLE PRODUCTS IN GLOBAL MARKETS AND IRANIAN MARKET

The comparison of the lists of products available in the Iran market with those in global markets shows that there are minor differences. The brands studied were: Nokia, Sony Ericsson, Samsung, Motorola, LG and Siemens.

These minor differences are mainly to do with the timing of product introduction. Some products reach the Middle East market later than markets like Europe or North America.

Also, observation at 15 shops in the downtown area of Shiraz showed that all the products which are listed by representatives of international producers in Iran are available. Although each shop may not have all of the listed products, but finding each of the mobile phones listed, is not so difficult in the downtown area.

5. 2. IRANIAN USERS ARE MORE INDIVIDUALIST THAN USERS IN DEVELOPED COUNTRIES

In 1995, Philips Design initiated a forward-looking and unique research/design project. The project was named "Philips Vision of the Future Project" . One of its main goals was to predict the future of advanced products in the early 21st century (Feiz et al. 1997). One of the most important sources of information of the project was research on socio-cultural trends in developed countries. These trends were:

- Subjectivity
- Sociability
- Exploration
- Connectivity

- Ethics
- Holism

Among these trends, four of them (sociability, connectivity, ethics and holism) are related to aspects of "collectivism" while only one (subjectivity) is associated with "individualism". In contrast, classifying the ideas of a group of 20 Iranian users of mobile phones showed that the categories, which were connected to "collectivism", contain fewer of the users' ideas.

The main categories of the ideas are:

- Category A: Avant-garde: Ideas which address entirely novel products
- Category B: Redesign, These ideas suggest changes in current products.
- Category C: Interaction Design
- Category D: Technological Ideas
- Category E: User Interface Design
- Category F: Social: Ideas which are about the social impact of products
- Category G: Relationships, these ideas consider the relationships of the device with other systems and products.
- Category H: Aesthetic

Firstly, it seems some of these categories are not so related to each other. Also the classification may be vague or irrelevant. However, the most important factor in the process of classification was the distribution of the users' ideas. A user might develop his/her idea by employing a new kind of user interface while another one is more interested in a global virtual environment for mobile phones in which users can share and store their information. So the diversity of the categories arose more from the users' ideas, not from the classification method.

Also, an idea may belong to more than one category. For example, an avant-garde idea about a specialized global network for mobile phones with the capacity to save information in a virtual environment could be classified in both the Avant-garde and the Relationship categories. Figure 2 shows the number of ideas in each category.

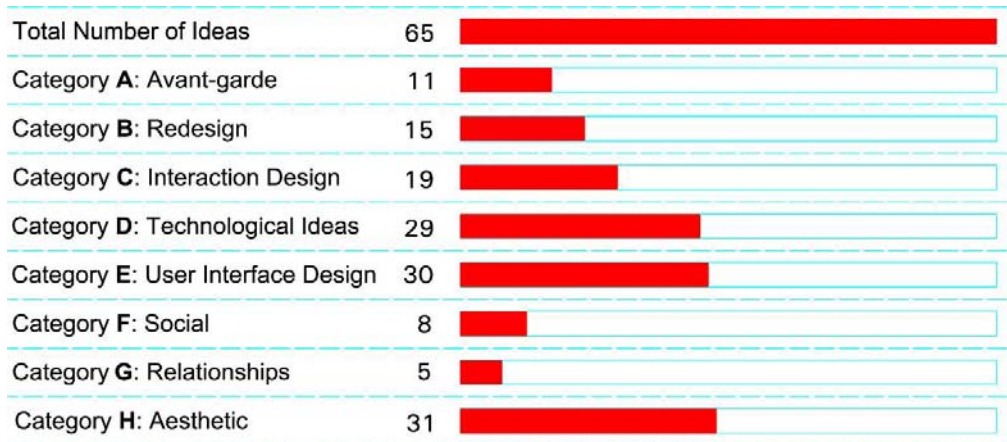


Figure 2: Classification of ideas and number of ideas in each category

In addition, Table 1 shows that how Iranian users tend to “individualism” while most users in developed countries are “collectivist”.

Philips Vision of the Future Project		Ideas of 20 Iranian users of mobile phones
		Category A: Avant-garde (11 Ideas)
	Subjectivity	Category B: Redesign (15 Ideas)
	Exploration	Category C: Interaction Design (19 Ideas)
collectivism	Sociability	Category D: Technological (29 Ideas)
	Connectivity	Category E: User Interface Design (30 Ideas)
	Ethics	Category F: Social (8 Ideas)
	Holism	Category G: Relationships (5 Ideas)
		Category H: Aesthetic (31 Ideas)

Table 1: Different attitudes among Iranian users and users in developed countries

5. 3. A COMPARISON BETWEEN TWO GLOBAL COMPANIES WITH DIFFERENT STRATEGIES IN REGIONAL MARKETS

During the research, especially when conducting the study on the market and the informal interviews with the salespersons and the users, attention was given to the characteristics of the different brands. It seemed that the image of each brand had a strong connection with the brand's design strategy and its share of market.

Nokia and Siemens were selected for this comparison, because of their sharp contrasts in design strategy, share of market and brand identity

5.3.1. NUMBER OF DESIGN CENTERS IN REGIONAL MARKETS

Nokia Design is responsible for Nokia product design projects. Currently, this department has various design/research centers in different regions. The most important ones, according to Nokia's official website, are in Finland, England, Denmark, the United States, China and Japan (Nokia Corp. 2007). In contrast, Designafairs, which is a subsidiary company of Siemens in the field of product design, has two offices in Germany and only one in China (Designafairs 2007).

5.3.2. EXPERIENCES ABOUT LUNCHING SPECIFIC PRODUCTS FOR REGIONAL MARKETS

Nokia 6102, which is a Chinese version of Nokia 6101 (Figure 3), is the result of a regional design. This model is also produced in China (Nokia Corp. 2005). The Nokia 6102 design doesn't address Chinese cultural specifications or motifs directly. Its Chinese identity is mostly in the form of hidden features, for example, red color for the background of menus and more curvy lines in comparison with the original Nokia 6101.



Figure 3: Nokia 6102(left) for the Chinese market and Nokia 6101 (right)

On the other hand, Siemens launched the CL50 for China (Figure 4) with a design which clearly incorporated Asian motifs. This model wasn't successful in China probably because of its small size. However, Siemens introduced it to the European market later (Murtazin 2002).



Figure 4: Siemens CL50

5.3.3. SHARE OF MARKET

According to Gartner Inc., in the third quarter of 2006, Nokia had a 35.1 percent share of the global market, which was the first position worldwide, whereas BenQ and Siemens were in the world's sixth position (Milanesi et al. 2006).

5.3.4. GLOBAL EXPANSION OF COMPANY

Nokia has a presence in almost all countries (Nokia Corp. 2007). In most of the countries around the world Nokia has at least one subsidiary, but Siemens is mainly a European player. According to an official report, Siemens's parent company BSH, has more than 40 subsidiaries worldwide, only about 18 of which are outside Europe (BSH GmbH 2006).

5.3.5. BRAND IDENTITY

A research at the Graduate School of Design Management, Ming Chuan University in Taiwan shows that the brand identity of mobile phones is connected to the share of market of each company (Chen and Yang 2003). The results of the research were based on both graphical and contextual questionnaires and covered five brands: Nokia, Motorola, Ericsson, Siemens, and Acer (BenQ). The conclusion showed that Nokia had the strongest identity, while Siemens and Acer (BenQ) were in the last places.

5.3.6. CULTURAL APPROACH

On the Designafairs official website, the first sentence about this design house is:

“We draw our inspiration from Europe's cultural basement and the knowledge of socio-cultural differences.” (Designafairs 2007)

Although they understand socio-cultural differences, there is an emphasis on Europe's cultural basement. By comparison, according to Eero Miettinen, a senior designer at Nokia Design, designers at the Nokia design center in Helsinki are from 20 different countries:

"Working with designers from 20 different countries and their resulting different cultural backgrounds can only be a good thing." (Jeffrey 2005)

5.3.7. POPULARITY AMONG IRANIAN USERS

An internet survey by a famous internet group in Iran, in which 1900 users participated, shows that Nokia with a popularity rating of 56% is the most popular mobile phone brand in Iran while Siemens popularity rating was only 2% (Jaraaghe Internet Group 2006). (Figure 5)

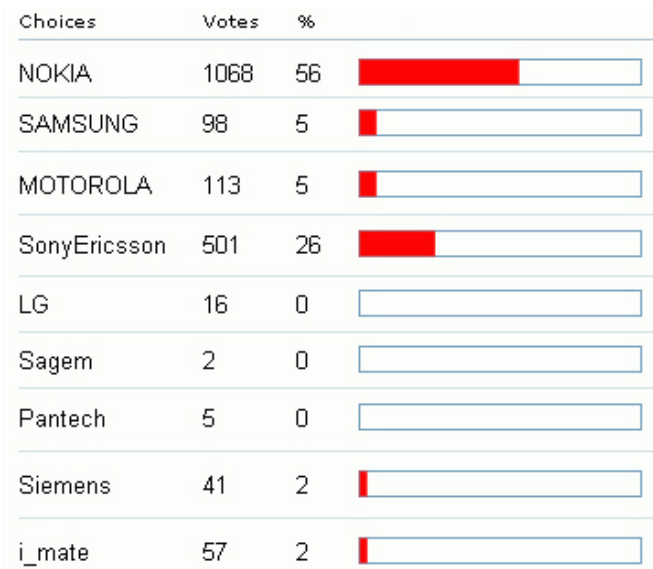


Figure 5: Brand popularity among 1900 Iranian users

This survey shows that in micro-scope (the Iran market) these companies have the same situation as macro-scope (global markets). In other words, global success of a company is affected by its success in various regional markets and vice versa. A summary of the comparison between two global companies, in both macro and micro scopes can be seen in table 2.

		Nokia	(BenQ) Siemens
Macro-Scope, Global Markets	Number of design centers in regional markets	6	2
	Experiences in launching specific products for regional markets	Nokia 6102	Siemens CI50
	Share of market	First Position Worldwide	Sixth Position Worldwide
	Global expansion of company	Worldwide	More Focus on Europe
	Brand identity	First Place	Last Place
	Cultural approach	Global	emphasis on Europe's cultural basement
Micro-Scope, The Iran Market	Popularity among Iranian users	56%	2%

Table 2: summary of the comparison between two global companies

6. DISCUSSION

Although there are socio-cultural variances between Iranian users and the users in developed countries which could affect their lifestyles and also needs, there is no significant difference between the range of models of mobile phones made available in Iran and those made available in global markets. Also there is no specific mobile phone design for Iranian users. According to the Philips research project, while the users in developed countries, because of their more collectivistic attitude, care for their relationships with other users through products and also the social impact of digital devices, Iranian users' main emphasis is on user-product relationships.

In this study, only socio- cultural trends have been considered. However, other areas like usability could be studied in future research to find out further contrasts and problems. For example, in recent years many Iranian users of email services, messenger software and text messaging, use Latin letters for Persian words, which make up what is called by people Penglish. Such unwanted adaptations are results of the current model of global product design and development whereby products are initially designed for specific markets and then introduced to other markets around the world. Such a relationship between Iranian users and global mobile phone producers is clearly a macro-micro relationship and so the concept of Glocalization could be relevant here. Some of the possible solutions based on the concept could be:

- More regional design/research by global companies
- Employing designers from different cultures by global producers
- Developing regional design centers in different markets

Firstly, these solutions seem to be user-centered but the comparison between Nokia and Siemens reveals that more emphasis on regional specifications could lead to business advantages too. China is the only regional market that Nokia has designed a particular product for, and Nokia's regional design centers don't cover all regional markets yet. Therefore, it is difficult to say that Nokia's product design and development strategy is a Glocal one. However, its current success could be the start point for further attempts and is evidence of the feasibility of Glocal Design. Figure 6 shows the relation of the case study on the Iran market (micro- scope), current situation of global markets (macro-scope) and proposed solutions for future.

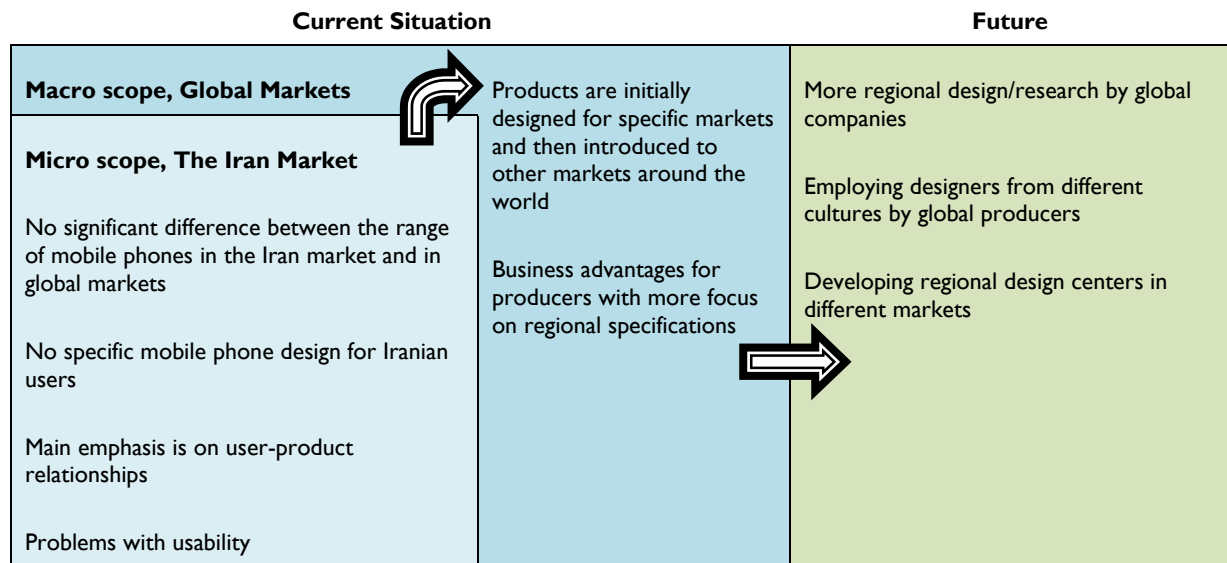


Figure 6: summary of the discussion

7. CONCLUSION

The concept of Glocalization was first conceived and employed by businesses and then has been developed by sociologists as an alternative for Globalization process. Because of its objective content, this concept could be useful in new product design and development processes in the era of Globalization.

In this research the current model of global product design and development has been critiqued. The case study about the Iran market for mobile phones shows that, while there are serious differences between Iranian users and the users in developed countries, these differences have not been considered by global companies. Furthermore, the producers which have more specific strategies for regional markets are more successful in the global competition.

The concept of Glocalization would create a new approach: design in markets instead of design in the production arena. Some general solutions have been mentioned in section 6, Discussion. Nevertheless, to develop a model for Glocal Design, further research and development in design practice is needed. Moreover, manufacturing and economic complexities should be taken into account.

This research discussed the need for the concept Glocalization in contemporary product design and development from two different perspectives. The case study on the specific characteristics of

Iranian users identified a number of problems with current micro-macro relationships. The comparison between two global companies has also focused on the advantages of a macro-micro relationship in which the regional context is taken into consideration. Because of the nature of the two kinds of micro-macro and macro-micro relationships, they are related to the concept of Glocalization.

Glocal Design would benefit both users and producers, and hence, is potentially able to make their relationships more sustainable. Future studies will research on feasible models of Glocal Design. New manufacturing technologies would also help in this process as they enable companies to produce more customized products without causing business disadvantages.

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