Original Article

Database marketing practices and opportunities in a newly emerging African market

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ABSTRACT In this paper, qualitative research is conducted to gain insight into the current application and potential of database marketing in a newly emerging African economy, Tanzania. It is found that database marketing applications in Tanzania are currently limited, but that there is potential. The most promising industries are banking, insurance firms and the mobile phone sector. However, the development of database marketing in Tanzania may be hindered by lack of suitable data warehouses, lack of statistical knowledge, and insufficient knowledge on the application of client data and statistical output for marketing applications. The paper discusses the implications for Western firms.

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INTRODUCTION

The database marketing concept has rapidly been adopted by firms across the Western world and the more advanced Asian markets. The gains are obvious. Extensive client databases, derived from transactional production databases, enable marketers to track customer behaviour, including their reactions to marketing programmes.¹ This allows selecting prospects for specific marketing offers,² enhances opportunities for customer base segmentation¹ and allows the calculation of the direct and indirect financial returns of marketing activities, a topic that has recently received much attention.^{3–5}

The database marketing literature has concentrated on Western countries or other developed economies. This is not surprising, as the more general academic business literature has also largely ignored newly emerging economies, particularly in Africa.⁶ A surprising aspect herein is that the African economies have globally been among the most rapidly growing economies over the past two decades.⁷ Furthermore, it is likely that database marketing practices in emerging economies will differ from those in more developed markets, implying relevance of research.

Below we concentrate on the adoption of database marketing in an African market,

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Tanzania. The following questions will be addressed:

- Which sectors of industry and/or government administration are most receptive towards database marketing?
- To what extent is database marketing applied in newly emerging markets with low current levels of economic development?
- What is the potential of database marketing in newly emerging markets with low current levels of economic development?
- What are potential caveats of applying database marketing in such economies?

Tanzania is globally rated among the poorest countries, taking the 153rd position on the United Nations Human Development Index. The gross domestic product (GDP) per head of the population has, however, been increasing gradually over the last two decades. Moreover, a middle class has emerged, and is growing in and around the country's largest and foremost city, Dar es Salam. Development of the country relies strongly on this middle class and their economic activities. The latter can obviously be influenced by (database) marketing initiatives of Tanzanian firms. Hence, the issues addressed in this study may have important societal implications for Tanzania.

A managerial implication of the conducted research is that information on database marketing activities and the potential of activities can be useful for local and international companies that are operating in newly emerging economies. Few Western firms are currently active in Africa, and few of the Western firms with a presence on the continent will be applying database marketing. Nevertheless, the high economic growth rate in sub-Saharan Africa over the last two decades implies a growing potential in Africa for marketing, including database marketing activities. A second

managerial implication is that the research reported below may be relevant for enhancing understanding of database marketing in Western countries. Assessing the application of database marketing concepts outside the regions in which these were developed may provide information for Western countries that went unnoticed previously.⁶

The findings are derived through qualitative focus group discussions. The research approach is presented in the next section of the paper. After presenting the results of the conducted focus group discussions, the paper concludes with guidelines for local firms or Western entrants aiming to exploit the database marketing concept in Tanzania and in other newly emerging economies, and suggestions for further research.

RESEARCH APPROACH

As a result of the lack of research into the adoption of database marketing across newly emerging economies, this paper has chosen an open-ended qualitative approach. The research was conducted after four lectures given to MSc and MBA students in 2007 and 2009 at Mzumbe University in the city of Morogoro (Tanzania). Each session consisted of approximately 25 participants. Most focus group participants have prior business experience. The lectures were part of courses in (1) Business Administration, (2) Marketing, and (3) Entrepreneurship, implying that there is diversity in the business experience of the students participating in the focus group after the lecture. Moreover, the focus group participants have business experience in the country's most developed city, Dar es Salam, and in the Morogoro region, which is near Dar es Salam, but also in the economically less developed lag zone of Tanzania. This further enhances diversity. Diversity of respondents is desirable for qualitative research, as it will lead to a more

complete view of the different aspects of a researched issue than a random sample.⁸

As for the research approach, students were informed that they would receive a guest lecture from a European lecturer on the topic of segmentation. The lecture concentrated on customer base segmentation in the Netherlands. First, the participating students were introduced to the basic concepts of segmentation. Next, ideas were transposed to customer base segmentation. The data required for customer base segmentation were then discussed. Next, students were introduced to recency, frequency and monetary-based (RFM) segmentation⁹ and segmentation using K-means cluster analysis in SPSS.¹⁰

After each of the four conducted lectures, a 30–60 min interactive focus group discussion was held. The students participating in the focus groups assessed the extent to which the discussed issues are applied, raised or relevant for Tanzanian firms. First, the focus group participants were asked about the application of customer base segmentation at their workplaces. Next, they were questioned about marketing applications resulting from customer base segmentation. Note that customer base segmentation was chosen as the starting point of the focus group discussion, because during preliminary conversations with lecturers at Mzumbe University pointed out that this is the most likely use of database marketing by Tanzanian firms. The focus group discussion then focused on the availability of client data for customer base segmentation. Next, the discussion was directed in a more general direction towards other database marketing applications. This was carried out by asking the focus group participants whether their employer used the client data for other purposes, in addition to customer base segmentation, for example prospect selection, predicting customer churn.

Clearly, the qualitative focus group approach that we applied differs strongly from traditional focus group discussions. Most importantly, the participants were prepared in a university classroom setting. From preliminary discussions with lecturers at Mzumbe University, it became clear that the focus group participants would be unfamiliar with database marketing terminology. Therefore, an introduction to the terminology and to the basic concepts of database marketing was necessary to start the focus group discussions. This introduction made it possible to assess to what extent Western database marketing concepts are also applied in Tanzanian firms. A formulation of the Tanzanian level of database marketing development in Western terms enhances the understandability of the results for Western managers and researchers.

A potential caveat of this approach is that participants may be inclined to interpret the database marketing practices of their employers in terms of a Western perspective, neglecting the context-specific local applications. To overcome this potential bias, participants were probed to assess to what extent database marketing practices at their workplace differed from the Western practices discussed during the lecture. Database marketing practices, which are more specific for the Tanzanian context, were indeed mentioned by the focus group participants, sometimes before probing and also after probing. An example includes the distinctions among micro-credit, regular retail and business customers in banking, discussed in the results section of the paper.

A second difference between the approach conducted for this research and more traditional focus group discussions includes the size of the groups. Our focus groups consisted of about 25 participants each, while about 10 participants are more conventional. This resulted from the classroom setting we used. The relatively

large size of the groups does not seem to be a major issue, as all participants working in firms that apply database marketing gave their input to the discussion. Participants employed by firms not active in database marketing did not provide much input, only pointing out the inactivity of their employers in this area. This in itself is an interesting finding, and is reported below. In general, larger focus groups may be useful when there is little a priori knowledge on the selection of participants that can provide much information on the topic being researched.

The manner in which we conducted the focus group can be interesting for future research conducted in areas in which respondents are unfamiliar with the terminology of the issue being researched. Moreover, in newly emerging economies, it is often difficult to find appropriate data.⁶ Therefore, this additional means of finding respondents may provide information to others that would be more difficult or impossible to retrieve by more conventional qualitative or quantitative research approaches. For many Western scholars who teach at universities in Africa and in other newly emerging economies,¹¹ this channel is a promising source of data from such countries. However, when using the approach discussed above, the caveats should be considered carefully. Probes need to be used to find out whether practices different from those addressed in the lecture, which preceded the focus group, are also conducted. Another important issue herein is that focus groups should be preceded by discussions with experts to gain insight into the current local practices in terms of the issue under investigation. This will provide the necessary information for the topics that should be covered in the lecture, preventing the selection of topics that are more advanced than those of interest in the researched country.

FINDINGS OF THE FOCUS GROUP DISCUSSIONS

Tanzanian sectors of industry using database marketing

In Tanzania, about 80 per cent of the population are subsistence farmers. In addition to this, there are small entrepreneurial businesses, usually run by several members of a family. Nevertheless, firms that are more similar to those in Western economies are also found, particularly in banking, the insurance sector and the mobile phone market. Geographically, these firms are mostly found in the economically more developed city of Dar es Salam and the area in the geographic vicinity of this city.

In the Dar es Salam region, banks cater to consumers and firms, in a similar manner as in the Western economies. Banks in the lag zones generally provide micro-credit, enabling members of low-income groups to set up small-scale business initiatives. The profits made on micro-credit are relatively low, and hence database marketing is not conducted in this particular sector of banking. However, focus group participants pointed out that the banks operating in the Dar es Salam region are applying client data for both retail clients and larger businesses. In this region, insurance companies are also applying client data for database marketing purposes.

In addition to these two sectors, database marketing is only used by mobile phone companies, an industry that is also well developed across Eastern Africa. Most notable, the mobile phone firm Zain, which was previously called CelTel, currently operates across seven Middle Eastern countries and 15 sub-Saharan countries. Celtel was globally the first mobile phone company to charge the same fees for national and international calls. Moreover, national and international calling was conducted in exactly the same manner via Celtel. Zain continues to manage this

truly international mobile network. With a turnover of close to US\$300 million in 2008, Zain-Tanzania is ranked among the top-500 firms in Africa. A few other Tanzanian mobile phone firms are also positioned in this top 500.⁷ According to the focus group participants employed in this sector, mobile phone companies apply database marketing across the entire country, and also in the lag zone.

Focus group participants employed in other sectors, such as tourism and government, pointed out that they do not apply database marketing. Thus, below we will concentrate on banks, insurance firms and the mobile phone sector. Nevertheless, the discussion will also have implications for other sectors of industry (see Conclusion).

Current database marketing practices in Tanzania

When asked about current database marketing practices at their employers, focus group participants working at banks, insurance firms and mobile phone companies first mentioned customer base segmentation. After probing the participants, it became clear that Tanzanian firms use three types of variables for this purpose: geographical variables, monetary value and sector of industry. Moreover, all segmentation solutions seem to be based on a single variable. Below we discuss this in more detail.

In each of the four conducted focus group discussions, employees of various Tanzanian banks were present. They mentioned that some banks use geographic segmentation solutions, distinguishing among (1) the Dar es Salam area, (2) other relatively developed areas, and (3) the economically less developed lag zone. Different products are offered by branches in different geographical regions. Branches in the lag zone offer only micro-credit products. In other zones, a mix of products is offered, as a result of more diverse needs in the market.

Second, some banks use a distinction among the following three types of clients: micro-credit clients, retail clients and business clients. Focus group participants also mentioned that banks using this client-type segmentation aim to develop products catering to the specific needs of each of the three groups.

Finally, a form of value-based segmentation is used by Tanzanian banks. The segmentation variable is similar to the monetary value variable in RFM analysis.⁹ This value-based segmentation mainly provides marketers with insight into the diversity of the firm's clients on the focal variable. Focus group participants from banks, applying this form of segmentation, indicated that value-based segmentation is currently not used for other purposes.

Reactions from employees of insurance firms and mobile phone companies suggest that in these sectors only value-based segmentation is used. Again, this segmentation is only used to gain insight into customer diversity and not for more concrete marketing applications, such as offering different products to different segments.

Potential database marketing applications in Tanzania

Focus group participants were probed about the utility of using additional variables in their customer base segmentation solutions. Bank and insurance company employees pointed out that a logical extension of the monetary value-based approach would be including other RFM variables. Focus group participants pointed out that the RFM approach provides a more applicable framework than cluster analysis, because of a lack of relevant statistical knowledge and a lack of experience with statistical programmes such as SPSS and SAS. Other possible extensions were not mentioned. It has to be pointed out that the lecture, which was held before conducting the focus group discussion, addressed customer

base segmentation, and focused on RFM-based segmentation and the use of cluster analysis for generating segmentation solutions. Thus, these database marketing opportunities were recognised after the relevant information had been provided.

Focus group participants were asked whether client data were used for marketing purposes other than customer base segmentation. After used terms were explained, focus group participants indicated that other database applications are used in Tanzania. The participants were probed about the detection of cross- and deep-sell opportunities. Moreover, they were asked whether data were used to detect customer churn. No confirmations were given to the probes. Again, focus group participants deemed the other applications that were pointed out to be very useful.

The detecting of clients with high churn probabilities was recognised as particularly salient for the mobile phone sector. In this sector, prospect selection for cross- or deep-sell purposes was deemed to be less useful, as most mobile phone clients in Tanzania are single-product clients. For banks and insurance firms, where customer churn is less problematic than in the mobile phone sector and clients may have multiple product portfolios, prospect selection was deemed salient, apart from the detection of churn. Focus group participants were not probed about more advanced database marketing practices, such as lifetime value estimation, data fusion with survey data or setting up what-if types of experiments with customers. Such issues are probably too advanced, given current database marketing practices in Tanzania.

Potential caveats for Tanzanian database marketing applications

Focus group participants mentioned various problems that would be encountered in the application of database marketing across Tanzanian firms. First, lack of data and low data accessibility would be a problem. Most

firms do not have data warehouses. Second, lack of statistical knowledge would hinder the application of database marketing. Third, lack of knowledge regarding the application of client data for marketing was considered a potential caveat by many focus group participants. Fourth, many participants pointed out that the newly emerging Tanzanian market is much more dynamic than its more saturated Western counterparts. Consumers are constantly switching between firms, are often changing addresses without providing information on the new address, the employment situation of consumers is less stable and more firms are entering or leaving the market. Focus group participants wondered whether database marketing applications, such as customer base segmentation solutions, would be useful in such a volatile environment. Obviously, this is an interesting issue for further research initiatives. Focus group participants did, however, recognise the utility of models predicting churn under these conditions.

Interestingly, financial constraints were not mentioned as a threat for the development of database marketing, except in the context of the micro-credit sector. Apparently, banks, insurance firms and mobile phone companies in countries with a low GDP per head of the population, also have the means to develop at least less sophisticated database marketing activities. These sectors are among the financially most developed markets across the African continent.⁹

CONCLUSION AND DISCUSSION

This paper set out to investigate database marketing practices in newly emerging economies. We investigated such practices in an African market with a low GDP per head of the population, Tanzania. Given the innovativeness of the research goal, we applied a qualitative focus group approach.

We found that in Tanzania, database marketing is applied by banks, insurance firms and mobile phone companies. The only used application seems to be customer base segmentation. Moreover, such segmentations are based on a single variable, and are used for (1) developing and offering differentiated products catering to the needs of various segments and (2) assessing the monetary value of the firm's customers. Nevertheless, focus group participants recognised the opportunities of other database marketing applications. Therefore, these modest beginnings may form the starting point for further developments. However, threats to developments in database marketing were also mentioned, mainly lack of suitable data, lack of statistical knowledge and lack of knowledge on the marketing implications of client data and the results of statistical analysis. These potential caveats need to be considered when applying database marketing at Tanzanian firms. Financial constraints seem to be less problematic.

Table 1 summarises the main findings of the research. This table provides insight into the current status of database marketing in Tanzania. It concentrates on companies in which such activities are currently performed, that is banks, insurance firms and mobile phone companies. For such firms, Table 1 provides information regarding the most logical next steps to be conducted in the database marketing arena, along with the potential problems that one may encounter in this quest.

Table 1 can also be used by local firms, which currently do not use database marketing, or foreign firms entering the Tanzanian market. The content of Table 1 suggests that the first logical step may be the application of a single-variable segmentation solution. This is also the first step taken by the more advanced firms in Tanzania. Perhaps this is because of the comprehensibility of single-variable segmentation solutions, implying that they are more likely to be accepted and implemented by firms that are currently unfamiliar with database marketing. After

Table 1: Summary of the main findings

<i>Sector</i>	<i>Current application</i>	<i>Current marketing application</i>	<i>Database marketing in the near future</i>	<i>Threats for the development of database marketing</i>
Banking	Client base segmentation using Geographical data Monetary value Sector of industry	Developing and offering products for/to different segments Assessing monetary value of client	Developing multiple variable segmentation solutions Prospect selection Modeling churn	For all sectors of industry the following threats are relevant: Lack of data warehouses Lack of statistical knowledge Lack of knowledge on marketing applications of client data and the output of statistical analysis Market dynamics
Insurance	Client base segmentation using monetary value	Assessing monetary value of client	Developing multiple variable segmentation solutions Prospect selection Modelling churn	
Mobile phone	Client base segmentation using monetary value	Assessing monetary value of client	Developing multiple variable segmentation solutions Modelling churn Customer-based segmentation	
Other sectors	None	None		

accepting the relatively simple applications of database marketing, firms and their employees are better prepared for accepting and tackling more challenging database marketing issues. Starting simple allows firms to pick the low-hanging fruits first, an approach that has also been advised for Western companies applying database marketing or other innovations.¹²

As a limitation, we point out that the findings in Table 1 relate to one small African economy. We suggest that these findings are unlikely to be relevant for the economically more developed countries in the continent, that is, South Africa and the North African countries. Nevertheless, the findings reported in this paper are more relevant for most other sub-Saharan countries than previously reported findings on database marketing. Tanzania is economically more similar to other sub-Saharan African countries, with the exception of South Africa, than countries in which previous research was conducted. This also applies for other key variables, such as technological development and national culture. Moreover, the finding that database marketing is best developed in banking, insurance firms and mobile phone companies is likely to apply for other sub-Saharan countries. This relatively high level of development also applies for database marketing in these sectors of industry in Western nations. The fact that this is found to occur in such diverse nation as Western nations and Tanzania suggests generalisability of the result.¹³

DIRECTIONS FOR FUTURE RESEARCH

In addition to the managerial implications discussed above, the reported results also call for further research. Obviously, it should be investigated whether the findings in Tanzania also apply in other newly emerging economies, particularly in other sub-Saharan countries. We argued above that this is likely to be the case.

Nevertheless, precise information on cross-national differences and similarities over sub-Saharan countries can only be gained by conducting cross-national research.

A second obvious issue includes the possible effects of the global credit crisis. This may lead to cut-backs on marketing investments, which often occur during recessions.¹⁴ Such cut-backs may also occur for database marketing. However, the effects of the credit crisis may be less strong for African firms, as these firms were previously criticised for conservative borrowing practices. This may currently have positive consequences.⁷

Another direction for further research is triggered by the low importance of financial constraints in the development of database marketing in banking, the insurance sector and the mobile phone market. Perhaps financial constraints do explain why database marketing is not used in other Tanzanian sectors of industry, or they may become salient when more sophisticated and expensive database marketing activities are started up. In most other sectors of industry in Africa, the turnover was lower in 2008 than in banking, insurance and the mobile phone sector.⁷ This issue requires investigation in Tanzania and in other newly emerging economies.

In addition to this, further research may address the threats to database marketing that are reported in Table 1. It should be investigated whether and perhaps how these challenges can be met. Particularly interesting is the effect of dynamics in the market on the application of database marketing. Investigating this issue may lead to insights for Western firms relevant for optimising their database marketing strategies and tactics. This is not unthinkable, as testing Western approaches, models, theories or techniques in a new context may lead to findings that are also salient for Western markets.¹³

Lastly, we conducted a highly innovative focus group discussion approach, which was deemed suitable for the research at hand.

Further research could evaluate the utility of this approach for research conducted in contexts in which little is known about the relevant terminology of the issue under investigation, or where it is difficult to find respondents. Applicability of our approach may also be studied in other settings.

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