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Sequential Method of Client Portfolio Optimization

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Abstract: The study proposes a technique to optimize work with clients in order to create a client-oriented business through the use of analytical marketing methods. The following tools are proposed to optimize the customer portfolio: ABC analysis of consumer purchases and producer's profits as the, study of the client life cycle in terms of purchases and profits; modified BKG matrices of customer purchases and profits. To develop a customer interaction strategy based on the results of the proposed algorithm, the researcher developed a matrix for client base consolidated analysis.

Key words: Client-oriented business, ABC analysis, client life cycle, portfolio methods, BKG, marketing methods

INTRODUCTION

In a dynamically developing market, contradictions arise between a company's strive for stability and constant changes in competition, legislation and consumer demands, etc. Relative stability can be ensured by forming a circle of loyal customers if the organization adopts relationship marketing. A firm's functioning based on the principles of client-oriented business requires the development and implementation of a customer base management mechanism. Marketing tools and methods, specifically ABC analysis, life cycle theory and portfolio methods can become the basis for such mechanism.

Using ABC analysis as a method of managerial decision support, it is necessary to include the highest possible number of indicators in the analysis, at least sales (purchases) and profits. This requirement is based on the fact that analysis of several indicators allows customers can change groups, thus reducing the risk of loss for example of the most significant clients from group "A". For example, transition to another group may be due to the establishment of significant discounts for a large volume of purchases.

Mapping and analysis of customer life cycles allows monitoring the dynamics of the relationship with the client, perform a comparative analysis of said dynamics for a number of customers and predict the change in indicators.

The use of portfolio methods allows reflecting the positions of clients both in terms of purchases and on the profit generated for the producer.

The consolidated analysis of the client base summarizes the results of all the methods used and makes it possible to make an informed decision on the strategy of interaction with each client.

Literature review: In the developed consumer society, characterized by excessive supply of goods and services, individualized consumer demand becomes the main generator of economic progress (Bondarenko and Semernikova, 2013), paving the way for the transition to relationship marketing.

Relationship marketing is defined as "stablishing, developing and maintaining successful relational exchanges" (Morgan and Hunt, 1994). The goal of relationship marketing is to build long-term mutually beneficial relationships with company's key market partners (consumers, suppliers, distributors) form their long-term preferences and sustainable interrelations. Relationship marketing helps to establish close economic, technical and social ties between partners, reducing transaction costs and saving time (Kotler and Keller, 2006). Therefore, it contributes to the client retention and creates a large client capital.

Client capital is the sum (excluding all costs) of the lifetime value of all the firm's clients (Kotler and Keller, 2006). Customer retention is based on high satisfaction which is why Sewell and Brown state: "If you want to maintain your business, give customers exactly what they ask for without any hesitation. If you do at least a little less, you can just do nothing because you will still lose their favor" (Sewell and Brown, 2010). According to Hammer (2003) "For every level of business, customer orientation is the most important condition for success".

Forming the client capital or client portfolio is based on the creation of a customer database, its analysis and optimization of the portfolio. In our opinion, it is reasonable to use the ABC analysis that has been shown to work well for analyzing diverse indicators affected by different intrafirm policies (Ng, 2007) as well as customer life cycle analysis and portfolio methods as analytical tools for this purpose. This toolkit is designed and used for both scientific and practical purposes but the greatest effect can be obtained by its joint use.

The ABC analysis is based on Pareto rule and allows dividing the customers into groups by importance for the companies. Final groups are formed based on at least the data on the volume of purchases and profits from the client whilst it is possible to use other indicators for example, on accounts receivable, etc. In the classical version, there are three groups: "A", "B" and "C" with shares of 80, 15 and 5%, respectively. In practice, classical proportions are often sidestepped and groups are formed from customers with indicators of the same order of magnitude. Based on the results of the ABC analysis, an interaction strategy is developed for each group.

Another tool for forming the client portfolio is the client's life cycle. According to Golubkov (1998), life cycle is defined by the change in the indicators of sales and profit over time and consists of the following stages: start of sales (introduction to the market), growth, maturity and decline. Arenkov and Bagiev (2001) and Harding and Walton (2008) as well as other researchers note the importance of researching the client life cycle. The analysis of the customer's life cycle makes it possible to determine the dynamics of their purchases and profits. Having, supplemented this data with a forecast, one can support a decision on the interaction strategy for each customer.

Portfolio methods, in particular, various modifications of the BCG matrix are also used to substantiate the strategy and determine the prospects for client interaction. Harding and Walton (2008) write about the significance of the BCG Matrix for substantiating marketing decisions. Kotler, Berger and Bickhoff state: "A diversified company can use the BCG matrix to carefully analyze its portfolio of directions or firms and plan investments in the most productive areas of its business" (Kotler *et al*., 2012). This applies equally to customers whose positions are reflected in the matrix.

For customers who are positioned as 'cash cows', there is no need to revise the interaction strategy as they are stable procurement leaders. 'Stars' require attention and support which consists of constant refinement and anticipation of their needs, offers of new products with the aim of increasing the volume of purchases. The same close interaction is necessary for 'difficult children'. The strategy of interaction with 'dogs' is ambiguous. If the client is positioned in this quadrant at the initial stages of the life cycle, it is necessary to monitor their dynamics and support positive developments. The position of the 'dog' at the decline stage assumes either a rejection of cooperation or working with residual demand if production facilities permit.

Each of these tools characterizes an aspect of the customer portfolio. ABC-analysis points out the importance of the customer to the manufacturer; life cycle monitors the dynamics of purchases or profits from the client; BCG matrix shows the strategic position of the client. And only the systematic analysis allows making an informed management decision on the interaction strategy within the framework of relationship marketing.

MATERIALS AND METHODS

Data and methods

Research goal: The goal of this study is to develop a strategy that will increase client loyalty by forming client groups based on their significance for the firm and the choosing correct interaction for each group of customers. The interaction strategy is based on the principles of client orientation and depends on the role of the client in shaping the income and profit of the company.

Sample and data collection: The research can use the data on company's sales volume over two adjacent analyzed periods for example, 2 years, quarters, months. The frequency of the analysis depends on the dynamics of the environment and such factors as the level of competition, changes in infrastructure, legal and social environment and so on.

The current study uses yearly sales and profits data from a wholesale company with retail companies as clients.

RESULTS AND DISCUSSION

Analysis and results: The analysis starts with ABC analysis of client base's sales volume. It is illustrated in Table 1. This step is followed by the ABC analysis of profits generated by each client (Table 2).

This example demonstrates how client 2 transitions from group B-A due to a larger share in the company's profit despite the fact that the purchases are twice as small as for Customers 1, 6 and 7. Analyzing only the volume of purchases, the manufacturer would not include one of the most profitable customers in Group A.

As the next stage of managing the client base, it is advisable to use the client life-cycle analysis. Monetary rather than natural units should be used when constructing the life cycle of the client. The graph should reflect not only the volume of purchases but also the profit generated by the client as well as the cost of interaction. Such approach will allow visually reflecting the efficiency of interaction with the consumer. However, in this case a life cycle graph should be created separately for each client. To conduct a comparative analysis of

Table 1: ABC analysis results for the client base's sales volume

Clients	Sales volume	Cumulative share (%)	Client's total (%)	Groups
1	1020.34	29.36	29.36	A
6	947.26	27.26	56.62	A
7	745.15	21.44	78.06	A
2	367.17	10.57	88.63	B
4	159.14	4.58	93.21	B
5	88.95	2.56	95.77	B
8	85.06	2.45	98.22	B
3	23.78	0.68	98.90	C
10	22.55	0.65	99.55	C
9	15.67	0.45	100.00	C
Total	3475.07	100.00	-	-

Table 2: ABC analysis results for the profits from the client base

Clients	Profit	Client's total (%)	Cumulative share (%)	Groups
6	5.00	27.23	27.23	A
1	4.89	26.63	53.87	A
7	4.00	21.79	75.65	A
2	2.11	11.49	87.15	A
4	0.92	5.01	92.16	B
5	0.51	2.78	94.93	B
8	0.49	2.67	97.60	B
3	0.18	0.98	98.58	C
10	0.15	0.82	99.40	C
9	0.11	0.60	100.00	C
Total	18.36	100.00	-	-

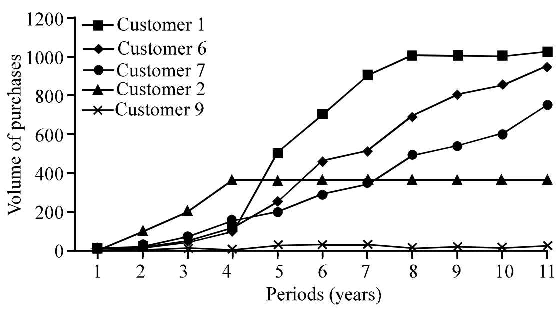

Fig. 1: Client's life cycles

customer's life cycles, cycles of the clients from one group can be mapped together. A life cycle of one of the clients of Group C is illustrated in Fig. 1.

If the dynamics of the purchase volume demonstrates the growing needs of customers (e.g., Clients 6 and 7), then interaction strategy in regard to these consumers does not require changing. If the firm's capacities are underutilized, it is recommended to expand the product range, offer solutions to new problems such as development of new product targeting specific consumers. It should be noted that the implementation of this approach requires knowledge of the customer's problems and ways to address them and in some cases, conducting market research aimed at clarifying the customer's preferences.

If the customer's purchases have stabilized (e.g., Clients 1 and 2) and are at the maturity stage this necessitates a modification of the offer. In particular, it is advisable to propose new product modifications and with an increase in the volume of purchases, more significant discounts.

As for customers whose purchasing dynamics are in decline and characterized by low volumes (such as Client 9), the loss of such customers will not create problems for the organization.

Application of portfolio methods allows clarifying and visualizing the situation. The matrix of the Boston Consulting Group (BCG) is the most widely used one. In this case, it is possible to use its modification reflecting the client's share in the sales volume and the growth rate of sales to the client (Table 3 and 4, Fig. 2 and 3).

According to the results of portfolio analysis, it is preferable to work with clients positioned in the 'milk cows' quadrant as they consistently bring the most profit to the manufacturer and do not require significant changes in the interaction strategy (Client 1 and 6).

Clients located in the 'star' quadrant bring substantial profits, in addition, the volumes of their purchases grow the fastest. Therefore, the firm should intensify contacts with these customers, expanding the range of their offers (Client 7).

For clients in the 'difficult children' quadrant and group B, developing the relations is recommended in order to transfer them to the 'star' quadrant (Client 4 and 8).

As for the customers who got to the zone bordering 'dogs', the recommendations are less clear. The first option is not to change the strategy, adopt a wait-and-see approach, monitoring the dynamics of their purchases. Another option is following the path of relation development if production facilities permit (Client 2, 3, 5).

If the customers located in the 'dogs' quadrant belong to the A group and are at the maturity stage, the recommendations align with the strategy proposed by the analysis of the life cycle and the ABC analysis. If customers in the same quadrant are unpromising from the point of view of the life cycle stage and the ABC analysis, the expediency of further work with them is doubtful and depends only on the capacity utilization. With sufficient load, working with these customers will not leato the company's economic performance improving.

Working with 'dogs' of Group C is reasonable only in case the client is at the introduction stage or starts the growth.

The results of applying all the above methods of analyzing the client base are summarized in Table 5 which reflects the assessment of the strategic prospects of each client.

Organic development means strategies that are logical for this stage of life cycle. In particular for the growth phase such strategies include the expansion of the range offered to the client, advertising introducing new modifications, development of the marketing infrastructure, flexible pricing. Assisted development suggests all the above, added by joint solutions to the client's problems and the creation of products and their modifications that are most effective for the client's business.

The concept of monitoring includes constant screening of the dynamics of sales volumes and profit from customers and making decisions based on the obtained results.

Table 3: Client's shares in purchases and growth rate calculation

	Sales volume (p, 000's)			
Clients	Reference year	Current year	Growth rate	Client's share in purchase volume (%)
1	1000	1020.34	1.02	29.36
6	850	947.26	1.11	27.26
7	600	745.15	1.24	21.44
2	360	367.17	1.02	10.57
4	122	159.14	1.30	4.58
5	80	88.95	1.11	2.56
8	68	85.06	1.25	2.45
3	21	23.78	1.13	0.68
10	24	22.55	0.94	0.65
9	15	15.67	1.04	0.45
Total	3140	3475.07		100.00

Table 4: Client's shares in profit and growth rate calculation

	Sales volume (p, 000's)			
Clients	Reference year	Current year	Growth rate	Client's share in profit (%)
6	4.900	5.00	1.02	27.26
1	4.388	4.89	1.11	29.36
7	3.221	4.00	1.24	21.44
2	2.069	2.11	1.02	10.57
4	0.705	0.92	1.30	4.58
5	0.459	0.51	1.11	2.56
8	0.392	0.49	1.25	2.45
3	0.159	0.18	1.13	0.68
10	0.160	0.15	0.94	0.65
9	0.105	0.11	1.04	0.45
Total	16.557	18.36	1.11	100.00

Table 5: Summary of client base analysis

	ABC analysis			Portfolio analysis		
Clients	Purchase volume	Profit	Life cycle stage	Purchase volume	Profit	Assessment of strategic prospects
1	A	A	Maturity	Milk cow	Star-milk cow	Great organic development
2	B	A	Maturity	Dog	Dog	Great assisted development
3	C	C	Decline	Dog	Difficult child	Insignificant, monitoring
4	B	B	Growth	Difficult child	Difficult child	Great assisted development
5	B	B	Maturity	Dog	Difficult child	Good, monitoring
6	A	A	Growth	Milk cow	Milk cow	Great organic development
7	A	A	Growth	Star	Difficult child	Great assisted development
8	B	B	Growth	Difficult child	Difficult child	Great assisted development
9	C	C	Decline	Dog	Dog	Insignificant, end of collaboration is possible
10	C	C	Decline	Dog	Dog	Insignificant, end of collaboration is possible

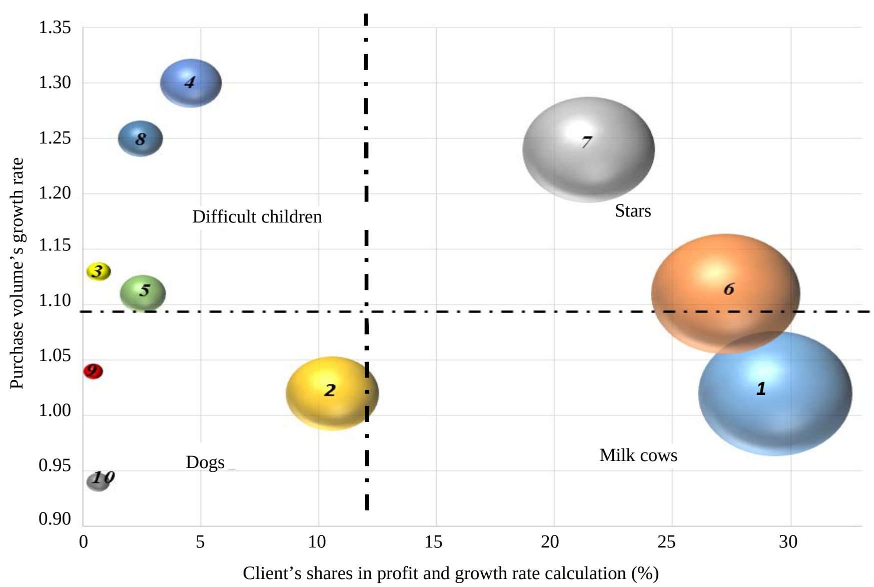

Fig. 2: Modified BCG matrix of client's purchase volume client's share in the overall purchase volume (%)

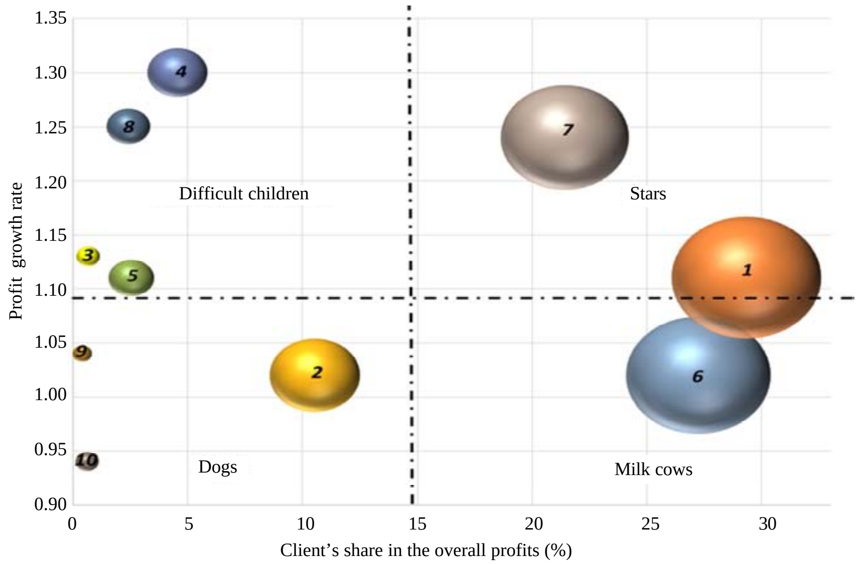

Fig. 3: Modified BCG matrix of profit from the clients client's share in overall profits (%)

CONCLUSION

The proposed way of client portfolio optimization allows justifying the strategy of mutual relations with various groups of clients, contributes to the increase in sales and profit, gives an opportunity to end relations with unprofitable clients in a timely manner, redistributing resources to satisfy requests from promising customers.

This algorithm is inherently universal, it can be used to optimize the portfolio of businesses of a diversified company, portfolio of product groups, products, distribution channels, sales managers, etc.

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