

The Relationships between Market Orientation and Competitiveness of Companies in Banking Sector

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Abstract—The objective of the paper is to measure and compare market orientation of Swiss and Czech banks, as well as examine statistically the degree of influence it has on competitiveness of the institutions. The analysis of market orientation is based on the collecting, analysis and correct interpretation of the data. Descriptive analysis of market orientation describe current situation. Research of relation of competitiveness and market orientation in the sector of big international banks is suggested with the expectation of existence of a strong relationship. Partially, the work served as reconfirmation of suitability of classic methodologies to measurement of banks' market orientation.

Two types of data were gathered. Firstly, by measuring subjectively perceived market orientation of a company and secondly, by quantifying its competitiveness. All data were collected from a sample of small, mid-sized and large banks. We used numerical secondary character data from the international statistical financial Bureau Van Dijk's BANKSCOPE database.

Statistical analysis led to the following results. Assuming classical market orientation measures to be scientifically justified, Czech banks are statistically less market-oriented than Swiss banks. Secondly, among small Swiss banks, which are not broadly internationally active, small relationship exist between market orientation measures and market share based competitiveness measures. Thirdly, among all Swiss banks, a strong relationship exists between market orientation measures and market share based competitiveness measures. Above results imply existence of a strong relation of this measure in sector of big international banks. A strong statistical relationship has been proven to exist between market orientation measures and equity/total assets ratio in Switzerland.

Keywords—Market Orientation, Competitiveness, Marketing Strategy, Measurement of Market Orientation, Relation between Market Orientation and Competitiveness, Banking Sector.

I. INTRODUCTION

MOTIVATION to pursue this particular field of interest is the lack of sufficient research in empirical work concerning market orientation of banks.

The primary aim of this paper is to examine empirically the present relationship between market orientation of banks and

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their financial competitiveness. The results may serve as a proof for existence of a relationship between market orientation of banks and their competitiveness on mature markets.

Hopefully this work will serve the long term goal of providing management of banks with tools enhancing market orientation of banks and in consequence their economic performance.

II. MARKET ORIENTATION IN THEORY

The phenomenon of market orientation is one of crucial factors contributing to profitability of a company. However, there are still many entities that do not exploit fully the potential of the focused market orientation [21].

In an era of increasingly competitive environments, organizations must operate efficiently in order to achieve their goals. In this context, the concept of market orientation is considered highly important [18].

Practical, yet somewhat abstract concept of market orientation has been troublesome to define and many approaches exist in the literature. However, they share some common elements, such as "the state of orientation" at clients, competitors and interfunctional coordination, as well as long-term survival of the company, all of which have profit maximizing in the background. Hence, as Leyland/Pitt summarized aptly, market orientation is often perceived as a management philosophy that recognizes that the customer should be the focal point of all activity in the organization [9]. It is also widely argued, that market orientation is an implementation of a marketing concept.

It may be also purposeful to recall the first studies on market orientation - conducted in USA by Kohli [8]. These researches, who are probably still most acclaimed in this field, defined market orientation as "The organization-wide generation of market intelligence, dissemination of the intelligence across departments and organization-wide responsiveness to it." Market-oriented behaviours regarding the generation, dissemination, and utilization of market information are important for developing the capability to utilize new internal and external knowledge sources in innovation activities [17]. Without the ability to use and act upon information, market orientation may not be positively to performance [20].

Further, Narver and Slater, other landmark academics of this field, described market orientation as follows: "Market orientation contains three elements of behaviour – customer orientation, orientation on competition and interfunctional

coordination (and two decision criteria – long-term orientation and profitability)” [11].

Out of a broad range of definitions, the one of Tomášková was found to be the simplest, most intuitive and effective [14]. She presents market orientation as an approach in managing, which enables decision makers to have more focus on three characteristic fields of factors, which stimulate competitiveness and generally profitability of companies. This way, market orientation proves to be rather a method of providing managers with tools to assess fields of strategy vital to the success of a company, than an abstract theoretical concept. Such a definition seems to sensibly and accurately address the very core of market orientation.

When it comes to measuring market orientation, out of a broad range of instruments proposed in the literature, most stem from the milestone Narver/Slater 7- dimensional Scale, called “Market Orientation Scale” (MKTOR) or Kohli/Jaworski “Measure of Market Orientation” (MARKOR). These measures were widely used to investigate the relationship between the market orientation and competitiveness of companies (Narver/Slater, Deshpandé, Farley and Webster, Jaworski/Kohli). These authors are often cited as founders of conceptualization of measurement instruments eligible for quantifying market orientation construct. Both concepts were based on series of questions directed to firms, which addressed different aspects of market orientation of companies, answers of which were later accordingly summed/averaged. These methods were broadly copied and reshaped in order to meet new needs. Finally, other notable methods which are worth mentioning are Deshpandé/Farley (MORTN model) and Hajjat (CUSTOR model), both of which were strongly concentrated on customers [4].

It is also necessary to point out that the concept of market orientation has been also applied to banks with high degree of success. For example, research by Kock revealed differences in the antecedents of market orientation among banks in Sweden, Denmark, Finland and Norway [7]. More recently, Agti has measured market orientation of commercial banks in Jordan [1].

III. FIRMS' COMPETITIVENESS

In the wake of strong competitive pressures from China, India and Russia focus on developing new and more convenient services for the customers in banking sector and particularly in retail banking is a viable opportunity to stay ahead of the more and more fierce competition. The possible way forward is to offer comparable services for the same price or free as the competition and simultaneously develop and offer new services offered for premium prices [21].

Competitiveness theory is a very broad, interdisciplinary area of research and every researcher (or school of research) pays particular attention to different aspects, which implies existence of numerous competitiveness definitions. If we were to build the simplest definition, one could say that competitiveness is an advantage of a company over its

competitors. This trivial observation can be found in most, if not all, definitions. For example, Mikoláš defines competitiveness as the difference between the real economic profit of the firm and its potential in comparison to its competition. According to another Czech researcher straightforward, yet effective definition, competitiveness is firms' ability to achieve market success, while selling and acting in a competitive environment [2].

According to Michael Porter analysis of market orientation represents the crucial element of a successful business and usage of this methodology can lead to gain a comparative advantage to market competitors. Rivera et al. has defined market orientation as a strategy used to reach a sustainable competitiveness [13]. Previous and current empirical studies in the scope of the market orientation present different degrees of the dependence between market orientation of companies and their success. Some studies also empirically tested the moderating effect of environmental uncertainties on the link between market orientation and performance [19].

For example, the influence of market orientation on new product success was confirmed by Tong/Wong [15]. According to Chalupský, market orientation has positive influence on maintain and increase market share [6]. Hence, the relationship between new product development and market share has been confirmed by many studies. To present a counter example, empiric research by Greenley led him to the conclusion of lack of direct relationships between market orientation and measures of corporate performance [5].

Very little research has been conducted on market orientation measures and their influence on competitiveness in the case of banks. No research was found, which would take into consideration both Swiss and Czech banks. As already argued by Bhuiyan, it is also noteworthy that very little empirical investigation of market orientation-performance linkage in the developing country context has been conducted [3]. Based on above arguments, hopefully this scope of interest will be especially purposeful and beneficial to marketing science.

The literature reveals diverse methods that are used to approximate or measure competitiveness. Zairi considers benchmarking as “the best tool for measuring competitiveness” [16]. Blažek shows two categories of such methods: financial (hard) and non-financial (soft). Some of the popular methods are: P/E, EFQM, Altman Z-Score, Competitive position, Market share, Kralicek Quick test, model PERMANENT, Balanced Scorecard or 5-force Porter model [12]. For the purpose of this study, financial indicators will be used to keep the study practice - and performance – oriented [10].

IV. MEASUREMENT METHODOLOGY

The banks were divided into three size groups: small, medium-sized and large. A total of 240 individual observations (137 Swiss and 103 Czech) were collected. After elimination of institutions where respondent answered less than 80% of questions, 92 answers from 17 Swiss institutions

and 74 Czech from 13 banks were available for further analysis. The method to achieve the goals is to quantify market orientation by constructing indices of market orientation.

Two types of data were gathered: Likert-type market orientation measures and competitiveness measures. The first type of information was gathered directly from firms' employees who were asked to fill in a questionnaire consisting of questions on three respective fields composing market orientation of a company: 12 concerning internal factors, 10 external factors and 11 its competitive environment. Questions were based on well-established core repertoire of questions used by previous researches. The answers were expressed in 5 stage Likert scale. Second type of data was gathered from firms' financial statements. These are: total assets book value, ROAE, ROAA, book value of equity, yearly profit and cost-income ratio.

V. RESULTS AND DISCUSSION

Indices values for individual banks were constructed by firstly averaging Likert-weighted responses of a given respondent in three respective aspects, and then averaging them for given firms. See Figs. 1 (a) and (b) below for descriptive statistics of the resulting values.

| Swiss | internal | external | business environment |
|--------------------|----------|----------|----------------------|
| Mean | 3.85 | 3.38 | 3.90 |
| Median | 3.86 | 3.35 | 3.93 |
| Minimum | 3.24 | 2.93 | 3.00 |
| Maximum | 4.36 | 3.90 | 4.45 |
| Range | 1.11 | 0.96 | 1.45 |
| Standard deviation | 0.33 | 0.25 | 0.35 |
| Skewness | -0.33 | 0.33 | -0.75 |
| Ex. kurtosis | -0.60 | -0.22 | 0.91 |

Fig. 1 (a) Descriptive statistics of individual banks' market orientation measures in respective aspects (Source: Own research)

| Czech | internal | external | business environment |
|--------------------|----------|----------|----------------------|
| Mean | 3.59 | 3.31 | 3.57 |
| Median | 3.59 | 3.31 | 3.58 |
| Minimum | 3.33 | 2.96 | 3.37 |
| Maximum | 3.73 | 3.79 | 3.80 |
| Range | 0.39 | 0.83 | 0.43 |
| Standard deviation | 0.13 | 0.18 | 0.13 |
| Skewness | -0.63 | 0.90 | 0.23 |
| Ex. kurtosis | -0.71 | 2.22 | -0.87 |

Fig. 1 (b) Descriptive statistics of individual banks' market orientation measures in respective aspects (Source: Own research)

A substantial difference between ranges of Internal and Business Environment indices in Swiss and Czech samples

can be seen at the first sight, with Swiss values being nearly as much as three times higher. As shown in Figs. 2 (a), (b) below, using t-student test for testing appropriate hypothesis, statistically significant differences exist between mean values of internal factors index and business environment index in the samples. Therefore, it can be argued, that according to this methodology, Swiss banks tend to be market-oriented with respect to mentioned aspect in comparison to Czech banks. Based on results of the F test, there exist statistically significant reasons for rejecting the hypothesis that variances of Swiss and Czech populations are equal. Therefore, it can be justified that market orientation varies significantly more at the Swiss banking market in comparison to Czech.

| | internal | external | business environment |
|---------------------|----------|----------|----------------------|
| difference of means | 0,26 | 0,07 | 0,33 |
| t-student value | 2,97 | 0,91 | 3,59 |
| p-value | 0,00 | 0,25 | 0,00 |

Fig. 2 (a) The results of t-student test for given aspect scores (Source: Own research)

| | internal | external | business environment |
|---------|----------|----------|----------------------|
| F test | 6,20 | 1,82 | 6,38 |
| p-value | 0,00 | 0,21 | 0,00 |

Fig. 2 (b) The results of F test for given aspect scores (Source: Own research)

In order to inquire the relationship between competitiveness and market orientation measures, a series of regressions using Ordinary Least Squares method was run. What is interesting, estimation for Swiss dataset provided us with meaningful results and same relationship in Czech seems to be non-existent. We shall gain more insight in the reasons for this in a short moment, but firstly let us focus on Fig. 3, which presents results for the banks in Switzerland.

Looking at the results in Fig. 3, one could argue that a relatively strong and meaningful relationship exists between competitiveness (especially market share measures) and market orientation measures. This is only partially true. As we can see below in Figs. 4 (a)-(d), which depict plots of "external" index against total assets, log of total assets, net profit and equity, we can clearly divide the dataset in two clusters: the outliers and main group. Outliers, which are clear market leaders of Swiss banking market (UBS, Credit Suisse and considerably smaller Raiffeisenbank), are responsible for most of the variance in the dataset. Remaining part seems to be contributing considerably less to the positive relation between the values. Therefore, it may grow distrustful for the relationship in the data cluster of smaller banks.

| Swiss | constant | internal | external | business environment | adjusted R2/ p-value of F test for whole regr. |
|----------------------------|-----------|----------|-----------|----------------------|--|
| Total Assets | -3.7e+09 | -2.8e+08 | 1.92e+09 | -3.86e+08 | 0.473 |
| p - value | 0.002 *** | 0.591 | 0.022 ** | 0.466 | 0.010 |
| Log of Total Assets | -0.329 | -6.099 | 12.49 | -0.595 | 0.257 |
| p - value | 0.964 | 0.122 | 0.038 ** | 0.877 | 0.078 |
| ROAA | 0.004 | 0.001 | 0.001 | -5.06e-05 | -0.213 |
| p - value | 0.541 | 0.702 | 0.798 | 0.989 | 0.980 |
| ROAE | -0.134 | -0.044 | 0.368 | -0.218 | 0.105 |
| p - value | 0.568 | 0.716 | 0.057 * | 0.099 * | 0.232 |
| Net Profit | -2.1e+07 | -1.4e+06 | 1.04e+07 | -2.23e+06 | 0.462 |
| p - value | 0.002 *** | 0.624 | 0.023 ** | 0.445 | 0.011 |
| Log of Net Profit | -6.50 | -5.327 | 12.305 | -1.001 | 0.205 |
| p - value | 0.414 | 0.206 | 0.057* | 0.811 | 0.117 |
| Equity | -1.3e+08 | -1.4e+07 | 6.81e+07 | -1.05e+07 | 0.484 |
| p - value | 0.002 *** | 0.411 | 0.02 ** | 0.56 | 0.008 |
| Log of Equity | 0.647 | -6.43 | 9.606 | 1.33 | 0.224 |
| p - value | 0.923 | 0.082 * | 0.078 * | 0.71 | 0.101 |
| Equity/Total Assets | 0.327 | -0.028 | -0.207 | 0.042 | 0.492 |
| p - value | 0.001 *** | 0.52 | 0.005 *** | 0.005 *** | 0.008 |
| Cost Income Ratio | 0.18 | 0.162 | -0.149 | 0.079 | -0.134 |
| p - value | 0.77 | 0.621 | 0.757 | 0.813 | 0.778 |

Fig. 3 Results of regression of competitiveness measures against market orientation measures in Switzerland (Source: Own research)

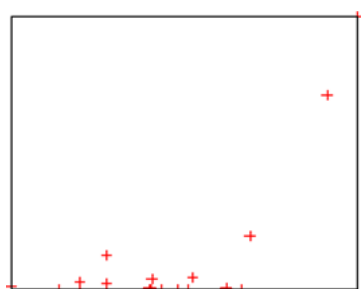


Fig. 4 (a) Plot of external factors index against competitiveness measures (Total Assets) – Swiss banks (Source: Own research)

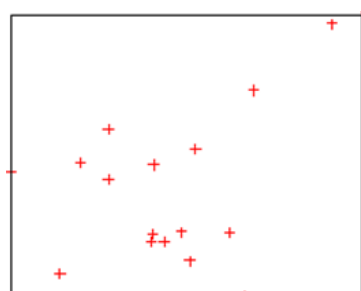


Fig. 4 (b) Plot of external factors index against competitiveness measures (Log of Total Assets) – Swiss banks (Source: Own research)

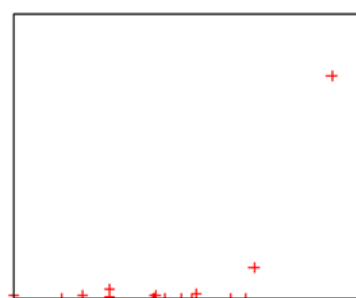


Fig. 4 (c) Plot of external factors index against competitiveness measures (Net Profit) – Swiss banks (Source: Own research)

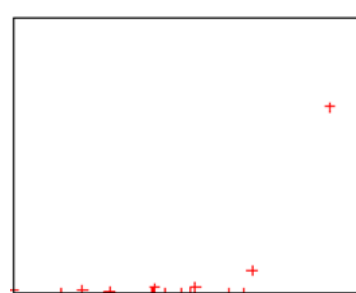


Fig. 4 (d) Plot of external factors index against competitiveness measures (Equity) – Swiss banks (Source: Own research)

Indeed, having excluded the 3 outliers, the same regressions as before were run and found the only relationship that was found prevail was the relation between equity/total assets ratio and the indices. Results for this relation are presented below, in Figs. 5 (a), (b). All other previously acceptable relations rendered insignificant, both in cases of single coefficients as well as overall.

| Before excluding outliers | constant | internal | external | business environment | Adjusted R2/ p-value of F test |
|----------------------------|-----------|----------|-----------|----------------------|--------------------------------|
| Equity/Total Assets | 0.327 | -0.028 | -0.207 | 0.144 | 0.492 |
| p - value | 0.001 *** | 0.512 | 0.005 *** | 0.005 *** | 0.008 |

Fig. 5 (a) Comparison of previous regression results with results before excluding outliers – Swiss banks (Source: Own research)

| After excluding outliers | constant | internal | external | business environment | Adjusted R2/ p-value of F test |
|----------------------------|----------|----------|----------|----------------------|--------------------------------|
| Equity/Total Assets | 0.227 | -0.031 | -0.16 | 0.134 | 0.328 |
| p - value | 0.073 * | 0.470 | 0.051 * | 0.01 ** | 0.062 |

Fig. 5 (b) Comparison of previous regression results with results after excluding outliers – Swiss banks (Source: Own research)

Above results of regressions imply existence of a particularly strong degree of relationship between market shares derived variables and market orientation measures in the sector of big banks.

As an illustration of insignificance of Czech results, please consider the fact that no p-value was below the level of 20%, taking into consideration both partial and all-over results for

regressions. Please consult Figs. 6 and 7 below, which present excerpt from our findings.

| Before excluding outliers | constant | internal | external | business environment | Adjusted R2/ p-value of F test |
|---------------------------|----------|----------|----------|----------------------|--------------------------------|
| Equity Ratio | 0.231 | 0.001 | 0.078 | -0.107 | -0.187 |
| p - value | 0.690 | 0.994 | 0.511 | 0.406 | 0.777 |

| After excluding outliers | constant | internal | external | business environment | Adjusted R2/ p-value of F test |
|--------------------------|----------|----------|----------|----------------------|--------------------------------|
| Equity Ratio | -273678 | 100677 | -50611.5 | 30085.7 | -0.121 |
| p - value | 0.385 | 0.243 | 0.425 | 0.658 | 0.65 |

Fig. 6 Partial results of regression of competitiveness measures against market orientation measures in Czech Republic (Source: Own research)

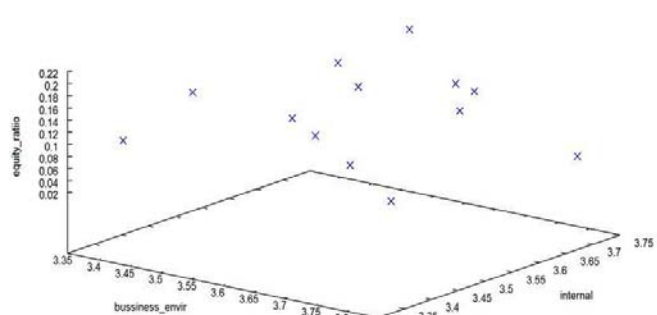


Fig. 7 3-D plot of equity ratio in relation to business environment and internal market orientation indices (Source: Own research)

VI. CONCLUSION

The examination of market orientation and competitiveness of Swiss and Czech banks leads to interesting observations. Probably the most important result is the strong resistance to changes in statistical approaches relation between market orientation measures and equity/total assets ratio in Switzerland. Simple statistical analysis revealed existence of two different clusters, with market orientation behaving differently in each of them. The existence of two groups of huge corporate banks and private/cantonal banks is no surprise. This division of the market is observable even from a customer perspective. However, the behavior of market orientation measures in both groups is most interesting. In a sector of medium-sized and small banks, which do not specialize in transnational activity, only a weak significant relationship exists between market orientation measures and market share based competitiveness measures. This may suggest that market in this sector is weakly saturated and competition is far from intense.

As regression of both data clusters produces very good results, it suggests strong relationship between market orientation and market share based on competitiveness among the tree top banks. The expected strong relation among big banks has been verified. As only three international corporate banks are active in Switzerland, recommendation of broader research in broader international field seems to be plausible.

Results seem slightly different for Czech banks. In general, Czech banks are significantly less market oriented than the

Swiss ones. Moreover, no strong statistical relationship has been found between their market orientation and competitiveness. The dataset gives a feeling of existence of an external variable, which is causing the co-linearity of the variables.

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