

ERP-system: Marketing Analysis Module

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Abstract: *This paper substantiates the necessity of ERP-systems' use in the trade-oriented companies. The main requirements of a marketing analysis software module are defined. The basic characteristics and functionality of the Registry_M module during its implementation at a company dealing with automobile spare parts import and trade are discussed.*

Key words: *ERP-systems, Decision-makers.*

INTRODUCTION

During the company existence a lot of information is accumulated and its volume exponentially increases. Business processes' dynamics sets to the managers more and more shorter time for decision making. In these terms using of ERP-system is not just desirable. The availability of suitable information system is a crucial factor for the future company progress. The requirements to the ERP-system modules are growing up as well. The system has to make business processes "transparent" to the governing body and the information form to allow a quick orientation in the main trends of the business.

The implementation of the marketing analysis module at a trade-oriented company is of the great importance. Its main functionality has to include:

- Processing in **Real-time** – obtaining the "shot" of the relationships between the company and the market at the present time;
- Generation of detailed information about the **Sales History** for any period of time;
- **Stock items** analysis – total information about sales, turnover and profit, "top"-items, sales trends;
- **Stock groups** analysis –total information about sales generalized at stock group level;
- **Clients** analysis – total information about sales at a particular client level or sales of the group of clients, trends in client's behavior;
- **Suppliers** analysis – total information about sales of goods, provided from suppliers;
- **Regions** analysis – total information about sales in geographic remote stores of the company;
- **Remote** access to the system – remote operation with the integrated data base;
- **Protection and Security** – determine and control of different access levels to the marketing information.

The presented software module Registry_M satisfies more of the requirements listed above.

MARKETING ANALYSIS MODULE Registry_M

One of the most concerned ERP-system users are companies dealing with automobile spare parts import and trade. On one hand their contractors abroad set the necessity of a perfect organization. On the other hand the operation with a multitude of clients, a huge nomenclature and the set of geographic remote stores necessitate the implementation of a powerful information system. The presenting module Registry_M is a part of such ERP-system, which generates in real-time the necessary marketing analysis.

The main form, where the criteria for selection should be posed (manager's questions) is shown on Fig.1.

Fig.1. Main form of Registry_M

It has to be determined the desired period of time, the particular supplier or client and stock items scope (particular item, group or main group) according to ERP-system nomenclature. There is also a possibility to select the information concerning group of clients (with the same characteristic). The buttons at the bottom of the form are starts the analysis. Generated information is placed in different windows allowing their comparison.

Detailed information about the **Sales History** according to the chosen selection (in the main form) is shown on Fig.2. For every stock position sold, the quantity, the current client price, the cost price, the profit and the concession are visualized. Initially the table gives the sales information chronologically but then it can be sorted by the every column's content.

Артикул	Код	Клиент	Бр	ККЦ	Цена	Себест.	1 п-ба	О. п-ба	Отст.
ГАРНИТУРИ ELWIS / 16.426.28 / 70-26545-00	40010904	физическо лице	8	0.90	0.69	0.41	0.16	1.32	-23
НАКЛАДКИ TRU / DP8829 / GDB 341 / 20-355	40011118	физическо лице	1	24.80	17.86	10.87	4.01	4.01	-28
КАРЕ GKN / 301023 / 0022461 / 302118	40004522	Клиент 56	2	78.00	41.52	34.59	0.01	0.01	-47
РАДИАТОР GERI / 16130 / 65165	40010986	Клиент 56	1	145.00	63.24	52.69	0.01	0.01	-56
ВОД ПОМПА GERI / 313024 / O-106 / 65361 /	40010954	Клиент 56	1	48.00	28.03	23.35	0.01	0.01	-42
ВОД ПОМПА GERI / 316004 / A-151 / 65430 /	40010145	Клиент 56	1	37.60	21.49	17.90	0.01	0.01	-43
ТЕРМОСТАТ VER / V 1439.87 J-BV	40008236	Клиент 56	3	11.80	5.90	4.91	0.00	0.01	-50
КАРЕ КАРД GKN / U 110	40004576	Клиент 4	5	21.90	10.40	3.96	4.70	23.52	-53
КАРЕ КАРД GKN / U 174	40004577	Клиент 4	3	95.60	46.80	41.16	-2.16	-6.48	-51
КАРЕ КАРД GKN / U 176	40004578	Клиент 4	2	36.20	15.60	13.36	-0.36	-0.72	-57
КАРЕ КАРД GKN / U 176	40004578	Клиент 4	3	36.20	15.60	13.49	-0.49	-1.46	-57
АМОРТЕСЪОР REC / 003994 / 441900	40011496	Клиент 4	4	54.60	35.49	23.26	6.32	25.26	-35
ЛАГЕР PDE / PDK414 / 5202	40011161	Клиент 4	2	19.20	12.48	7.88	2.52	5.04	-35
ЛАГЕР PDE / PDK696 / 5236	40011170	Клиент 4	5	39.80	25.87	17.09	4.47	22.33	-35
ЛАГЕР PDE / PDK863 / 4087	40011154	Клиент 4	5	28.00	18.20	10.19	4.98	24.88	-35
АНГ РЕМЪК FL 40427*17 СТ 558	40010371	Клиент 24	2	15.50	10.15	7.93	0.53	1.05	-35
АНГ РЕМЪК FL 40433*20 СТ 554(720)	40010304	Клиент 24	2	19.20	13.44	9.99	1.21	2.42	-30

Брой: 44898 Себестойност: 398097.47 Оборот: 599651.25 Печалба: 102511.07 Ср. % печалба: 17.10

Fig.2. Form with Sales History

A total information on some basic market indices is generated on the bottom of the form. It contains the total count of items sold, the cost price of the item sold and the receiving turnover and profit. The average profit percent as a ratio of profit to turnover is calculated as well.

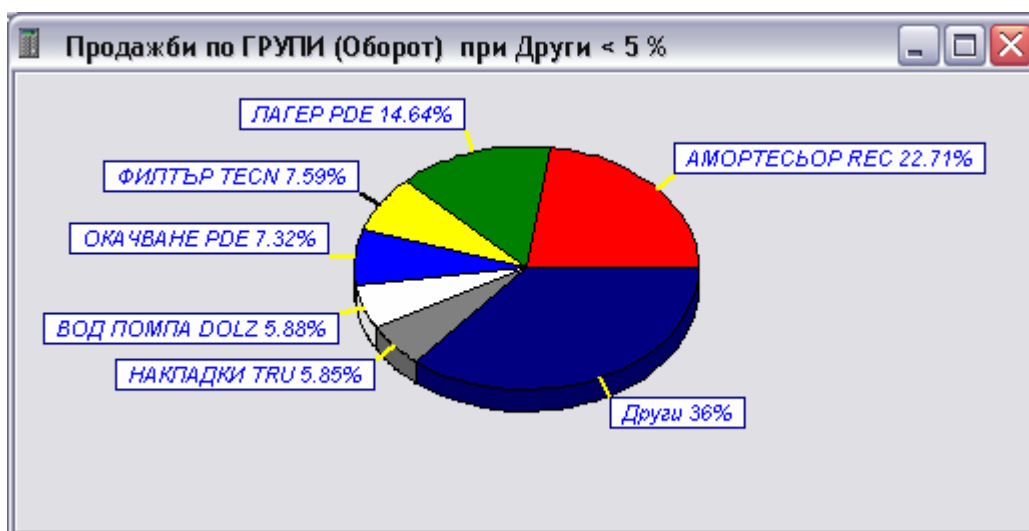
A generalized information about the stock **Groups** is shown on Fig.3. The total turnover, the corresponding profit and the percent ratio between them is visualized for every group of the selection. The system gives an information about the group's quota from total sales.

Група	Оборот	% Оборот	П-ба	% П-ба	% П/О
▶ АМОРТЕСЬОР REC	136154.03	22.706	23397.43	22.824	17.185
ЛАГЕР PDE	87800.99	14.642	18376.35	17.926	20.930
ФИЛТЪР TECN	45521.58	7.591	5157.79	5.031	11.330
ОКАЧВАНЕ PDE	43916.81	7.324	9346.42	9.117	21.282
ВОД ПОМПА DOLZ	35287.15	5.885	3912.93	3.817	11.089
НАКЛАДКИ TRU	35105.10	5.854	7899.62	7.706	22.503
КАРЕ LO	26627.85	4.441	3403.06	3.320	12.780
МАНШОН LO	17149.37	2.860	2685.71	2.620	15.661
ГАРНИТУРИ ELWIS	12135.01	2.024	2143.41	2.091	17.663
ДЮЗИ HERZ	8998.32	1.501	1698.08	1.656	18.871
СЕГМЕНТИ SM	8447.28	1.409	1626.02	1.586	19.249
АНГ РЕМЪК ROUL	7845.81	1.308	1414.11	1.379	18.024
РАДИАТОР GERI	7037.54	1.174	1654.45	1.614	23.509
ОБ РОЛКА CDC	6879.77	1.147	965.66	0.942	14.036
СВЕЩИ DENSO	6812.64	1.136	1186.65	1.158	17.418

Оборот: 599651.25 Печалба: 102511.07

Fig.3. **Groups** analysis form

It's clear that much easier and faster is the orientation in the information presented graphically. The same table is presented graphically in other window as it is shown on Fig.4. Depending on which column the sort is done the data about turnover or the profit is given in the graphic form. All groups with totals below a specified limit are included in the sector "Others". The limit size defines the number of the sectors (the smaller it is, the more the sectors are). Here the manager could change the information type (numbers/percentages) and to determine the limit size for "Others".

Fig. 4. **Groups** analysis graphic form

In case of appropriate structure of the nomenclature base this analysis allows to be calculated the market quota of similar stock items (from the same group), provided from different suppliers. This helps setting up the company's policy towards the suppliers.

Such a "dissection" of the information base could be done on a level of a particular stock item too. This way the manager obtains an information about "top"-items for the

specified period of time (quantity, turnover and profit). The trends in their sales are visualized in a different window (Fig.5).

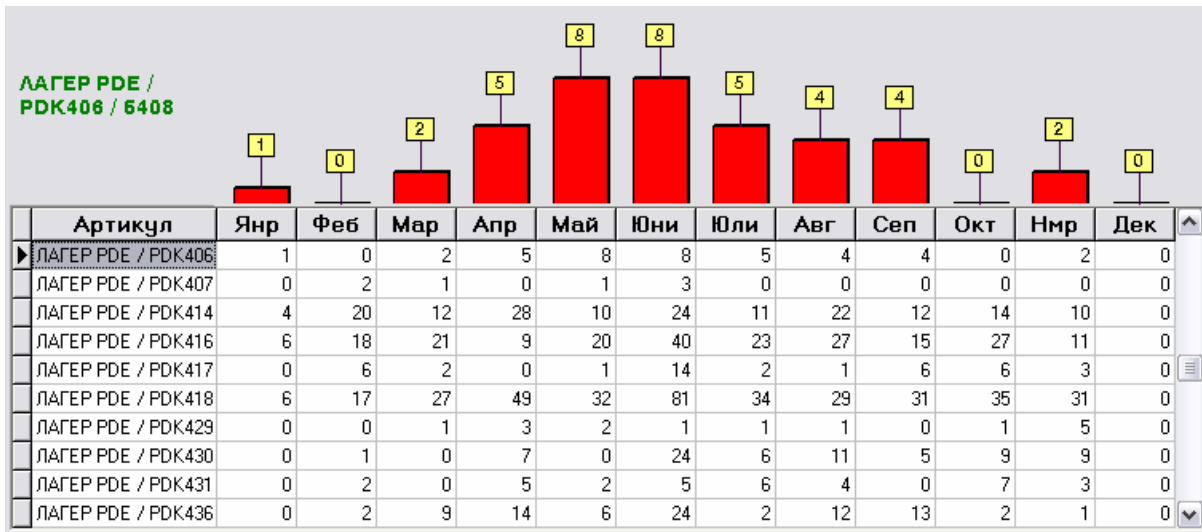


Fig.5. Trends in sales of selected Items

An additional “dissection” allows tracing up the items sales allocation in a selected month (Fig.6). This analysis is valuable with the opportunity for prognostication the market progress. So the company could respond ahead to its necessities.

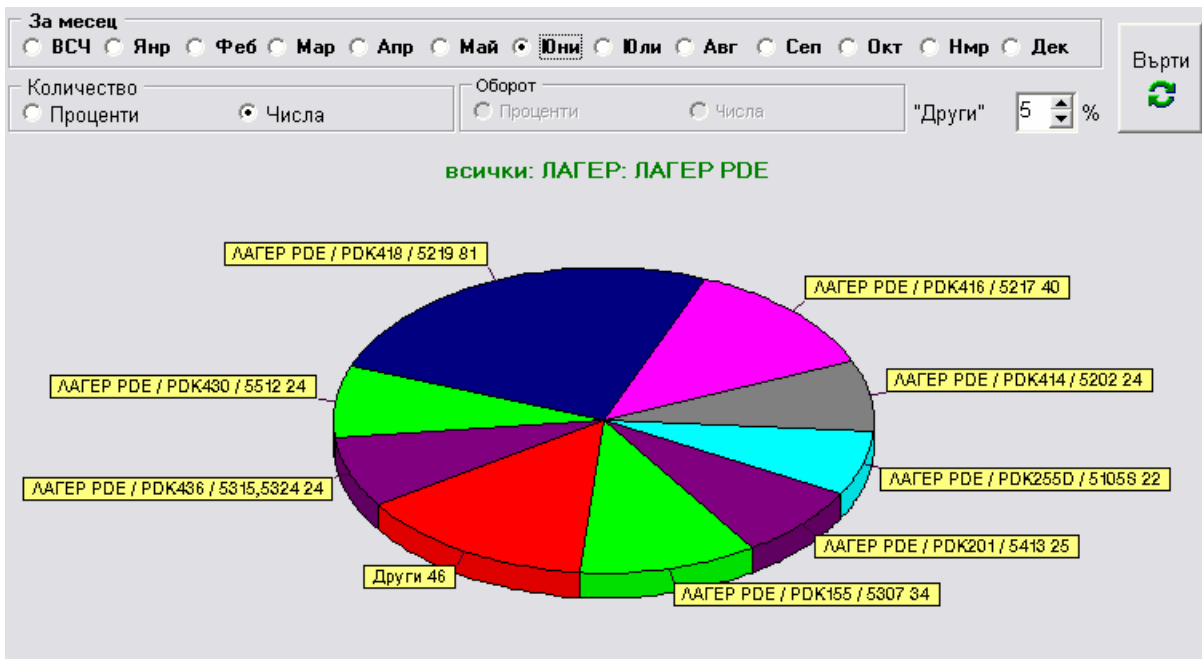


Fig.6. Allocation of Items sales in the specified month

The **Clients** analysis gives to the managers very useful information as well. On the base of clients’ behavior till now the company decides its future business dealings. The form on Fig.7 shows graphically generated table information about the turnover and the profit, obtained from business dealings with different clients.



Fig.7. Profit allocation according to **Clients** for a specified period

The client “physical person” generalizes the information of all the insignificant clients (clients without specified characteristic).

However, the total turnover and profit values are not always sufficient to form an adequate policy to a particular client. For this purpose the manager could use detailed information about the client’s behavior (Fig.8). On the figure it could be seen that otherwise the stabile progress of sales of “Client 1” during the last two months scores sudden regress – a serious subject of speculation of the managers.

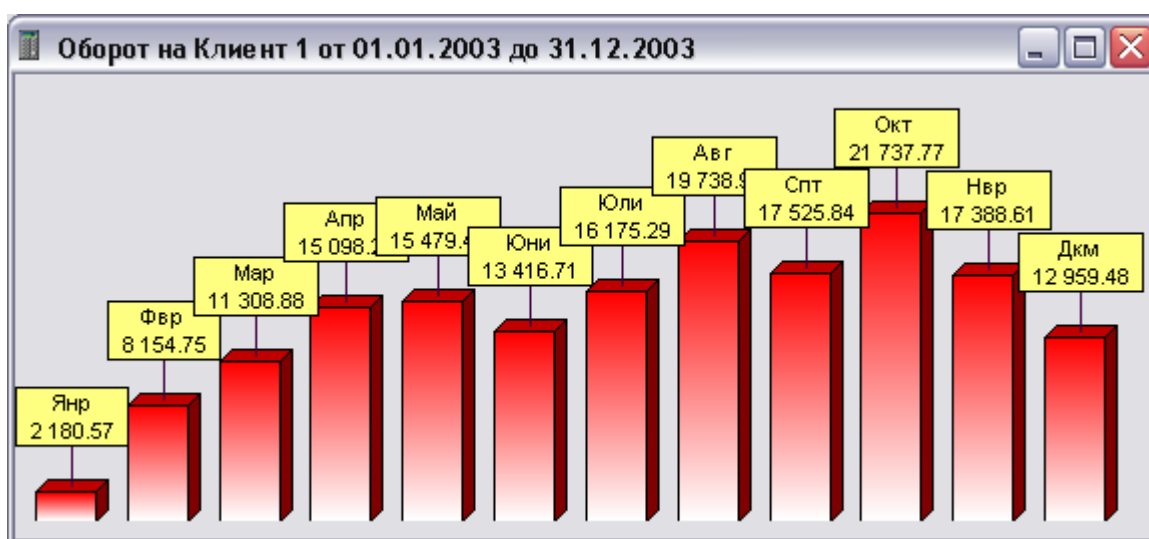


Fig.8. Behavior of the selected **Client** during the specified period of time

The result of the analysis on regional **Stores** level is shown on the Fig.9. This way the trade-oriented company with a branch structure could find out the properties and demands of the regional markets.

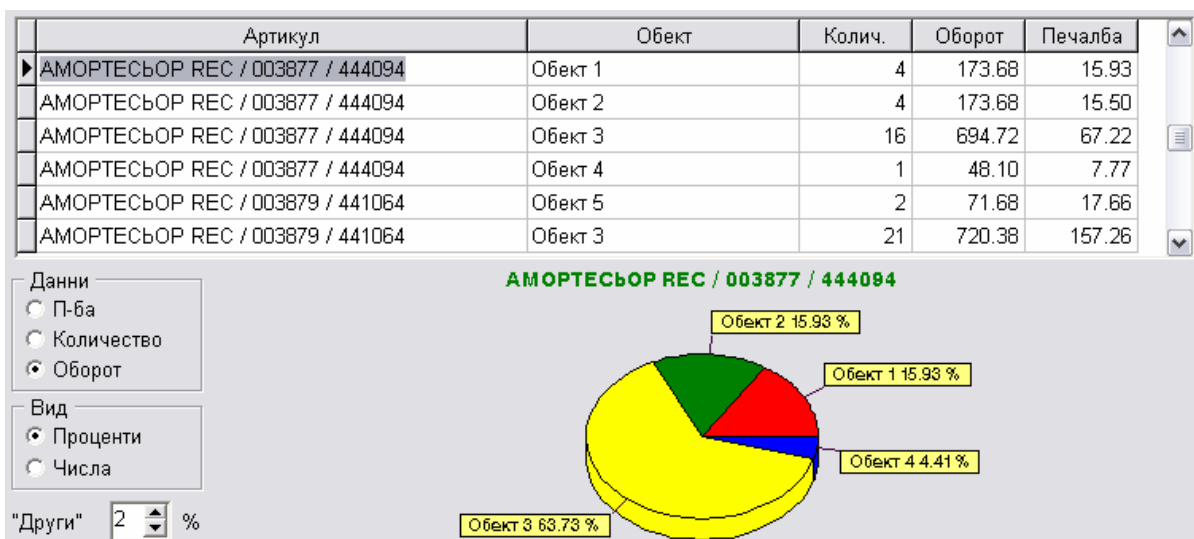


Fig.9. Sales analysis of selected stock item in different geographic remote **Stores**

CONCLUSIONS

Nowadays, the existence and the progress of a trade-oriented company is impossible without ERP-system and its marketing analysis module. The effective use of this software allows to be taken in time strategic and tactic control decisions with respect of:

- What to be supplied, who should be the supplier and when the orders to be generated;
- In which region what to be sold, its price and when;
- Where there is a need the advertisement to be strengthened, goods from what store to be transferred;
- Which are the strategic clients and what is the amount of discount to be proposed to the different clients;
- Which are the most important goods for the business, which are those that generate the biggest profits and the sale of which items must be stopped.

An export of the table information in Excel format gives the opportunity for additional statistic processing from other specialized systems.

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