MAO-Model of Audience Development:
Some Theoretical Elaborations and Practical Consequences

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Abstract
To increase participation in any arts market, management has to target a specific segment of consumers who will react homogeneously on the implemented marketing strategy. The MAO-model of audience development (Wiggins 2004) provides a global framework that indicates what variables can be used to segment consumers, how these variables affect participation, and how these variables are related to the marketing mix. The model assumes that participants as well as non-participants experience three types of barriers that determine the probability of participation: Motivation, Ability, and Opportunity to participate. However, the conceptualization and operationalization of these barriers is rather unelaborated. Furthermore, the model does not describe a clustering procedure to arrive at market segments that are in line with the principles of the MAO-model. In this paper we will attend to both shortcomings.

Keywords
Market Segmentation, Motivation, Ability, Opportunity, Operationalization.

Introduction
An important goal of marketing of culture is to enlarge the number of people who visit the cultural activity (Noordman, 2000). To increase participation in any arts market, management has to target a specific segment of consumers who will react homogeneously on the implemented marketing strategy. In order to accomplish this, the organization distinguishes between different segments making up the market, chooses several of these segments to focus on, and develops a marketing mix for each of these segments to meet the needs of that specific segment (Kotler & Andreasen, 1996). Regarding this practice, the most basic question is: “On the basis of what variables should consumers be clustered into market segments?” Most studies in marketing of culture adapt the common marketing practice and use variables such as geographic, demographic, psycho-graphic, and behavioral variables (Kotler & Armstrong, 2001). However, there is no theoretical framework, except common sense, that indicates how these variables affect participation, and how these variables are related to the marketing mix. The MAO-model of audience development (Wiggins 2004) however, provides a global framework that goes into these issues.

The MAO-model assumes that consumers (participants as well as non-participants) experience three types of barriers to a specific extent that determine the probability of participation. The barriers are (Wiggins 2004):

1. The motivation to participate. Defined as the desire to act
The ability to participate. Defined as having the skills or proficiency to act.
The opportunity to participate. Defined as the absence of environmental barriers to action.

Some consumers have overcome all barriers, and have a large probability of participation. Other consumers experience some barriers to a certain extent. Consequently, they have a smaller probability of participation.

A fundamental premise of the MAO-model is that market segments should be constructed by crossing the three barriers. In order to illustrate this principle, let’s assume, for the sake of simplicity, that consumers can be divided into high versus low on each of the barriers. By crossing the three barriers, eight segments can be distinguished (see also Table 1).

Table 1: The Eight Segments of the MAO-Model of Audience Development

<table>
<thead>
<tr>
<th>motivation</th>
<th>Low</th>
<th>high</th>
</tr>
</thead>
<tbody>
<tr>
<td>ability</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>opportunity low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>opportunity high</td>
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The main purpose of marketing segmentation is to cluster consumers regarding the extent as well as the type of barrier experienced. The MAO-model can be used to select the most interesting segments, since the segments will differ in terms of size, as well as the feasibility of the cultural organization to decrease the barriers experienced successfully, given its budgetary restrictions and time perspective. Furthermore, the MAO-model indicates what barriers are experienced by a selected segment. The marketing mix targeted at a specific segment should be able to minimize the barriers experienced. So the probability of participation increases. Consequently, the model indicates directly how the marketing mix can be optimized. When, for example, a particular segment lacks behind in ability to participate due to physical constraints, a barrier that may be experienced by elderly people (70+), the cultural organization can decrease this barrier by organizing a trip to the cultural organization. This tactic is insufficient if the segment lacks the motivation to participate.

Although the MAO-model provides an interesting framework to guide the market segmentation process, it remains vague at, at least, two points. Firstly, the conceptualization and operationalization of the constructs Motivation, Ability, and Opportunity is rather unelaborated. And secondly, the model does not describe or recommend a clustering procedure to arrive at market segments that can be characterized in terms of high or low on Motivation, Ability, and Opportunity that are in line with the principles of the MAO-model. In this paper we will attend to both weaknesses in order to provide a (solid) base to apply the model to marketing of cultural organizations as well as to encourage further research and refinements of the MAO-model of audience development.

Defining and Operationalizing Motivation, Ability, and Opportunity

In the paper of Wiggins (2004) a global definition of motivation, ability and opportunity is mentioned. These definitions are an interesting starting point, however they are to vague for a valid operationalization of the constructs. In this paper we will use insight of the information
processing models applied in advertising research (Petty & Cacioppo 1981; MacInnis & Jaworsky, 1989), as well as insight of the cultural sociological perspective and consumer behavior literature to conceptualize the barriers more precisely.

**Motivation to Participate**

Motivation is defined as the desire to participate (Wiggins, 2004). This definition is very similar to the definition of motivation in the advertising processing model of MacInnis & Jaworski (1989). However, the desire to process an advertising regards a different behavioral domain compared to participating in a cultural domain. Consequently, different antecedents may affect the motivation to participate. But what antecedents affect motivation?

Motivation is a process variable that may result from the activation of beliefs about the cultural participation (Stokmans, 2003; Fazio, 1990). The beliefs a consumer holds about participating in the cultural domain, is known as the attitude toward the cultural behavior. This attitude consists of hedonic as well as utilitarian consequences consumers expect (Batra & Athola, 1990; Voss et al 2003). It can be regarded as an approximation of the expected value or utility of the cultural activity (Stokmans, 2004; Antonides, 1989). If a consumer holds mainly negative associations (beliefs) with the cultural activity, the expected utility of participating in the cultural activity will be low. Consequently the consumer has a small probability to participate. (An elaborate discussion on the relation between attitude and behavior is provided by Ajzen, 1991; Ajzen & Driver, 1992). The attitude toward a cultural domain can be operationalized as a global attitude. A global attitude reflects the opinion of a consumer about the cultural activity by means of a semantic differential (Osgood et al, 1957). The wording to be used in the semantic differential is still object of study (see for example Voss et al, 2003), and may even differ between cultural domains. However, Table 2 provides a example of the scale that worked well in our research (reading behavior, attending a museum, listening to music, going to the movies).

**Table 2:**

An Example of an Operationalization of the Global Attitude and Involvement

<table>
<thead>
<tr>
<th>global attitude</th>
<th>Hedonic</th>
<th>involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>utilitarian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>significant – unsignificant</td>
<td>enjoyable – annoying</td>
<td>important - unimportant</td>
</tr>
<tr>
<td>pointless - effective</td>
<td>frustrating – relaxing</td>
<td>irrelevant - relevant</td>
</tr>
<tr>
<td>Valuable - worthless</td>
<td>nice - not nice</td>
<td>exciting - unexciting</td>
</tr>
<tr>
<td>beneficial - not beneficial</td>
<td>appealing - unappealing</td>
<td>uninteresting - interesting</td>
</tr>
<tr>
<td>trivial - fundamental</td>
<td>amusing - not amusing</td>
<td>boring - fascinating</td>
</tr>
</tbody>
</table>

The extend to which a situation is regarded as appropriate to engage in specific cultural behavior, differs between individuals. According to Bourdieu’s theory (1984; 1985), the habitus of an individual reflects this difference. But, how should this aspect of the habitus be operationalized? If one opts for the different kinds of capital (economic, cultural, and social), motivation is conceptualized in terms of resources what is an aspect of ability. However, according to attitude theory, the probability that an individual's attitude towards a cultural behavior is activated in any situation depends on the extent the individual perceives the cultural domain as relevant to accomplish personal goals and values. The more relevant the cultural
domain is perceived, the larger the probability that the attitude toward the cultural domain is activated in any situation (e.g. Howard-Pitney et al, 1986; Lavine et al, 1996). Consequently, a second antecedent of motivation regards the ‘mechanism’ that triggers the attitude in a particular situation. This mechanism reflects the personal relevance of the cultural domain to the individual. Involvement, as conceptualized in the cognitive approach (Laaksonen, 1994), regards the personal relevance (Zaichkowsky, 1984; Peter & Olson, 1987). The involvement scale of Zaickowsky (1984) provides an operationalization of this construct. In Table 2 some items of this scale are given.

A motivational construct what is of special interest if the cultural activity is related to a cognitive task, is need for cognition. Need for cognition denotes a general tendency to engage in and enjoy effortful cognitive endeavors (Cacioppo & Petty, 1982). People who score high on need for cognition are generally more motivated to process effortful or complex tasks (Cacioppo et al, 1996) and will, therefore, prefer ‘complex’ cultural activities (activities that need cognitive elaboration in order to interpret the cultural symbols, Stokmans 2003). Need for cognition is operationalized by the Need for Cognition Scale. A full description of this scale is given in Cacioppo et al., 1996. Examples of items of this scale are: 'I would prefer complex to simple problems'; 'The idea of relying on thought to make my way to the top appeals to me'; 'The notion of thinking abstractly is appealing to me'.

Next to these cognitive indicators of motivation, one can focus on past behavior as an indicator of the extent an individual is interested in the cultural activity. Quite a lot of cultural activities have a counterpart in terms of recordings (music, film, tv-productions, photo’s, special interest books, and magazines). Furthermore, the media (TV, radio, print media, and the internet) attend to cultural domains. On the basis of consumer research, one can assume that consumers who engage in products that are related to the cultural domain (recording and/or media) are interested into the cultural domain (Bloch et al 1986), and are motivated to participate into the cultural domain.

**Ability to Participate**

The ability to participate is defined as having the skills or proficiency to act (Wiggins, 2004). In our opinion, this barrier should encompass all personal resources of a consumer, and not only the mental capacities. This construct is related to the resources, identified in cultural sociological research, that affects the level of participation. Ganzeboom’s theory of cultural participation (1984, 1989) indicates three resources that are important, namely time budget, financial budget and cultural competence (mental resources to interpret the cultural activity). Next to the resources Ganzeboom identifies, the physical capacities of a person can be regarded as a resource. So, in general four types of resources can be used to conceptualize ability, namely financial resources, time budget, physical capacities and mental resources. Each resource will be elaborated on successively.

**Financial Resources**

This resource regards the amount of money available to spend on the cultural activity. This resource is related to income. Ganzeboom’s theory hypothesizes that the larger the financial resources the larger the probability that a cultural activity is attended. However, the effect of income on the frequency of participation is marginal and most of the time not significant (Bakker, 1992; Ganzeboom, 1989). However, this research regards the Dutch situation in which participation in high culture is heavily subsidized by the government.
Time Budget

This resource regards the amount of leisure time available as well as the dissipation of leisure time. According to Ganzebooms theory, a positive relation is expected between the amount of leisure time and the probability of participation. But research indicates that this effect is only marginal and often not significant (Kraaykamp, 1993; Bakker 1992, Stokmans, 1999).

Physical Capacities

Is an individual physically fit to visit the cultural activity? This resource is of special interest if the target audience regards senior citizens.

Mental Resources

Has an individual the mental capacities to enjoy the cultural activity? This resource is related to the construct “cultural capital” (Bourdieu, 1984), cultural competence (Ganzeboom, 1984, 1989), and ‘ability’ in the information processing perspective (Petty & Cacioppo, 1981, MacInnis & Jaworski, 1989). The mental resource regards the skill or proficiency to interpret cultural symbols (MacInnis & Jaworski, 1989). Lack of this resource implies that the knowledge structures necessary to perform more complex operations to come to a representation of the cultural artifact either do not exist or cannot be accessed. According to the cognitive-psychological information processing perspective as well as the Ganzeboom theory, readers strive to match the (perceived) complexity of a cultural activity and the individual’s mental resource to interpret the activity. So, individuals with large mental resources will prefer more complex cultural activities (activities that need cognitive elaboration in order to interpret the cultural symbols, Stokmans 2003).

Ganzeboom (1984) suggests two antecedents of mental resources: General intellectual capacities that affect the cognitive capacity to process information, and acquired knowledge and skills regarding the cultural domain. Similar indicators are mentioned by other researchers: intelligence/educational (Anderson & Jolson, 1980) and product knowledge or experience (Anderson & Jolson, 1980; Mackenzie, 1986).

The general intellectual capacities are operationalized as educational level. The domain specific knowledge can be operationalized by for example 20 multiple-choice questions (with for example four answer categories) about the cultural domain. Another operationalization we often use, is a recall test of artist, distributors, and/or critics active in the cultural domain. These names can be regarded as brand names (Leemans, 1994; Miesen 1999; Caldwell, 2003) and in marketing research product knowledge is often operationalized by means of brand name recall (Zinkhan, Lockander & Leigh, 1986; Singh, Rothschild & Churchill, 1988).

All these resources should be related to the resources needed to participate in the cultural domain. In the case of high culture, it is assumed that the amount of mental resource needed in order to enjoy the participation is rather high (Ganzeboom, 1984, 1989). Lack of these resources can hinder participation.

The Opportunity to Participate

The opportunity to participate is defined as the absence of environmental barriers to action (Wiggins, 2004). In other words: If a consumer is motivated to participate and if he/she has the resources, will he/she visit this particular cultural activity (within that particular cultural domain)
or will he/she prefer another cultural activity in the cultural domain? In this perspective, the opportunity component relates to fitness for use, or perceived quality. The American Society for Quality defines quality as: “the total of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs” (Kotler & Armstrong, 2001: 681). The perceived quality of a cultural product is on the one hand affected by all marketing instruments and on the other hand by the expectations (needs) of the consumer. In the MAO-model, the needs of a consumer are identified by the components ‘motivation’ and ‘ability’. Consequently, we will conceptualize opportunity as consumers’ evaluation of the components of the marketing mix as implemented. The opportunities to participate can be differentiated into Price, Place, Product, and Promotion. Each will be discussed successively.

**Price**

In the perceived quality literature, price can signal different cues that are related to the perceived quality (Nagle & Holden, 1995). Firstly, price indicated the financial costs. The higher the costs, the less the cultural product is fit for consumption (especially if similar cultural products are offered for a lower price). Secondly, price may signal the quality of the product. This may also count for cultural products. A high price can signal the exclusiveness of the cultural participation. And according to Bourdieu’s theory, exclusiveness is related to the prestige attached to the cultural product.

However, both effects assume that the consumer is aware of the actual price. This may only be the case for consumers who already participate. To summarize, we identified three indicators for the opportunity ‘price’:

- price knowledge
- perceived costs
- perceived value.

Price knowledge can best be asked for by an open-ended question regarding the price level of the cultural participation. If a cultural organization offers cultural artifacts that differ in price, one can ask the consumer to indicate the average price of the offerings, the maximum price and the minimum price of the offerings.

The extent price is regarded as a barrier, is reflected in the indicators ‘perceived costs’ and ‘perceived value’. It is very hard to operationalize perceived cost, without implicitly referring to perceived value. If one asks for example whether the actual price is appropriate, the answer reflects both costs and value, since an appropriate price reflects ‘value for money’. Consequently, we recommend to ask several questions referring to the appropriateness of the actual price, which should be mentioned explicitly. Only, in that case the barrier of the actual price can be identified.

**Place**

From the perspective of perceived quality, the marketing mix instrument ‘place’ refers to the appropriateness of the location. Again, appropriateness can only be established if consumers are familiar with the location of the cultural organization. So first of all, familiarity with the location should be asked for. One can ask whether the consumer knows where the cultural organization is located (What is the address, the city block), as well as how often the consumer visits the city block or the area surrounding the cultural organization. Secondly, the appropriateness of the location should be determined. Here a problem arises if consumers are
not familiar with the area, which will probably the case for people who didn’t visit the cultural organization jet or are not familiar with that part of town. In order to overcome this problem two kinds of questions can be asked for: Firstly, questions regarding the perceived appropriateness of different characteristics of the location. These questions will only answered by respondents who indicated they are familiar with the location (a filtering question). And secondly, questions regarding the importance of the characteristics of the location in order to visit it. All respondents can answer these questions. In the cluster analysis, only the importance questions are used to cluster the respondent. The perceived appropriateness is used as an indicator for the extent the location characteristics may be regarded as a barrier. (The management of the cultural organization may also indicate the perceived appropriateness. However this should be regarded as the second best option, since management may have a different perception of the appropriateness of the location than the general public).

*Product*

Regarding the marketing mix instrument ‘product’, one should differentiate between the core product (the cultural artifact itself), and the augmented product (all facilities that improve the enjoyment of the cultural act, such as good chairs, restaurant, etc.).

The appropriateness of the core product can be approximated by the attitude toward the genre of cultural artifacts offered by the cultural organization. This attitude is more specific that the attitude toward the cultural domain, which is regarded as an indicator of motivation. If the cultural organization offers different genres of the cultural domain, the difference between the two attitudes becomes blurred. However, if the cultural organization offers all genres of the cultural domain, the core product will not be a barrier to participate. The attitude toward the core product can be operationalized by the same semantic differential as the attitude toward the cultural domain.

A second operationalization of the appropriateness of the core product regards the relative preference for the genres offered by the cultural organization compared to all genres of the cultural domain. A consumer can be asked to rate each genre in terms of preference on a five-point scale (with as poles: like very much — dislike very much). Another option is to rank all genres from most preferred to least preferred. Since this is a very difficult question to answer for most respondent, one can ask to indicate the three most preferred genres with a number (1 is most preferred, ECT.). If one assumes that all respondents have an attitude and/or a preference toward the different genres offered, all respondents can answer these questions. This will not be the case for the augmented product.

Regarding the augmented product, a consumer can only indicate the appropriateness of it, if he/she is familiar with the choices made by the management of the specific cultural organization. Therefore, three types of questions should be asked for in the case of the augmented product:

- familiarity with different aspects of the augmented product
- perceived appropriateness of different aspects of the augmented product
- importance of the different aspects of the augmented product.

The familiarity question is a filtering question for the perceived appropriateness. Management may indicate the appropriateness, however, discrepancy with consumers perceptions of the appropriateness can be expected. Regarding the augmented product, the importance questions are used to cluster consumers into segments.
Promotion

The marketing instrument ‘promotion’ requires a slightly different approach, since the appropriateness of promotion as perceived by a consumer is not indicative as a barrier to participate. However, if one focuses on the effects of all promotional campaigns, one gets some indications of the extent the promotion has had the intended effects. Important effect variables can be related to hierarchy of effect models. In all hierarchy of effect model, three phases are distinguished (Belch & Belch, 2004):

S Cognition. This phase regards the knowledge the consumer has about the cultural organization. Indicators are: (top of mind) awareness, and the image of the cultural organization (Poiesz, 1989.). The image of the cultural organization can be asked for by a number of semantic differentials referring to perceived characteristics, such as boring-fascinating, pleasant - formal, ordinary - elitist, and varied - unvaried.

S Affect. This phase refers to the liking and/or preference of the cultural organization. Indicators are: the attitude toward the cultural organization, and the relative preference of the cultural organization in the cultural domain.

S Conation, which refers to the behavioral aspects regarding the cultural organization. Indicators are: intention to visit the organization within the coming six month (year), and the number of visits realized in for example the past five years.

Now all the components of the MAO-model are operationalized, the next step is to determine target groups on the basis of these variables. The main objective of this step is that individuals with similar MAO-profiles are categorized into the same segment under the condition that this categorization is in line with the principles of the MAO-model.

Determining Target Groups in Line with the MAO-Model

One of the advantages of the MAO-model is that it relates Motivation, Ability, and Opportunity, by which the target groups are identified, directly to the barriers to overcome in order to increase participation. However, the identification of target groups as proposed by the MAO-model is not as straightforward as it seems. Firstly, Motivation, Ability, and Opportunity are each conceptualized as multi-dimensional constructs; each component has several indicators that are not necessarily highly correlated. Furthermore, quite a lot of indicators are operationalized by several questions. So the first step is item-analysis, in which the internal consistency (Cronbach’s alpha) of the items of one indicator is established. This analysis has two purposes:

1. Reduce the number of variables that reflect a MAO-component. Each indicator should preferably be reflected by one variable.
2. Exclude items that are inconsistent with other items measuring the same indicator.

The next step in the analysis is to create clusters on the basis of the indicators of the MAO-components. However, the standard clustering procedure in market segmentation includes all active variables (those measuring Motivation, Ability, and Opportunity) in one analysis to determine the segments. This practice will not automatically result in market segments that represent a different combination of Motivation, Ability and Opportunity to participate. Consequently, it becomes more difficult to determine what marketing mix is most appropriate for
a specific segment. Therefore, we recommend three separate cluster analyses, one for each MAO-component. The cluster procedure we recommend is Ward’s procedure, since this procedure minimizes variations within clusters and maximizes variations between clusters. This clustering procedure corresponds nicely with the principles of the MAO-model.

The number of clusters to be distinguished should be low. Preliminary research indicates that three clusters are appropriate most of the time. To examine the appropriateness of the number of clusters selected, one should look at the size of the clusters, as well as the extent to which the clusters differ on the indicators of this particular MAO-component. This difference can be examined by an ANOVA if the indicator approximates the normal distribution, or a Kruskall-Wallis if the indicator does not approximate the normal distribution.

The last step in the analyses, is crossing the segments differentiated by the clustering of each of the MAO-components. This results in 27 segments if three clusters are differentiated in each MAO-component. Now, the most promising target groups can be identified and described by means of the MAO components and passive variables. Demographic variables as well as media use variables are very useful in describing the target groups.

**Conclusion**

This paper should be regarded as a preliminary conceptualization and operationalization of the MAO-components as well as how target segments can be identified in line with the MAO-model. Our research group has experimented with the MAO-model and results indicate that the model is a promising one. However, some theoretical as well as practical problems still exist. Firstly, the conceptualization of the component opportunity. It was already indicated that the perceived quality literature provides another conceptualization. However, we didn’t explore this conceptualization yet.

Secondly, according to the MAO-model the components regard really different concepts. However, in conceptualizing the components one can notice that sometimes the difference is rather small. For example, the components motivation and opportunity both use an attitude as an indicator (attitude toward the cultural domain versus attitude toward the genres the cultural organization offers). How different are these attitudes, especially for consumers how are not very active in the cultural domain? Consequently, the discriminant validity of the components is treated. However, most of these problems can be solved by an arbitrary decision. In consequence, the model provides a practicable guide for market segmentation of arts markets.

**Notes**

1 Another conceptualization of opportunity may be perceived quality. In that case SERVEQUAL (Parasuraman et al, 1988) and SERVPREF (Cronin and Taylor, 1992) can be used to conceptualize and operationalize the opportunity component.
References

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