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Graduate School of Management

Master in Corporate Finance

INTANGIBLES AS A DRIVING FORCE OF COMPANY'S VALUE IN COSMETICS
INDUTRY

Master's Thesis by the 2nd year student

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
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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ
ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Воблая Ольга Валентиновна, студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей ВКР на тему «Нематериальные активы как движущая сила стоимости компании на примере косметической индустрии», представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата.

Все прямые заимствования из печатных и электронных источников, а также из защищенных ранее выпускных квалификационных работ, кандидатских и докторских диссертаций имеют соответствующие ссылки.

Мне известно содержание п. 9.7.1 Правил обучения по основным образовательным программам высшего и среднего профессионального образования в СПбГУ о том, что «ВКР выполняется индивидуально каждым студентом под руководством назначенного ему научного руководителя», и п. 51 Устава федерального государственного бюджетного образовательного учреждения высшего профессионального образования «Санкт-Петербургский государственный университет» о том, что «студент подлежит отчислению из Санкт-Петербургского университета за представление курсовой или выпускной квалификационной работы, выполненной другим лицом (лицами)».

 (Подпись студента)


30.05.2017 (Дата)

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THESIS

I, Voblaia Olga, second year master student, program «Management», state that my master thesis on the topic « Intangibles as a driving force of company's value in cosmetics industry », which is presented to the Master Office to be submitted to the Official Defense Committee for the public defense, does not contain any elements of plagiarism.

All direct borrowings from printed and electronic sources, as well as from master theses, PhD and doctorate theses which were defended earlier, have appropriate references.

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АННОТАЦИЯ

Автор	Воблая Ольга Валентиновна
Название ВКР	Нематериальные активы как движущая сила стоимости компании на примере косметической индустрии
Направление подготовки	Магистр Корпоративных Финансов
Год	2017
Научный руководитель	Гаранина Татьяна Александровна
Описание цели, задач и основных результатов	Целью работы является определение отношения между интеллектуальным капиталом и рыночной капитализацией на примере косметической индустрии. Анализ прошлых исследований, посвящённых интеллектуальному капиталу, открыл пробелы в изучении отношений между интеллектуальным капиталом и рыночной капитализацией в косметической индустрии. Результаты исследования получены методом регрессионного анализа панельных данных и представляют доказательства положительного отношения между интеллектуальным капиталом и рыночной капитализацией в индустрии, предоставляя инструмент для управленческого применения для принятия решений.
Ключевые слова	Интеллектуальный капитал, Нематериальные активы, Рыночная капитализация, Косметическая индустрия

ABSTRACT

Master Student's Name	Olga Voblaia
Master Thesis Title	Intangibles as a Driving Force of Company's Value in Cosmetics Industry
Main field of study	Master In Corporate Finance
Year	2017
Academic Advisor's Name	Tatiana A. Garanina
Description of the goal, tasks and main results	The goal of research is to investigate the relationship between intellectual capital and market capitalization in the case of cosmetics companies. Analysis of previous researches dedicated to intellectual capital revealed research gap on the study of intellectual capital and market capitalization relationship in the cosmetics industry. The results of this research are built on panel data regression analysis and present evidence of positive relationship between market capitalization and intellectual capital in the industry proving managerial application tool for decision-making.
Keywords	Intellectual Capital, Intangible Assets, Market Capitalization, Cosmetics Industry

INTRODUCTION

Evolution of economy has caused significant changes on global market and now we observe growth of meaning of intangible assets for companies: currently more value added is created by intangibles rather than other types of assets. Intangible assets are unique way for company to add value and increase its competitiveness, moreover intangibles have increasing returns to scale so attractive to market. Thus, intangibles are useful way to create and add value to the company and intellectual capital valuation becomes more and more needed but precisely intangibles are hard for measuring and valuation and therefore are hardly able for managing and control.

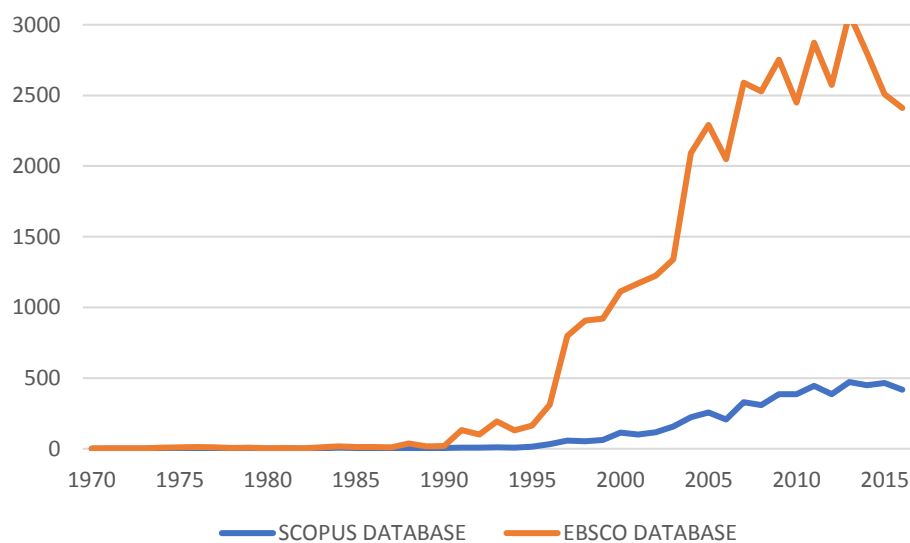
There are several approaches to understand intangible assets: from financial statement understanding limited to shown in financial statements intangibles to wider approaches considering intangible assets as everything even not yet estimated that lacks physical form and shape. In this paper, we use intellectual capital approach of intangible assets understanding.

Accordingly, there are a lot of approaches of defining intellectual capital and they can differ from company to company or from industry to industry but in general there 2 approaches to describe intellectual capital (Udovichenko et al.,2010): 1st based on accounting approach and defines intellectual capital as assets without material form, created in past, can be measured, that bring to a company benefits in the future. Second approach is more generalised and includes besides the intangibles in financial reports also other intellectual capital which can't be reported but create significant value of the company as well.

For example, Edvinson and Malone define intellectual capital as the applied experience, organizational technology, customer relationships and professional skills that provide the company with a competitive advantage in the market (Edvinsson and Malone, 1997). This approach will be used to in this research paper to understand intellectual capital. Moreover, often they separate intangibles and intellectual capital but in this research paper we use these definitions as synonyms.

There were created a lot of methods of intellectual capital valuation but there is no general scheme for measure, valuation and management of intangibles: intellectual capital usually is unique, market or book value of unique components doesn't exist and the entire thing can't be sold out part by part. As a result, intellectual capital components are hardly measurable and often are not shown on the financial statements reports, therefore, in this research to investigate whether the relationship of intellectual capital and market capitalization exists we are using investments in intellectual capital.

Companies operating in cosmetics industry are strongly interested in adding value by intellectual capital and right since usually the reported in financial statements intangibles and goodwill have share in total company's assets from 20 % up to 50 %. Moreover, cosmetics industry is well known for continuous research and development activities, creating new products/new products lines/brands or acquiring brands which additionally increases value of the company each year and understanding of high importance of adding value to intellectual capital becomes more actual nowadays. Many researchers started exploring the IC and company's performance relationship just 25 years ago researching positive significant results in investigating IC and company's performance relationship. Number of investigations on this topic has grown significantly since 1990 (Picture 1).



Picture 1 The number of documents containing words “Intellectual capital” in EBSCO and SCOPUS databases in years 1970-2016

Source: Made by author

The problem of investigating the relationship between intellectual capital and market capitalisation seems interesting for researcher and several papers exit on the topic. Most of the papers conclude about existence of this relation. A lot of papers are written on the cases of IT industries or developing countries but never were addressed to the problem of cosmetics industry case.

In order to expand previous surveys and assess how model works on case of cosmetics industry and how managers of cosmetics companies could understand relationship between market capitalization and intangible assets in the industry, we devote this research paper to analysis of intellectual capital and market capitalization relationship.

General research field is intangible assets (intellectual capital) and **particular subject** relationships between intellectual capital and market capitalization.

The goal of research is to investigate the relationship between intellectual capital and market capitalization in the case of cosmetics companies.

To reach the goal of this research paper the following research objectives were stated:

- To analyze existing literature, researches and surveys on the topic and find out the research gap for new developments;
- To analyze existing classification models of intellectual capital;
- To develop theoretical model for this research;
- To collect the data base for the research and empirically test research hypotheses;
- To interpret results and provide managerial application based on research results.

The first chapter discloses the literature review, considers intellectual capital and market capitalization concepts, drilling down to the problem discussion and resulting to hypotheses formulation in second chapter. Second chapter includes the methodology discussion part, data and industry description, model formulation and model implementation resulting in model outcomes discussion and making conclusion on stated hypotheses.

CHAPTER 1. INTELLECTUAL CAPITAL AND MARKET CAPITALIZATION

1.1. Intellectual Capital: Definitions and Classifications

Intellectual Capital or IC term is not clear determined nowadays: there are several approaches to describe this phenomenon but all researchers agree on several state characteristics when talking about IC: IC is intangible asset and intangible value generated in the company that helps and may lead to competitive advantage of the company.

For the first time, intellectual capital term appeared in the 1960's with John Kenneth Galbraith's with publication in 1969 (Hudson, 1993). Back then opinion of competitive advantage of Intellectual Capital wasn't formed yet and companies and market were not concerned not only about intellectual capital management but understanding it. Starting in 1980-s the opinion on Intellectual Capital started to change under changing of economic environment and created need for increasing competitive advantages (Nikiforova, 2010). These advantages began to become IC.

First to use this advantage probably without not knowing it were sectors of economy with no or low production activities, low physical assets rate and based on the knowledge, experience and skills of employees like IT, software, communications. At the same time, production, manufacturing companies and companies with high rate of physical asset began to realize other competitive advantages opportunities rather than physical capital. These processes have influenced and accelerated a change from the traditional economy or the industrial age to the information age or to knowledge-based economy (Picture 1.1).

Industrial Age	Knowledge Age
Production Driven	Customer Driven
Functional	Process (Integrated)
Physical Capital (Tangible Assets)	Intellectual Capital (Intangible Assets)
Top Down	Bottom Up
Management	Leadership

Picture 1.1. The shift from industrial age to the knowledge age

Source: Chareonsuk and Chansa-ngavej,2008

Since the end of 20th century Intellectual capital became one of the possible sources of competitive advantage, which has emphasized in numerous number of researches (Mondal (2012); Dumay (2013), Clarke 2010), Choudhury (2010), Joshi (2012), etc.). Creating this competitive advantage requires smart management of the resource and the right approach for measuring it and correct identification of components of Intellectual Capital for company or industry.

The impetus of Intellectual Capital concept development was the increasing number of scientists and researchers working on the topic, giving new concepts and definitions of IC to the world. While in 1990-s and 2000-s academic articles on IC phenomenon appeared every year in an attempt to define the essence and give an appropriate definition of the Intellectual Capital, practitioners began to worry about the question of how to measure IC for their company. The brightest example is Scandia navigator developed in a European company with the same name by L. Edvinsson.

Over the last decade more unified methods for evaluating IC began to appear and the analysis of the influence of the IC on a sample of companies from different industries or from different countries became the major scientific interest for the last decade rather than Intellectual Capital evaluation on a separate company. A lot of similar empirical studies confirm the presence of a positive IC influence on the stability and efficiency of the company, on company performance, as will be discussed in more detail in this chapter.

Most of the works can be seen from foreign authors, however, despite the fact that interest in studying IC in Russia appeared not so long ago, at present economists of leading Russian universities and large companies are also engaged in this issue in depth. Russian market researches are presented in the works of T. Garanina, M. Molodchik, A Bykova, E Shakina, I .Ivashkovskay, L. Ustiniva, A. Ustiniv.

There is no definition of intellectual capital that is fixed in the scientific literature, a single term that describes the essence of the IC doesn't exist as well. Scientists use a wide range of synonyms for its definition, for example, intangible assets, knowledgeable assets, intellectual property, intellectual assets, etc. (Kristandl, 2007).

The appearance of many terms might be explained by a large number of scientists who study this topic and who want to improve terminology in application to their research. However, some of these definitions are more narrow, since they describe only a part of what is intellectual capital.

At the root of the study of intellectual capital, quite a lot of scientists understood by this term as the difference between the market and book values of the company, in particular it is attributed to L. Edvinsson (Roos, 2008). It was believed that the company received the higher value assigned by the market through the effective use of its intellectual resources.

However, already in a short time, it became clear that this difference may be caused by factors not related to the IC. For example, underestimation or reassessment of the company's

tangible assets, or the influence of macroeconomic factors, spread both to the whole industry and to a separate company (Kristandl, 2007).

There are two concepts to determine Intellectual Capital definition approaches: value and resource concepts.

From the point of view of the resource approach, IC is defined as a unique resource under skillful and efficient management of which the company expects to receive excess income. The adherents of this direction include A. Brooking, D. Tees, G. Roos, N. Bontis and others.

The value approach considers the IC in terms of the ultimate benefits that companies can derive from its use. In addition, in this case it is considered that IC does not have an independent value, but it's a production factor capable of creating a value. The founder of the cost approach is T. Stewart, also with this approach other researches worked such as K.E. Sveibi, L. Edvinsson, M. Malone and others.

In this research work, G. Kristandl and N. Bontis's formulation, which characterizes intellectual capital from the point of view of the resource concept (Kristandl, 2007), is understood as approached to define Intellectual Capital. Due to this concept recourse must have the properties of VRIN:

- 1) Valuable - resources should create value for the company;
- 2) Rare - resources should be evenly distributed throughout the company and hard to access for competitors;
- 3) Inimitable - the risk of copying resources by competitors should be minimal;
- 4) Irreplaceable (non-transferable) - competitors should not have similar resources.

Thus, intellectual capital is a strategic resource of the company, which has the properties of VRIN and allows companies to create sustainable value for themselves (Kristandl, 2007).

There are a lot of approaches to define IC. Martinde-Castro work "Towards 'An Intellectual Capital-Based View of the Firm': Origins and Nature" (Martin-de-Castro et al., 2011) presented one of the most significant compilations of definitions of intellectual capital. Some of them were already mentioned in this paper.

Indeed, in the current economic situation, when companies must quickly adapt to market changes, with cyclically recurring of economic crisis, it is necessary to use all of the company's resources, both tangible and intangible. But the main role must be given to the intellectual capital that can lead the company to success, improve the results of its activities, become the main driving

force. To understand Intellectual Capital meaning it's important to understand what it consists of which will be discussed in the next paragraph.

1.2. Intellectual Capital Elements

Since there is a variety of concepts and approaches of defining intellectual capital as shown earlier, there is also a variety of its structure (components or elements of IC) understanding and methods for measuring it. So far, this study has used the expression "intellectual capital" or its possible synonyms with no defined structure of IC.

Therefore, at this stage it is necessary to designate variants of IC structure. Nowadays Intellectual Capital has very important role in value creation and value adding process, it is an opportunity to create sustainable advantage and keep and push stable growth of companies perform great. Therefore, intellectual capital management became such developing issue to study and work on. In the same time management is hardly possible without understanding of how to measure IC and that became a question of attention as well. There are numerous definitions and classifications of intellectual capital. One of the first definition of intellectual capital was made in 1980-s defining IC as intangible assets including apart from balance sheet estimated intangible also technology, brand name, reputation, customer information, and corporate culture that add competitive power to the company (Itami, 1987). Due to another approach IC was defined as knowledge, information, intellectual property and experience that can be used to create wealth (Stewart, 1997). Among the approached there are two classical structures proposed by A. Brooking and T. Stewart.

According to the structure of IC, presented by Brooking (Brooking, 2001), Intellectual Capital is divided into 4 components:

- market assets;
- human assets;
- intellectual property as an asset;
- infrastructure assets.

A market asset is a kind of vision by the market and market representatives of intangible assets of the company. For example, the loyalty of consumers to the company's brand. Human assets are a collection of experience, skills and knowledge of all employees of the organization.

Intellectual property most common form is patents, licenses, copyrights, etc. Infrastructure assets are the assets through which the organization carries out business processes, communication between employees and departments. They also include corporate culture and databases.

The structure of the IC proposed by T. Stewart consists of three categories:

- human;
- structural;
- customer (relational) capital.

Human and structural capital are similar to the corresponding components of the human and infrastructural asset proposed in Brooking's classification. Relational capital refers to relationships with various groups of agents, for example, consumers, creditors, suppliers, owners (Stewart, 2007).

Other variants of the classification of Intellectual Capital structure are presented in Table 2.

Table 2 Classifications of Intellectual Capital Structure

Author	Classification
[Edvinsson, Malone, 1997]	Human Capital Structural Capital
[Bontis, 1998]	Human Capital Structural Capital Relational Capital
[Stewart, 1997]	Human Capital Structural Capital Relational Capital
[Saint-Onge, 1996]	Human Capital Structural Capital Relational Capital
[Sveiby, 1997]	Employees' competence Internal Structure External Structure
[Van Buren, 1999]	Human Capital Innovational Capital Structural Capital Relational Capital
[Roos, Roos, Edvimson, 1998]	Human Capital Structural Capital Relational Capital
[O'Donnell, O'Regan, 2000]	Employees competence Internal Structure External Structure

Sydler et al. (2014)	Human Capital Structural Capital Relational Capital
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Source: adopted from Garanina (2008)

In most classifications human, structural capital and relational capital (or their equivalents) are included in the structure of Intellectual Capital: being vital for the organization, these components represent basis of organization that provides activities of organization - people, their experience and knowledge, interactions between them, etc. Generally, IC is represented by three main categories, which are human capital, structural capital (organizational capital), and relational capital (customer capital or social capital) (Bontis (1999); Edvinsson & Malone (1997); Stewart (1997)).

Some researches named components of IC differently as external structure which can be compared with relational capital, internal structure which can be compared with structural capital and individual competencies which can be compared with human capital (Sveiby, 1997).

Relational capital consists of networks and social relations between external and internal environment such as customers, employees, suppliers, competitors and government agency (Bontis, 1999; Roos, et al., 1997).

Human capital includes human factors owned by employees like skills, experience, education, knowledge, ability to achieve organizational goals (Edvinsson & Malone, 1997; Roos, et al., 1997).

Structural capital includes opposite to human capital factors and knowledge owned by a firm not by employees: patents, trademarks, databases, organizational structure, handbooks, strategies, corporate culture etc. (Bontis, 1999; Stewart, 1997).

When the structure of Intellectual Capital is chosen, the question arises of how to measure IC components value.

1.3. Intellectual Capital and Market Capitalization: literature review and hypotheses development

The key problem of intellectual capital measurement is driven by the fact that existing accounting systems ignore it. Consequently, there is no universally acknowledged approximation of intellectual capital in the literature. Every year researchers propose new approaches. It was stated that the best measures of intellectual capital are non-monetary, but these types of measures are subjective and not suitable for empirical research but in the same time direct measurement is

far from often use and due to intangible nature of IC, intellectual capital components are represented by a number of proxies.

In empirical works, Intellectual Capital structure components measurement could be divided into 2 approached: Proxy and VAIC. Proxy is a quantity approach that usually being applied with a variety of indicators for IC components, thus, the Human Capital could be indicated by number of employees or labor expenditures, Structural Capital could be indicated by R&D intensity, R&D expenditures and Relative Capital by adverting expenditures or revenue.

VAIC approach or Value Added Intellectual Coefficient was invented by Pulic (2000) and became very popular among researchers who investigate IC. VAIC coefficient shows the ability of firm to create value, it represents a measure for business efficiency in a knowledge-based economy (Ståhle et al., 2011). It's important to mention that VAIC is coefficient measured in relative form. VAIC represents the ability of company to use its resources efficiently. VAICTM measures how much new value was added per invested unit of resources.

As a wide concept, intellectual capital has been studied with different approaches a lot. The variety of definitions made it hard to understand and compare different researchers and approaches practically making it impossible. Though most scientists, practitioners and conclude about positive relationship between company's performance and IC elements or IC as a whole (Inkinen et al, 2014).

Most of the studies when it comes to investigation of relationship between intellectual capital and market capitalization concentrate on a specific industry or group of industries with similar intellectual capital factors and capital structure (Ustinova, Ustinov, 2014).

Finally, most of these studies either viewed intellectual capital within an organization as a whole or identified the traditional elements, which are human capital, structural capital and relational capital. This research is concentrated on one industry but several markets most of which are developed markets, it studies intellectual capitals which identified by traditional elements. Let's discuss surveys which correlate this research goal.

Sydler et al (2014) in their research dedicated to determination of the impact of intellectual capital on companies' financial results. The paper focuses on IC with a classic approach of determination of IC as a combination of human, structural and relational of a company. In this study 69 publicly traded pharmaceutical and biotechnical companies were used in modeling on which it was concluded that investment into intellectual capital leads to increase in intellectual capital assets in short-run and increase ROE in long-run.

Youndt et al. (2004) indicated through a study among 208 organizations that intellectual capital in the form of direct investments in human resource management, information technology and research and development explain slight differences in performance, arising from eventual differences in levels of social, organizational (structural) and human capital. Specifically, increase in return on investment and net less in the aforementioned stocks was observed.

Approach of centering on specific element of intellectual capital is some studies aimed to identify the influence of specific components of intellectual capital on the company performance.

Edvinsson and Malone (1997) explain and refer HC (human capital) measured based on total investment in salary and wages for firm. There are several successors of this approach. One of them is Alshubiri. By this opinion the mission of the survival and continuity working of the companies in the market is not as easy as they have the ability to cover its financial and non-financial obligations to gain a competitive advantage in the market. This would only be activating the role of human capital in companies to work efficiently and effectively. This study (Alshubiri, 2013) used industry sectors listed in ASE from 2005 to 2011. This sector plays an important vital role in economics. The results show there are highly positive significant relationship between the human capital investment and corporate financial performance measured by log of sales, log of total assets, interest coverage ratio, price to book value, return on equity, and dividend per share.

Boujelben and Fedhila (2011) in their research used intangible investments (R&D, advertising and other) and its lags to investigate investment's impact on cash flow from operating activity of the case of Tunisian companies. The main purpose of this research is to investigate the relationship between intangible investments (presented by the following proxies: R&D investments, advertising investments, training, quality and software acquisitions) and the ability of companies to generate future cash-flow from operations. This research shows significant positive effect of intangible investments on future operating cash flows. The research confirms that investments in R&D, investments in quality and investments in advertising have significant effects on future cash flows from operations. The found significant effects are long-term (to 3 time periods) for R&D and quality though the effect of investments in advertising is rapid and temporary. The investigation provides an empirical validation on the role of intangible investment in generating and sustaining competitive advantage. The significant effect of R&D and quality expenses indicates the role of these activities in adding value to the firm product, and hence in the creation of competitive advantage which allows the firm to manage the components of its operating cycle, especially cash received from customers, resulting in superior future cash flows from operations.

Cazavan-Jeny (2004) investigated the possible explanations for differences between a company's market value and book value. The main assumption behind this study is that this difference can be attributed to the invisible value of intangible assets omitted from financial statements. The sample of this study is composed by 63 French industrial firms observed over six years (1994-1999). All firms are listed on the Paris Stock Exchange. The intangible related variables included in this research model are activated intangible assets and GW (presented on the balance sheet) as well as expenditures in R&D, advertising, software, royalties and others. These variables were gathered by means of a questionnaire. The future results of work provided evidence about link between the capitalized goodwill and market-to-book ratio.

Chen et al.(2005) examined the relationship between intellectual capital and the firm's current and future financial performances. In research listed companies Taiwanese companies were included over the time period of 11 year. Innovative and relational capital as well as advertising expenditures are included in performance estimation models as ones of the constituents of intellectual capital. Regression results using lagged independent variables showed that the coefficient of R&D is positively associated with future profitability and revenue growth in long-term.

Another research is dedicated to investigation the efficiency of Malaysian public-listed software companies in transforming IC into corporate values. Three individual components were included in the analysis: value added intellectual coefficient as the input variables and Tobin's Q and ROE as dependent variables. The study shows that companies listed on the main market of Bursa Malaysia are less efficient than others listed on the ACE market

Based on the presented argumentation, elements of intellectual capital (human, relational and structural capital) are hypothesized to have relationship with company's value.

With this considered, the following hypotheses can be developed and tested through the empirical model, described in Chapter 2:

H: market capitalization has positive relationship with:

1. structural capital;
2. human capital;
3. relational capital.

To investigate the hypotheses, it was chosen to use investment approach and choose as IC elements proxies the expenditures on these 3 elements of intellectual capital which are presented

by expenditures on research and development (structural capital), labor and administrative expenditures (human capital), advertising and marketing expenditures (relational capital).

These hypotheses will be tested in 2nd Chapter with a sample of cosmetics industry companies. Cosmetics industry wasn't considered in one of the studies concerning intellectual capital and market capitalization relationship though the industry has significant intangible assets coefficient and might be considered as one of the high intellectual capital level industries.

CHAPTER 2. EMPIRICAL RESULTS OF RESEARCH

In general, research design is semi-experimental: the 1st chapter is devoted to literature review when this chapter is devoted to data and methodology observation and methodology application.

Due to the research paper structure the variety of methods will be used for different chapters writing. So, to proceed semi-experimental research design, firstly, in 1st is descriptive and 2nd analytical.

2.1. Methodology

2.1.1. Hypotheses

Most of researches reflect positive (significant or insignificant) effect of intellectual capital on company performance. Thus, we expect the same impact in case of cosmetics industry.

We believe that market capitalization depends not only on financial estimators and psychological market effects and market trends but also on investments in Intellectual Capital which lead to market capitalization increase. Under the hypotheses, we make an assumption that the results of the model will show significant relationships of intellectual capital and market capitalization.

In the research, we test the relationship between intellectual capital and market capitalization and our hypotheses are the following:

H1: there is *positive relationship* between *structural capital* and market capitalization in cosmetics industry;

H2: there is *positive relationship* between *human capital* and market capitalization in cosmetics industry;

H3: there is *positive relationship* between *relational capital* and market capitalization in cosmetics industry.

2.1.2. Model Description

Panel data (also known as longitudinal data) is a dataset in which the features of objects are observed across time, it means that panel data contain observations of multiple phenomena obtained over multiple time periods for the same firms or individuals. We applied panel data models to investigate relationship between market capitalization and intellectual capital presented by its elements.

To proceed the analysis, we used applied different types of panel data models and chosen the pooled model for the analysis.

The pooled model: we pooling or combining, all the observations in a panel and the regression function can be written as:

$$Y_{it} = \alpha + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \dots + \beta_k X_{k,it} + \varepsilon_{it}, \quad (1)$$

where

- i - denote the cross-section (object) identifier;
- t - the time identifier.

In pooled model the intercept and slope coefficients are constant across time and objects, and the error term captures differences over time and objects

The dependent variable is the market value of company or market capitalization.

The independent variables are divided into 3 groups:

1. Independent Variables

- general, administrative and labor investment which reflect human resources and leaderships side of the company and represent human capital;
- adverting and marketing expenses – are directly connected with branding and awareness of the brands and represent client's capital;
- research and development expenses - represent structural capital.

2. Control Variable

Control variable is a variable that is held constant in order to assess or clarify the relationship between two other variables. In this research revenue and total assets represent control variables group.

3. Industry Specifics Variable

This research is dedicated to cosmetics industry which has its own trends and specifics. One of them is that industry is presented by small number of multinational corporations often consolidated a lot of cosmetics brands inside of it but also out of them there are several multinational corporations which work not only on cosmetics market and have significant part of business in other fields, usually in health, pharmaceutical and home industries. To include such industry trends, we use dummy variable Industry Specifics Variable.

- Industry Specifics Variable = 1 if company has significant part of business in other industries;
- Industry Specifics Variable = 0 if company doesn't have significant part of business in other industries.

Thus, the model we use in this paper has the following formulation:

$$CAP_{it} = \alpha + c + \beta_1 HC_{it} + \beta_2 SC_{it} + \beta_3 RC_{it} + MD_{it} + \varepsilon_{it}, \quad (2)$$

where

- CAP – market capitalization;
- c – control variable (revenue);
- HC - Human Capital;
- SC - Structural Capital;
- RC - Relational Capital;
- MD – industry specifics variable.

1st and 2nd group of variables are presented by natural logarithm of mentioned data and its lags from period t-1 to period t-4.

To compare results and get deeper understanding on the issue of this paper another regression will be run. It is as well pooled model regression and presented by the following formulation:

Thus, the model we use in this paper has the following formulation:

$$TS_{it} = \alpha + c + \beta_1 HC_{it} + \beta_2 SC_{it} + \beta_3 RC_{it} + MD_{it} + \varepsilon_{it}, \quad (3)$$

where

- TS – Tobin's Q coefficient;
- c – control variable (revenue);
- HC - Human Capital;
- SC - Structural Capital;
- RC - Relational Capital;
- MD – industry specifics variable.

Tobin's Q coefficient represents the ratio of market value relation to replacement cost of the physical assets of the company. It represents the market expectation about the company and some researches consider Tobin's Q as representation of intellectual capital of the company. It is being interpreted the following way: if the coefficient is < 1 the market might underestimate the company and opposite

Further in this chapter we will run mentioned regressions to investigate the relationships between intellectual capital and market capitalization and check out the hypotheses.

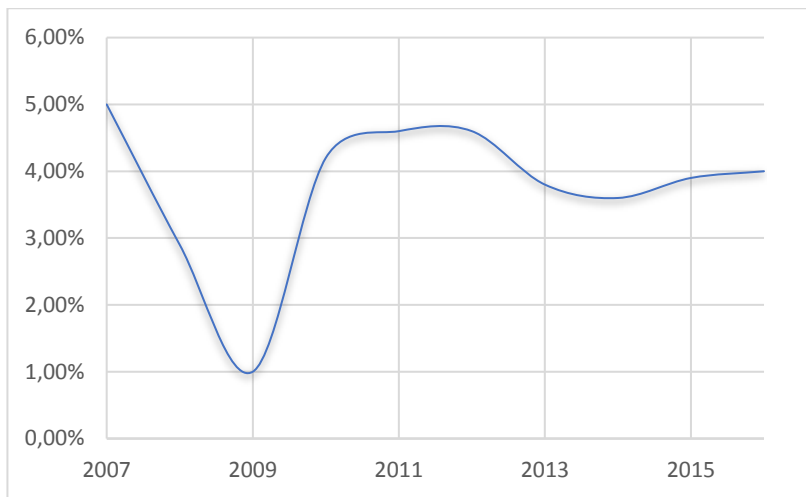
2.2. Industry and Research Data

2.2.1. Cosmetics Industry Overview

Cosmetics is considered as product, substance or the mixture which is used to complement the looks or beauty of a person. The history of cosmetics starts in Ancient times: the first historical appearance of cosmetics usage relates to Ancient Egypt and Sumer civilization around 5000 years ago. The most significant changes in cosmetics market were in 2nd half of 19th and 20th century: boom of cosmetics industry growth occurred with establishment of cosmetics giants like L'Oréal (1909), Max Factor & Company (1909), Shiseido Pharmacy (1872), The Estée Lauder Companies (1946) etc.

Nowadays cosmetics and beauty industry is stable growing, estimated at 205 bn.€ in year 2016. On Picture 2.1 the growth rate of worldwide cosmetics market over last ten year is shown. The industry has shown relatively stable growth and didn't meet the downward slope when the economic crisis took place in 2007 though the growth rate for the crisis period was slowing down and reached its minimum at point 1% in 2009. Since 2010 the growth rate of the industry can be described as stable with 3,5-5% annual growth. According to forecast by 2022 the market will keep upward slope with CAGR of 4.3%¹.

¹ Cosmetics Market by Category (Skin & Sun Care Products, Hair Care Products, Deodorants, Makeup & Color Cosmetics, Fragrances) and by Distribution Channel (General departmental store, Supermarkets, Drug stores, Brand outlets) - Global Opportunity Analysis and Industry Forecast, 2014 – 2022. Allied Market Research, 2016.



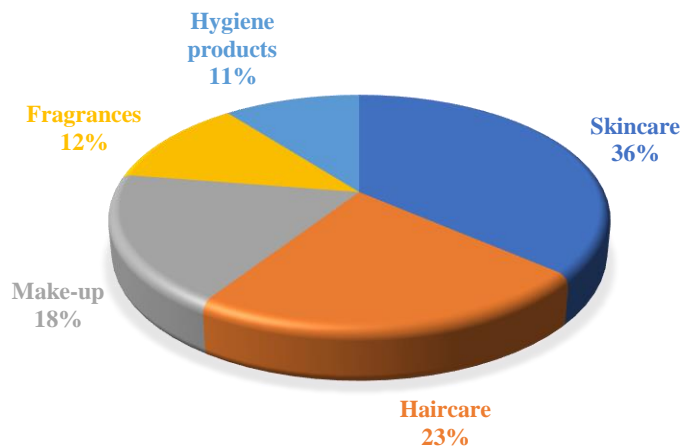
Picture 2.1 Growth rate of worldwide cosmetics market 2007-2016

Source: made by author

During history, the meaning behind cosmetics changed: from a special attribute of upper-class women to mass-market products, from special case make-up items to products for everyday use. Nowadays the beauty market includes various amount of products types which are presented by 5 product categories:

- Skincare – range of products aimed to support skin integrity, to relieve its conditions and enhance its appearance, protect from excessive sun touch.
- Haircare – range of products aimed to provide hair treatment for all hair types for everyday and professional use.
- Make-up – range of products used to fresh, color, beautify, change or greasepaint face and body.
- Fragrances – range of products used to fragrance the body including perfumes, colognes, toilet water etc.
- Hygiene products – range of products used for personal hygiene including soaps toothpastes, bath, shaving etc. This sector is widely using antiallergic preservatives ingredients.

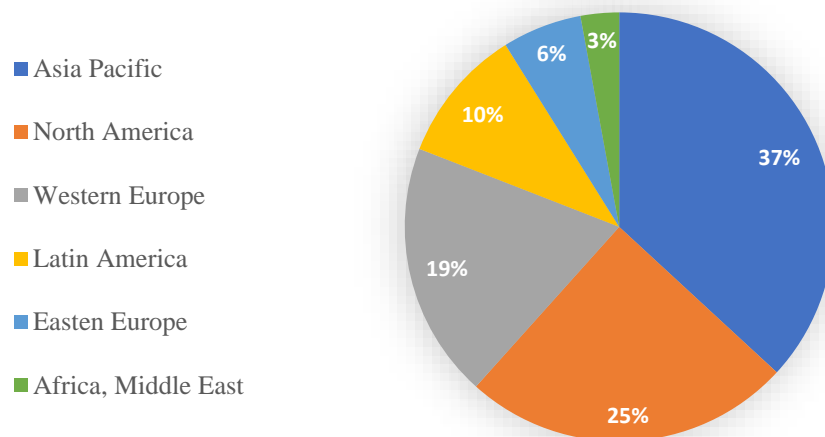
Nowadays skincare, haircare and make-up products lead the market, together taking more than 80% of the market. The worldwide cosmetics market by product share is shown on Picture 2.2.



Picture 2.2 Worldwide cosmetics market by product share, 2016

Source: made by author

By 2010-s geographic zones' shares of cosmetics market were sustainable. Since then it changes slightly: the main trend is increase of Asia Pacific share on cosmetics market which is caused by South Korea cosmetics sales boom across the world and increase of China's market share. The state of cosmetics market geographic shares by year 2016 is shown on Picture 2.3.



Picture 2.3 Worldwide cosmetics market by geographic zones' share, 2016

Source: made by author

The cosmetics market history was changing and different trends during the history appeared. Recently the new trends of cosmetics market development were formed:

- *Rapid growth of make-up segment.* Make-up segment is most rapid growing and drives cosmetics market growth across the world. For the 4th consecutive year

make-up segment growth achieves higher-than-industry growth rates with record in year 2016 8,4% rate.²

- *High influence of social media.* Social media and social networks stated to played an important role in cosmetics market development. The so call “selfie generation” is concentrated on the appearance and self-expression most, it creates trends and it is one of the key drivers for make-up segment rapid growth.
- *Increase of online sales share.* Now more than ever cosmetics is being sold via online stores. It gives opportunity for cosmetics companies to sell their products in the countries where they don’t represent their brand. In year 2016, online sales of cosmetics across the world have increased by 20,7%.³
- *Natural and organic cosmetics trend.* Recently customers became more aware of dangerous chemicals with the increasing trend for organic products (food, clothes). It created demand for natural products in cosmetics as well giving opportunity to natural cosmetics brands and stores.
- *Cruelty-free trend.* Trend for natural and organic cosmetics also had influence of awareness of production and testing methods and lead to developing new methods of cosmetic’s testing rather than on animals. In year 2000, The Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) was formed aimed to establish feasible, guidelines, recommendations, and regulations that promote the regulatory acceptance of new or revised scientifically valid toxicological tests that protect human and animal health and the environment while reducing, refining, or replacing animal tests and ensuring human safety and product effectiveness.⁴
- *Fashion designer collaboration.* Fashion and beauty have always gone hand-in-hand and in recent times more and more fashion houses go in beauty market creating their own cosmetics line. Lots of these lines are luxury segment cosmetics and the lines are being part of LVMH company presenting such cosmetics brands as Louis Vuitton, Givenchy, Guerlain etc.

² Annual Report, 2016. L’Oréal.

³ Annual Report, 2016. L’Oréal.

⁴ The Interagency Coordinating Committee on the Validation of Alternative Methods official website.

- *Celebrities' collaboration.* Case of collaboration with celebrities, singer, actors for perfume production is well-established. This trend of creating cosmetics product with celebrity changes nowadays with increase of social media influence and appearing new beauty start of modern world like fashion and beauty bloggers. It leads to appearing new collaborations not only with TV-celebrities but also with bloggers with creation of new product lines.
- *Men' cosmetics lines.* Make-up and cosmetics as whole historically were considered as women products though nowadays men more and more use cosmetics, cosmetics companies release special men lines of product

Manufacturing cosmetics market is highly concentrated with a small number of multinational corporations though the distribution and sales are presented by various number of small and medium businesses. The world's largest cosmetic companies are L'Oréal, Procter & Gamble, Unilever, Shiseido, and Estée Lauder, Avon, LVHM.

The cosmetics market is nowadays stable growing, the beauty and cosmetics industry changes constantly releasing new products almost every day. The new trends in the industry new development opportunities for cosmetics companies to penetrate new niches on the market and create new brands.

2.2.2. Research Data

To collect all the needed information the following sources were used:

- Market information about companies (share price, size, value);
- Financial statements of public companies;
- Bloomberg database;
- Reuters database;
- Yahoo Finance;
- Yahoo Charts;
- Google Finance;
- Informational letters of companies;
- Stake/shareholders reports.

It's important to identify the sample of cosmetics companies to analyses: due to the purpose of research we are working only with companies trading on stock market and being present

internationally on skin care, hair care, cosmetics, sun protection, make-up, perfumes markets. Totally we consider 10 companies in the research.

L'oreal is the leader on cosmetics market and it is the world's largest cosmetics company based in Paris, France. It has more than 100 years of history operating on all the mentioned markets, publicly traded and holding over 50 brands such as L'oreal Paris, The Body Shop, Giorgio Armani, Lancôme, YSL, Biotherm, and others.

Avon is an American international cosmetics manufacturer with direct selling approach. Company operates in beauty, personal care and household categories. Avon is separated into two companies:

- Avon Products, Inc., is a publicly traded company that operates in more than 70 countries worldwide;
- New Avon LLC is a private company operating in the United States, Canada and Puerto Rico.

These companies are the financial and commercial partners on the cosmetics market. The mission of the companies to make the world more beautiful.

Beiersdorf AG is a German company started the activity with small pharmaceutical business. It kept developing over time and nowadays Beiersdorf AG is world-wide successful consumer goods company. It has various number of brands, out of cosmetics one the most famous are NIVEA, Labello, Eucerin and Hansaplast.

Estee Lauder Companies Inc is an manufacturer operating on beauty market since first part of 20th century. It operates on mostly on prestige segment manufacturing prestige makeup, skincare, fragrance and hair care products and is based in New York City, USA. Estee Lauder Companies Inc owns a diverse portfolio of labels and trademarks with most significant part in professional and lux segments: M·A·C, Estée Lauder, Bobbi Brown, GLAMGLOW, Darphin, Smashbox, GoodSkin Labs, AERIN, Frederic Malle, Origins, La Mer, Lab Series, Osiao, Prescriptives. distributed internationally in up-market department stores, and has its headquarters in New York City.

Henkel & Co KGaA AG is one of the oldest companies operating on cosmetics market, it is a multinational corporation based in Düsseldorf, Germany. Out of all chosen companies the only one also operating in industrial sector and in consumer sectors. Henkel & Co KGaA AG operates globally and owns world famous brands as Fa, Persil, Schwarzkopf haircare and Schauma shampoo.

Johnson & Johnson is a multinational corporation based in USA. Johnson & Johnson is presented in various markets manufacturing not only cosmetics but also pharmaceutical and consumer goods, medical devices, baby products. Probably, Johnson & Johnson is most famous for Johnson's baby products or Acuvue contact lenses. Though it has world-wide famous cosmetics brands as Neutrogena (skin and beauty products) and Clean & Clear (facial wash).

Kao Corp is Japanese cosmetics and chemical company with headquarter in Tokyo. Kao Corp holds various brands such as John Frieda, Bioreu, Laurier , Merries, KMS , Success, Magiclean, Merit , Molton Brown and others. Lately started to appear on Russian market with growing of online cosmetics stores segment and online sales.

Procter & Gamble Co is one the largest consumer goods companies in the world. The company is also well known as P&G. P&G is an American multinational corporation in consumer goods sector. It has various products lines including not only cosmetics but food, beverages, cleaning products, cosmetics, personal care products. It does follow the cosmetics industry trends, for example, celebrities' collaboration trend which gave Christina Aguilera perfumes to the world. Procter & Gamble also does Max Factor cosmetics, Gucci cosmetics Dolce & Gabbana cologne and perfumes, Hugo Boss perfumes, Dunhill cologne, Escada perfumes and Lacoste colognes.

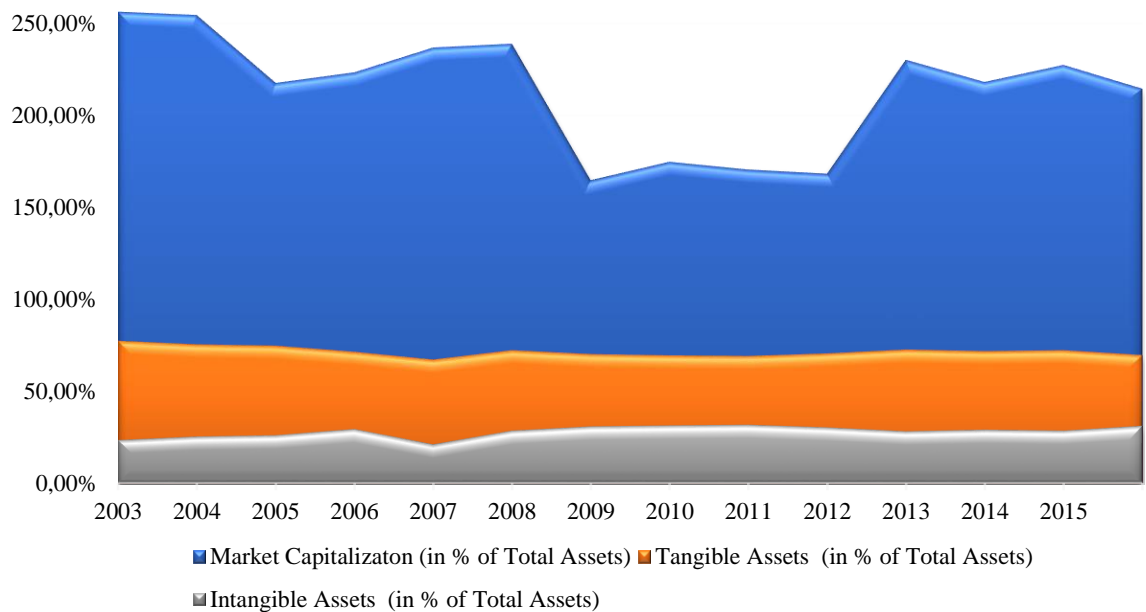
Shiseido Company, Limited is a Japanese multinational corporation, one of the oldest companies operation on cosmetics and beauty market. Shiseido manufactures different types of product lines such as personal care products, skin care, hair care, make-up cosmetics and fragrance. Shiseido owns several brands such as NARS Cosmetics, Shiseido, Shiseido Professional Hair, Zotos International, ISO Hair, Joico, Revital, Senscience, Qiora, Serge Lutens , UNO, UV White.

Unilever is one the largest consumer goods companies in the world. It's a multinational consumer goods company based in two countries with 2 headquarters: in London, United Kingdom and in Rotterdam, Netherlands, and. Unilever's product lines include cosmetics, homecare, food, beverages, personal care and cleaning products. Unilever has several brands in cosmetics like Timotei, Dove, Rexona and the others.

To test the relation between intellectual capital elements and market capitalization regression model analysis of panel data was applied which consisted of:

- 160 observations;
- 10 companies;
- 16 years.

Due to analysis of research data collected (Picture 2.4) amount (in percent of Total Assets) of market Capitalization, tangible and intangible assets were stated. Market capitalization in relation to assets is more vulnerable parameter which on average stayed around 214% of Total Assets for last decade. Though the cosmetics market is stable and market capitalization formation occurred years ago nowadays market capitalization is highly influenced by global market conditions and economic crisis.



Picture 2.4 Research Data Analysis

Source: made by author

Based on Picture 2.4 we observe industry assets structure changes: for the last decade, intangible assets stably grew up from 23,1% in 2003 to around 31% of Total Assets in 2016 (Table 2.1).

Table 2.1. Assets Structure Changes, 2003-2016

Average Amount	2003	2016
Tangible Assets (in % of Total Assets)	76,86%	69,20%
Intangible Assets (in % of Total Assets)	23,14%	30,80%

Source: Made by author

2.3. Analysis and Findings

In order to investigate relation between market capitalization and intellectual capital components we run separate linear regressions. The results of regression analysis are presented in Table 2.2. As it is seen from presented results:

- The relationship between Human Capital and market capitalization is positive;
- The relationship between Relational Capital and market capitalization is positive;
- The relationship between Structural Capital and market capitalization is positive;

Table 2.2. Empirical Results: Market Capitalization and Intellectual Capital Elements Relationship Regression Analysis Results

	const	HC	RC	SC	MD	c	R ²	R ² adj
CAP	-5.487*	0.733	3.604*	7.535*	-0.338*	1.525*	0.925	0.92

Source: Made by author

	const	HC ₋₁	RC ₋₁	SC ₋₁	MD	c	R ²	R ² adj
CAP	-5.487*	0.785	3.46*	7.382*	-0.339**	1.531*	0.921	0.916

Source: Made by author

	const	HC ₋₂	RC ₋₂	SC ₋₂	MD	c	R ²	R ² adj
CAP	-5.392*	0.598	3.256*	7.158*	-0.369**	1.524*	0.917	0.912

Source: Made by author

	const	HC ₋₃	RC ₋₃	SC ₋₃	MD	c	R ²	R ² adj
CAP	-6.011*	1.298*	3.272*	5.562*	-0.287***	1.571*	0.913	0.907

Source: Made by author

	const	HC ₋₄	RC ₋₄	SC ₋₄	MD	c	R ²	R ² adj
CAP	-6.011*	1.932*	3.232*	4.033* *	-0.128***	1.572*	0.915	0.91

Source: Made by author

*Coefficient is significant at 0,001% level.

**Coefficient is significant at 0,05% level.

***Coefficient is significant at 0,1% level.

Table 2.3. Formulas used for Variables Creation used for Market Capitalization and Intellectual Capital Elements Relationship Regression Analysis

Variable	Variable
c	ln(Revenue)
HC	ln (Administrative and Labor Expenditures)
HC ₋₁	lag-1 (ln(Administrative and Labor Expenditures))
HC ₋₂	lag-2 (ln(Administrative and Labor Expenditures))
HC ₋₃	lag-3 (ln(Administrative and Labor Expenditures))
HC ₋₄	lag-4 (ln(Administrative and Labor Expenditures))
RC	ln (Marketing and Advertising Expenditures)
RC ₋₁	lag-1 (ln(Marketing and Advertising Expenditures))
RC ₋₂	lag-2 (ln(Marketing and Advertising Expenditures))
RC ₋₃	lag-3 (ln(Marketing and Advertising Expenditures))
RC ₋₄	lag-4(ln(Marketing and Advertising Expenditures))
SC	ln (Research and Development Expenditures)
SC ₋₁	lag-1 (ln(Research and Development Expenditures))
SC ₋₁	lag-2 (ln(Research and Development Expenditures))
SC ₋₁	lag-3 (ln(Research and Development Expenditures))
SC ₋₁	lag-4 (ln(Research and Development Expenditures))
MD	Industry Specifics Variable

Source: Made by author

Thus, the hypotheses of the research have been confirmed and the following conclusion are done:

H1: there is relationship between *structural capital* and market capitalization in cosmetics industry. Proved.

Structural capital presented by Research and Development Expenditures has positive relationship with market capitalization. We investigated the relationship within time-period of 4 lags. Included structural capital elements are significant in short and long-term emphasizing importance of constant developing and investing in structural capital to capture the company's value position.

H2: there is relationship between *human capital* and market capitalization in cosmetics industry. Proved.

Human capital presented by Administrative and Labor Expenditures has positive relationship with market capitalization. We investigated the relationship within time-period of 4 lags. All included human capital elements are significant in long-term emphasizing importance of constant developing and educating personnel investing in company's human potential. Out of all intellectual capital components human capital has the weakest positive relationship with market capitalization.

H3: there is relationship between *relational capital* and market capitalization in cosmetics industry. Proved.

Relational capital presented by Marketing and Advertising Expenditures has positive relationship with market capitalization. We investigated the relationship within time-period of 4 lags. All included relational capital elements are significant in short and long-term and tend to have weaker relationship with market capitalization with time spend.

It is important so mention that control variable presented by revenue has significant relationship with market capitalization in short and long-terms. Market expectations which show up in market capitalization as well are partly build on financial results such as revenue. Revenue creates opportunities for market expectations and it could result on relationship between market capitalization and financial outcomes of the company.

Industry Specifics Variable and market capitalization have negative relationship significant in short and long-term.

To have more detailed and deep investigation on examining the relationship between intellectual capital and market capitalization we will refer to the next model based on the same principle but using Tobin's Q coefficient as dependent variable. The results of this modeling are presented in Table 2.4.

Table 2.4. Empirical Results: Tobin's Q coefficient and Intellectual Capital Elements Relationship Regression Analysis Results

	const	HC	RC	SC	MD	c	R ²	R ² adj
Tobin's Q	3.29**	0.58*	0.347*	0.11** *	-0.084	- 0.958*	0.406	0.366

Source: Made by author

	const	HC ₋₁	RC ₋₁	SC ₋₁	MD	c	R ²	R ² adj
Tobin's Q	2.77**	0.513*	0.294*	0.117* *	-0.177	-0.792*	0.358	0.316

Source: Made by author

	const	HC ₋₂	RC ₋₂	SC ₋₂	MD	c	R ²	R ² adj
Tobin's Q	2.07** *	0.248* *	0.185* *	0.129	-0.514	- 0.404* *	0.29	0.244

Source: Made by author

	const	HC ₋₃	RC ₋₃	SC ₋₃	MD	c	R ²	R ² adj
Tobin's Q	2.08	0.208	0.171* *	0.126	-0.558***	-0.354	0.277	0.213

Source: Made by author

	const	HC ₋₄	RC ₋₄	SC ₋₄	MD	c	R ²	R ² adj
Tobin's Q	2.001	0.222	0.171* *	0.105	-0.538***	-0.354	0.273	0.225

Source: Made by author

*Coefficient is significant at 0,001% level.

**Coefficient is significant at 0,05% level.

***Coefficient is significant at 0,1% level.

Hypotheses under this modeling were the following:

H1: there is *positive relationship* between *structural capital* and Tobin's Q coefficient in cosmetics industry;

H2: there is *positive relationship* between *human capital* and Tobin's Q coefficient in cosmetics industry;

H3: there is *positive relationship* between *relational capital* and Tobin's Q coefficient in cosmetics industry.

The hypotheses of this modeling have been confirmed and the following conclusion are done:

Structural capital has positive relationship with Tobin's Q coefficient, it is positive and significant in short run.

Relational capital has positive relationship with Tobin's Q coefficient, it is positive and significant in short and long-term.

Human capital has positive relationship with Tobin's Q coefficient, it is positive and significant in short and long-term.

Industry Specifics Variable and Tobin's Q coefficient have negative relationship significant in short and long-term.

Comparing this two modeling results we conclude that the hypotheses are proved: human capital, structural capital and relational capital and accordingly to each of them with market capitalization have positive relationships. The differences under these two models are lying in the different significant time periods.

Moreover, the Industry Specifics Variable has negative relationships with both market capitalization and Tobin's Q coefficient as well. Later on, in this chapter we will discuss the practical implementation of results and we will talk about market capitalization.

2.3.1. Recommendations and Managerial Applications

This research is based on a case of cosmetics and beauty industry and managerial contribution for it. Firstly, the findings and the results of analysis give knowledge for the managers. Managers understanding of how investments influence the final financial estimators or company's performance resources they could make perceived decisions on what that would be more beneficial for company, development and production.

Understanding the contribution of intellectual capital to company's performance could result in performance improvement based on perceived decision not only in the short run but also in the long run. Having such clear understanding on company's resources is crucial for the managers to manage and direct companies performance.

These findings might help, for instance, in case of making decisions about investments in the intangible assets when the amount of investments is limited. In the case of this research the most significant relation with market capitalization have the following resources:

- Structural capital and market capitalization relationship is positive and significant in short and long-term. These variables have the strongest relationship.
- Human capital and market capitalization relationship is positive and significant in only in the long-term (from t-3). Out of all intellectual capital components human capital has the weakest positive relationship with market capitalization.
- Relational capital and market capitalization relationship is positive and significant in short and long-term.

Industry Specifics Variable and market capitalization have negative relationship significant in short and long-term meaning that companies with diversified businesses on average in the short as well as in the long perspective tend to have lower company's value.

Recommendation to the case companies to focus on the highlighting the importance of paying attention on the intellectual capital important role in creating not only value inside company but also company's value as whole. Another recommendation is about further analysis based on internal data: in this research, we were limited by open-source data and mostly by consolidated financial statements, insight company analysis would be a great tool for deeper understanding relations between intellectual capital and market capitalization including geographic factors, internal estimations of brands values etc.

2.3.2. Limitations and Suggestions

This paper contributes to the Intellectual Capital research field from the following perspectives:

- The paper attracts attention to the phenomenon of Intellectual Capital and market capitalization relationships;
- This research is dedicated to the problem of Intellectual Capital and Market Capitalization Relationship in case of cosmetics industry, which wasn't a case of such investigation. This research covers the research gap in context of cosmetics case industry;
- This research contributes to regular decision-making routine and provides tools for understanding long-run decision-making outcomes;

There are some limitations that should be mentioned and taken into account in further research on this topic.

The major limitation is associated with only consolidated financial data. The chosen sample for this research is sufficient but for future development of the scientific issue on this industry more companies must be included in the sample and observed.

To concentrate on the case of one company more elements of Intellectual Capital could be included (geographic factors, internal estimations of brands etc.) and for case of diversified companies working in several industries more detailed information on business unit expenditures should be included in the data sample.

Suggestion for the future researched will be, first of all, about to explore deeper the importance of Intellectual Capital and there are opportunities for the cosmetics industry as well. This research contributes to regular decision-making routine and provides tools for understanding long-run decision-making outcomes and helps to make these decision in limited resources (investments) environments. The further development of this research and studying the relationships between elements of intellectual capital could give the further, deeper understanding of investment decisions and market capitalization changes.

Moreover, from the industry specifics perspective this empirical approach could be applied for similar to cosmetics industries: manufacturing companies with high amount of tangible assets but with high proportion of intangible assets among manufacturing industries.

CONCLUSION

Intellectual capital is unique way for company to add value and increase its competitiveness: evolution of economy has causes significant changes on global market and now we observe the era of intellectual capital for companies: currently more value added is created by intangibles rather than other types of assets.

Companies operating in cosmetics industry are strongly interested in adding value by intellectual capital due to high percent of already possessed intangible assets and continuous research and development activities, requiring huge money investments.

This paper is devoted to intellectual capital and market capitalization relationship in the case of cosmetics and beauty industry. The goal of research was to investigate this relationship. The empirical results were conducted for 10 companies and 16 years of observations and have shown positive relation between intellectual capital elements and market capitalization. The intellectual capital elements have long-run positive relations with market capitalization and the research findings might help, for instance, in case of making decisions about investments in the intangible assets when the amount of investments is limited. In the case of this research the most contributing to market capitalization are the following resources: structural and relational capital.

This research is dedicated to the problem of Intellectual Capital and Market Capitalization Relationship in case of cosmetics industry, which never was a case of such investigation. This research fulfills the research gap in context of cosmetics case industry.

This research contributes to regular decision-making routine and provides tools for understanding long-run decision-making outcomes.

The main limitations of this research are associated with consolidated financial data. Though sample for the purposes of this research is sufficient considering wider sample with more observations included or more intellectual capital elements from internal company's information could be the next step of developing this paper and its results.

The main suggestions of this paper are associated with the mentioned above limitations. Moreover, this research could be developed further by investigating the cross intellectual capital elements relations which would be a great supplementation for this research and this research could be developed further to similar-to-cosmetics industries in terms of capital and financial structure to investigate relationship in cross-industries analysis.

This paper contributes to the theoretical and empirical studies of Intellectual Capital and company's value problem and discussions on this topic. The empirical results could be interpreted from managerial perspective, it brings suggestions about decision-making implementation of this tool and gives suggestion on further development of this research.

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