

**A BRIEF INTRODUCTION TO THE ULTIMATE
FORM OF MARKET SEGMENTATION:
MASS-CUSTOMISATION**

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ÖZET

1980'den bu yana pazarlama literatürü birbirine zıt iki teoriyi tanıdı, bunlar globalizasyon ve kitlesel bireyselleştirme teorileri. Globalizasyon teorisinin ifadesine göre global müşterilere standart bir ürünle ulaşılmalıdır. Kitlesel bireyselleştirme ise müşterilere bireysel tercihler doğrultusunda üretilmiş ürünlerle ulaşılması gerektiğini savunmaktadır. Bu makale bu bağlamda bu iki teoriyi karşılaştırmaktadır. Bunun yanında bu iki teori pazar bölümlendirme teorisi ışığı altında incelenmiştir.

Anahtar Kelimer : *Globalizasyon, bireyselleştirme, pazar bölümlendirme*

ABSTRACT

Marketing literature has evidenced two opposite theories called globalisation and customisation since 1980s. On the one hand, the basic argument of globalisation is to reach global customers by mainly using worldwide-standardised products. On the other hand, the theory of mass-customisation mainly depends on the idea of reaching individuals by offering customised products in accordance with their unique preferences. This paper compares both theories in terms of their contrasting arguments. Moreover, the theory of globalisation and customisation are also examined in line with the theory of market segmentation.

Keywords : *Globalisation, customisation, market segmentation*

INTRODUCTION

According to McKenna (1991; 66-67), conventional production and marketing approaches focus on reducing time to market for their state-of-the-art products. Nevertheless, today's strategic challenge not only requires focusing on reducing time-to-market, but also an ability to recognize and manage fragmented demand patterns.

During the last decade, marketing literature has evidenced introduction of new marketing paradigms varying on their names such as one-to-one marketing, real time marketing, mega marketing, database marketing and so on. Although their names are different, all of them propose similar methods to deal with the target customers. In other words, the common denominator for all these approaches is almost the same; that is customisation of the marketing elements in accordance with the needs and wants of the individual customer.

The idea of customisation is not a newborn concept and has been practised for a long time. In fact, all types of craft production may be categorised as customisation. However, the concept of mass-customisation was introduced to the academia by Pine (1993) by mainly relying on anecdotal evidences. This new concept later has been expanded as a tool for many other marketing paradigms as mentioned earlier.

This study aims to introduce mass-customisation theory in brief, vis-à-vis mass-production, mass-marketing and globalisation. The theory of mass-customisation is also investigated in the context of the theory of market segmentation.

1. THE THEORY OF MARKET SEGMENTATION AND MASS-CUSTOMISATION

Since 1956 when Smith (1956) first introduced the theory of market segmentation, marketing literature has witnessed a fierce debate about efficient market segmentation techniques. Smith (1956) acknowledged that segmentation is based on the developments of the demand side of the market and it represents rational and precise adjustments of product, price, promotion and distribution elements to consumer requirements. Nevertheless, in spite of the developments in segmentation techniques, most of the existing segmentation models are based on demographic and psychographic variables that identify who the customers are. Examples of such identifier variables include sex, age of the customer or lifestyle in consumer markets, and size of the customer or industry group in business

markets. The market segmentation models describe who the customers are in each segment in the hope or the belief that the resulting segments seek different benefits. But mainly due to the poor correlation between market segments and sought benefits, when it comes to operationally serving each customer, such segmentation schemes are not considered very helpful (Horovitz & Kumar, 1996).

According to Kotler et al. (1996; 15), marketing process is all about determining needs and wants of the target markets and delivering the required satisfaction more effectively and efficiently than the competitors. Based on this knowledge, it may be argued that the marketing process is a twofold concept: the determination of needs and wants of the customers, and delivering the required level of satisfaction to the customers. Thus, prior to targeting a segment, it is necessary to segment the markets. Kotler (2000; 257) acknowledged that the discussions of market segmentation begin with mass-market and follow on to segmented markets, niche markets, micro-markets, and finally, individual markets.

The concept of mass marketing assumes an existing homogeneity in terms of needs and wants of the customers; thus, a stable demand becomes an indispensable part of the market homogeneity. Mass-marketing in fact relies on mass-production, which was ushered by Henry Ford who proclaimed, “*you can have any colour as long as it’s black*”. This proclamation was not mainly based on the cost related considerations but black was the fastest drying paint (Davis, 1996; 183). Thus, the primary importance was attached to the speed of the production lines rather than market requirements. Therefore, it may be concluded that the primary aim of mass-production and its complimentary mass-marketing approach is to develop, produce, and market acceptable or even high quality goods and services at prices that everyone can afford.

Similar assumptions had led Levitt (1983) to introduce his theory of *globalisation of markets*. Levitt (1983) argued that advances in technology – especially the expansion of satellite TV transmission– and improvements in travel drive people to appreciate world products. Producing a standardised product for the whole globe lowers the cost and so the prices. Then he remarks the anticipated conclusion; for the sake of consistent quality at low prices, people of the world would sacrifice their preferences to have *modernity’s allurements* (Levitt, 1983; 65)

Levitt (1983) has in fact, introduced a new segmentation technique termed *global segments*, and a large number of anecdotal, prescriptive and empirical studies have examined this new model of market segmentation. Nevertheless, based on the theory of globalisation, the main argument to be

discussed was standardisation of marketing program across cultures (e.g. Whitelock & Pimblett, 1997).

Culture is considered to be the most persistent barrier against Levitt's (1983) argument (Buzzell, 1968; Whitelock, 1987; Boddewyn & Grosse, 1995). Nevertheless, it is argued that cultural impact on standardised elements of the expanded marketing mix is subject to the product's position in a given cultural environment. Therefore, the relevant literature is dominated by the arguments that standardising industrial products is easier than that of consumer goods (Whitelock, 1987; Jain, 1989; Baalbaki & Malhotra, 1993). The rationale behind this argument is that demand for such products is mainly functional, leading to a more homogeneous demand pattern and allowing standardisation of marketing elements across borders. These arguments and the rationales are supported by empirical and Meta analyses (Ozsomer, Bodur & Cavusgil, 1991; Bardakci & Whitelock, 2000). Based on these findings, proponents of product standardisation concluded that culture-free products can easily be standardised across cultures. In contrast, culture bound products need adaptation to become successful across countries. Therefore, international marketing and global marketing literature have reached a consensus that sole standardisation of the marketing program –particularly, the product element— cannot be an efficient strategy for all products, but tailoring is necessary to local conditions.

Within the last two decades of the 20th century, business world has evidenced the exposure of computer aided manufacturing and communication techniques, and more importantly, the commercialisation of computer so the Internet. These technological advances have led some marketing scholars to introduce the dreams of Alvin Toffler (1980; 194-205) and Stan Davis (1996; 177) to marketing academia as a new theory for market segmentation, *Mass-Customisation* which is also called *Finer Segmentation* (Davis, 1996; Kara & Kaynak, 1997).

One of the earliest idea of treating customisation as a model of segmentation comes from Davis (1996; 177), Davis defines mass customisation as follows:

“Mass-customisation of markets means that the same large number of customers can be reached as in the mass-market of the individual economy and simultaneously they can be treated individually as in the customised markets of the pre-industrial economies...The ultimate logic of ever-finer differentiation of

markets is markets of one, that is, meeting the tailored needs of individual customers and so in a mass-basis”.

Based on these arguments, the most recent and perhaps the ultimate type of market segmentation model offers the promise of changing forever the fundamental principles of designing, making, selling, and servicing the philosophy of everyday merchandise (Westbrook & Williamson, 1993). Mass-customisation views each customer as a base on which markets are segmented, necessitating the adjustment of the product to the individual's needs. Thus this new marketing paradigm can be viewed as a postmodernist concept because the idea of postmodernist marketing similarly, argues for a need to treat each customer differently due to the differences in personal needs and preferences (i.e., Brown, 1992; Thomas, 1997).

2. FACTORS DRIVING THE THEORY OF MASS-CUSTOMISATION

In accordance with the teachings of the contemporary marketing school, the driver to implement mass-customisation should be justified by the demand side of the equation rather than production capabilities of the machinery of the existing plants. The main reason to implement mass-customisation from this point of view is argued to be the demand fragmentation in the market. According to Kotler (1989), demand fragmentation has reached a peak where even niches are too broad to satisfy. Similarly, Pine (1993; 53-77) commented that the niche markets are becoming markets that have power shifted to buyers who demand higher quality goods that closely match individual desires. This view is also supported by Kotha (1995), Webster (1996) and many other authors, reaching a consensus that a meaningful segmentation of markets is almost impossible due to the demand fragmentation.

One of the easiest ways to observe demand fragmentation is to analyse product proliferation in the market. According to a report of Federal Reserve Bank of Dallas (1998), the number of available vehicle models in the 1970s was 140. By the 1990s, it had reached 260. Vehicle styles had increased to 1212 models from 654 over the same period. The number of TV screen sizes has increased to 15 from 5, the number of Levi's Jean styles has reached 70 from 41 and the range of breakfast cereals has increased to 340 from 140 in the US market as given in Table 1.

Table 1: More Choices Than Ever.

Item	Early 70s	Late 90s	% Change
Vehicle models	140	260	1,2
Vehicle styles	654	1212	5,58
Personal computer models	0	400	4
Software titles	0	250000	2500
Web sites	0	4757394	47573,94
Movie releases	267	458	1,91
Airports	11261	18292	70,31
Magazine titles	339	790	4,51
New book titles	40350	77446	370,96
Community colleges	886	1762	8,76
Amusement parks	362	1174	8,12
TV screen sizes	5	15	0,1
Houston TV channels	5	185	1,8
Radio broadcast stations	7038	12458	54,2
McDonald's menu items	13	43	0,3
KFC menu items	7	14	0,07
Frito-Lay chips varieties	10	78	0,68
Breakfast cereals	160	340	1,8
Pop-Tarts	3	29	0,26
National soft drink brands	20	87	0,67
Bottled water brands	16	50	0,34
Milk types	4	19	0,15
Colgate toothpastes	2	17	0,15
Mouthwashes	15	66	0,51
Dental flosses	12	64	0,52
Prescription drugs	6131	7563	14,32
Over-the-counter pain relievers	17	141	1,24
Levi's jean styles	41	70	0,29
Running shoe styles	5	285	2,8
Women's hosiery styles	5	90	0,85
Contact lens types	1	36	0,35
Bicycle types	8	31	0,23

Adapted from: Federal Reserve Bank Of Dallas, 1998 Annual Report

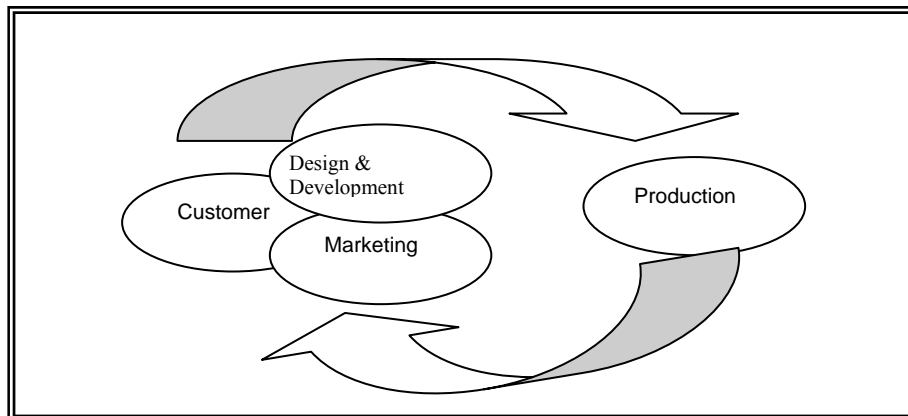
The main reason for product proliferation may be that most businesses know that they cannot provide all things to all people and thus product proliferation is used as a differentiation strategy to please different market segments. Product proliferation thus, can be considered as an attempt by manufacturers to find some mutually acceptable halfway house, which seeks to increase aspects of customer choice while avoiding the high cost of product tailoring (Bardakci & Whitelock, 2001; 4). In other words, within the boundaries of this assumption, for a given customer who makes the given purchase, some of the offers may be 'too big' or 'too short' but the hope is that there is a product that is 'just right' (Iacobuci et al., 1994). In line with this argument Whitelock & Pimblett (1997) acknowledged that the product is bought due to the absence of more appropriate ones that is caused by a failure to recognise and exploit real differences in taste. This might represent lost opportunity but in fact, is difficult to measure (Harris, 1985).

As a result of the priorities of the mass-marketing and mass-customisation approaches, it may be concluded that while mass-marketing attempts to reach as many customers as possible, mass-customisation aims to satisfy as many needs as possible. Thus, Peppers & Rogers (1997, 20-21) call the former 'aggregate market competition' and the latter 'customer driven competition'. Based on the primary aim of the aggregate market competition, marketing globalisation can be considered as an extension of it, because it assumes that within the global segments there are uniformity between needs and desires emphasising standardised products regardless of the individual's unique needs and desires.

Mass-customisation, as a segmentation technique may be analysed with the rationale that, the interest of it is to satisfy one customer at a time, implying that each customer is a segment. In contrast to the conventional segmentation techniques, which are based on trying to reach as many customers as possible while satisfying a limited number of basic needs, mass-customisation approach focuses on satisfying almost every needs of an individual customer (Peppers & Rogers, 1997; 20-23).

When the primary objective becomes satisfying as many needs as possible, individual customers must be positioned at the beginning of the firm's activity sequence as shown in Figure 1. Based on this logic, each segment is invited to participate in the final design of the production process. Thus the whole process is initiated by the individual customer. By this way, the customer becomes "procumer" [producer+consumer] (Moffat, 1990). Because when the customer is so involved into the design process by initiating it, it is difficult to point who the producer is and who the customer actually is.

Figure 1: Customer Driven Competition's Activity Sequence



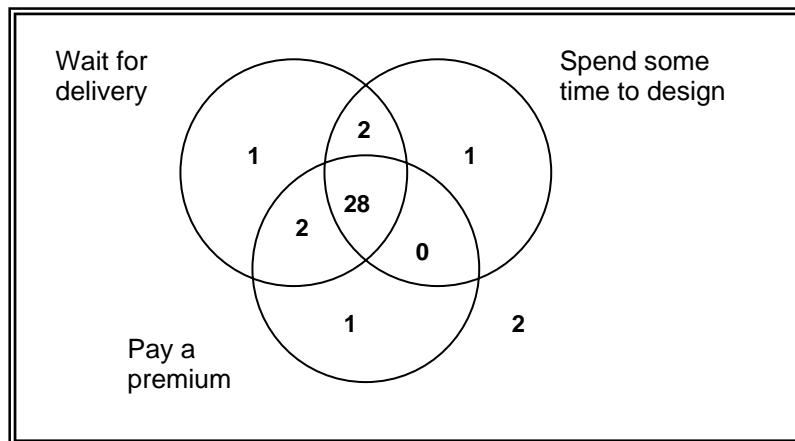
Adapted from: Bardakci, A. & Whitelock, J. (2001) “An Examination Of Customer’s Readiness For Mass-Customisation: An Exploratory Study Of The Turkish Car Market”; p.3

3. CUSTOMERS’ READINESS FOR MASS-CUSTOMISATION

The relevant marketing literature does not provide a theoretical framework to assess the customers’ readiness for mass-customisation. However, based on the pioneering applications, a threefold operational customers’ readiness framework may be identified (Bardakci & Whitelock; 2003). First, although theoretical debates suggest the possibility of producing customised products at the price of mass-produced products, however, practical evidences indicate that mass-customised products are more expensive. Second, customisable products are not available at the point of sale thus; the product cannot be delivered to the customer at the time of purchase. Finally, participation in the design process requires that the customers should spend some time ‘designing’ the required product.

Based on this framework, Bardakci & Whitelock (2001) conducted a survey in 1998 in İskilip a province of the city of Çorum. Examination of their findings revealed that the Turkish car market, at least in terms of the sample, seems ready to accept customised cars. A total of 28 (76.68%) respondents were willing to accept all three considerations as depicted in Figure 2.

Figure 2: The Distribution Of Willingness Across The Three Main Inconveniences



Adapted from: Bardakci, A. & Whitelock, J. (2001) “An Examination Of Customer’s Readiness For Mass-Customisation: An Exploratory Study Of The Turkish Car Market” p.11

In accordance with their findings, it may be argued that Levitt’s (1983) proposition in terms of customers’ willingness to relinquish their preferences for the sake of consistent quality at low prices is refuted, and his proposition seems invalid since it seems that this proposition is far from reflecting the reality for the car buying decision at least for this sample. Rather than relinquishing their preferences, customers are willing to pay a premium to have the exact product they want (the mean for those who are willing to pay a premium is US\$521.85; CI%95: US\$482.20- US\$830.19).

Bardakci and Whitelock (2001) also examined the advantages and disadvantages of mass-customisation in the eyes of the customer. Their findings support the arguments put forward in favour for mass-customisation. As can be seen from Table-2, mass-customisation is preferred mainly because customers would get exactly what they want. The second most important advantage is found as not to pay for attributes that are considered to be unnecessary for the customers. This advantage cannot be found in standardised products, but customers are expected to make trade-offs between required and non-required attributes. On the other hand, one of the main drawbacks of mass customisation is the inability to test drive the exact product, that is found not to be so important, since the mean here is minimum in comparison with the advantages of mass-customisation.

Table 2: Perceived advantages and disadvantages of mass-customisation
(5=completely agree, 1= completely disagree)

Examined advantages & disadvantages	N	Mean	Std. D.	CI %95
I would prefer customised car since I would get exactly what I want	37	4,30	0,14	4,02-4,58
I would prefer customised car since I would not have to pay attributes that are unnecessary for me	37	4,16	1,12	3,79-4,54
I would prefer customised car since I would get opportunity to update every detail over time	36	3,94	1,07	3,58-4,31
I would prefer customised car since it provides me price flexibility	37	3,92	0,92	3,61-4,23
I would not prefer customised car since I would not find opportunity to test drive the car before delivery	36	2,68	1,27	2,43-3,29

Adapted from: Bardakci, A. & Whitelock, J. (2001) “An Examination Of Customer’s Readiness For Mass-Customisation: An Exploratory Study Of The Turkish Car Market”, p.12

CONCLUSIONS

In line with the discussions, it may be argued that the production has reached an era that tailoring products for individuals is possible with the help of computer-aided design and computer-aided manufacturing. Based on the improvements in the supply side, product proliferation is evaluated both as an indicator for the demand fragmentation and as an acceptance of such fragmentation.

Demand fragmentation has led the scholars to propose segmenting the markets on individual basis. It is expected that implementation of mass-customisation would eliminate the customer sacrifice gap since the product is not going to be ‘just right’ for the consumer but it is going to be the required ‘exact product’. Furthermore, this new paradigm would lead to recognise and exploit real differences in taste and thus the potential hazards of lost opportunity of standardised products would be minimised.

Although mass-customisation strategy has its own drawbacks vis-à-vis mass marketing and standardisation, mass-customisation seems the logical next step in market segmentation. Adoption of mass-customisation would allow developing effective marketing strategies over global rivals. Thus mass-customisation would eliminate the cultural impacts. However, adoption of mass-customisation does not imply to relinquish the conventional mass marketing and segmented marketing approaches, but it refers to add mass-

customisation approach, which would enrich the competitiveness, to the current approaches.

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