St. Petersburg University
Graduate School of Management
Master in Corporate Finance

DETERMINANTS OF BRAND VALUE
(CASES IN BANKING INDUSTRY)

Master's Thesis by the 2nd year student:
Isaeva Iuliia

Research advisor:
Associate Professor, Anna E. Loukianova

St. Petersburg
2018

ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Исаева Юлия Юрьевна, студентка второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему «Выявление факторов, влияющих на ценность бренда (на примере финансовой отрасли)», 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 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)

____ (Дата)

STATEMENT ABOUT THE INDEPENDENT CHARACTER OF THE MASTER THESIS

I, Isaeva Iuliia Yurievna, second year master student, program «Management», state that my master thesis on the topic « Determinants of Brand Value (Example of Banking 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.

I am aware that according to paragraph 9.7.1. of Guidelines for instruction in major curriculum programs of higher and secondary professional education at St.Petersburg University «A master thesis must be completed by each of the degree candidates individually under the supervision of his or her advisor», and according to paragraph 51 of Charter of the Federal State Institution of Higher Education Saint-Petersburg State University «a student can be expelled from St.Petersburg University for submitting of the course or graduation qualification work developed by other person (persons)».

____(Student’s signature)

____ (Date)

АННОТАЦИЯ

Автор	Исаева Юлия Юрьевна
Название магистерской диссертации	Выявление факторов, влияющих на ценность бренда (на примере финансовой отрасли)
Образовательная программа	Менеджмент
Направление подготовки	Корпоративные финансы
Год	2018
Научный руководитель	Лукьянова Анна Евгеньевна
Описание цели, задач и основных результатов	Цель данного исследования – выявить факторы, влияющие на ценность бренда коммерческих банков в Российской Федерации Для достижения цели были сформулированы и выполнены следующие задачи: - изучение особенностей оценки стоимости бренда - обзор существующих методов оценки стоимости бренда - разработка регрессионной модели для тестирования сформулированных гипотез; - сбор необходимых данных и проведение эмпирического исследования; - формулирование практических рекомендаций, основанных на результатах исследования. В ходе исследования был получен следующий результат: плохое качество активов и высокий уровень ликвидности негативно взаимосвязан со стоимостью бренда. К тому же, стоимостью бренда крупных банков не взаимосвязана с диверсификацией доходов, однако есть положительная связь между стоимостью бренда малых и средних банков и диверсификацией доходов.
Ключевые слова	Оценка стоимости бренда, выручка коммерческих банков, качество активов, ликвидность, диверсификация доходов

ABSTRACT

Master Student's Name	Iuliia Y. Isaeva
Master Thesis Title	Determinants of Brand Value (Example of Banking Industry)
Educational Program	Management
Main field of study	Corporate Finance
Year	2018
Academic Advisor's Name	Anna E. Loukianova
Description of the goal, tasks and main results	The goal of this study is to define determinants that influence on brand value of commercial banks. The main objectives of the study are the following: - to study the specifics of brand valuation in banking industry; - to conduct literature review on brand valuation methodology and define approach for Russian banks; - to develop the regression model for testing the developed hypotheses; - to gather necessary data and to conduct empirical study in order to identify the factors that have an impact on brand value; - to develop managerial implications of the obtained results. The result of this study is following: there is a negative relationship between poor asset quality and liquidity of banks and their brand value. And there is no relationship between brand value of large banks and income diversification, but there is a positive relationship between brand value of small and medium banks and income diversification.
Keywords	Brand value, revenue of commercial bank, asset quality, liquidity, income diversification

Table of Contents

INTRODUCTION

Brands are presented at our everyday life and may often be mixed with the object or service they are attached to. The total value of the world’s 500 biggest companies brands continues to increase every year, growing skyward by 10.2% over the last year to US$1.18 trillion, with strong performance in many countries of the world (Annual report on the world’s most valuable brands prepared by Brand Finance, 2018).

One of the most strategic intangible assets kept by a firm are brands. The International Standard ISO 10668 propose a definition: “Intangible assets are recognized as highly valued properties. Arguably the most valuable but least understood intangible assets are brands” (2010). “Crisis situations, scandals and developing demand in accountability services have triggered an incessant progress to higher quality fair value measurements, brought by better qualified valuation practitioners” (Forsythe, 2015).

As reported by CEO of Brand Finance, David Haigh, the main goal of a strong brand is to make money. Nowadays, companies have to deal with brand-building and brand-management, as the brand is one of great significance and most firm and stable assets of any company for growing competition in the market. The brand value is as an indicator of its success in the market. A company that uses the concept of branding (brand-oriented company) can create added value for the consumer (as well as for stakeholders) and, as a result, increase the value of the company. This necessitates the management of brands. Thus, as a general goal, the brand-oriented company places the achievement of the leading positions in the market. Consequently, there are following strategic objectives of the development of a brand-oriented company:

- increasing the company's market share;
- increasing the market value of the company;
- increasing the share of brands in the company's capitalization

Many factors influence a company’s performance. Considering firm’s assets as determinant to increase its value and to add competitive advantages. All assets are divided to tangible assets and intangible ones, so brands as an intangible asset also can be considered as a value creation tool for the company and its shareholders.

Intangible assets proceed to be the greatest assets to companies nowadays. In the annual ranking of the 500 most expensive brands in the world it showed a complete reversal over the past 40 years - intangible assets had gone from representing 17% of the value of the S&P 500 in 1975 to 84% of its value in 2015 (Figure 1).

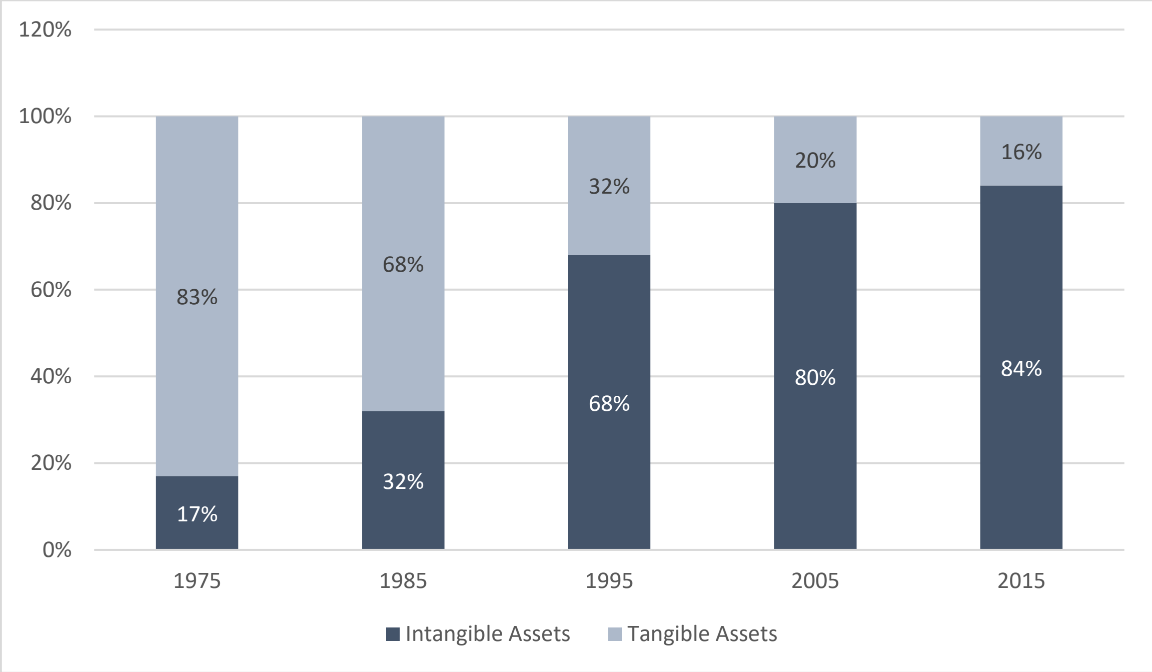


Figure 1.1 Components of S&P 500 Market Value. Source: annual study by Ocean Tomo

These results show the role of Intangible assets. To stay competitive at current market, CEO and top-managers have to develop and leverage its Intangible assets.

The goal of this study is to define determinants that influence on brand value of commercial banks. In order to achieve the goal, several bank-specific factors: Asset structure, Loan portfolio, Asset quality, Liquidity, and Income diversification on revenue of commercial banks and their relationship with a bank's brand value were considered.

The main objectives of the study are the following:

- to study the specifics of brand valuation in banking industry;
- to conduct literature review on brand valuation methodology and define approach for Russian banks;
- to develop the regression model for testing the developed hypotheses;
- to gather necessary data and to conduct empirical study in order to identify the factors that have an impact on brand value;
- to develop managerial implications of the obtained results.

The thesis consists of three chapters: theoretical background, analysis of existing method and empirical study. The first section describes concepts of brands and specific features of the assessment of brands of commercial banks. Then, critical review of existing studies about method of brand valuation is provided.

The second chapter is devoted to analysis of existing methods of brand valuation and discuss advantages and disadvantages of each method. We are going to explore the problems of each method and to determine the most appropriate ones. The criteria for the choice will be public access to the information and the minimum number of subjective assessments that are that are used in the brand valuation process.

The third section begins with hypothesis formulation, explanation of methodology and data collection process. Then, the resulting sample is analyzed, and regression analysis is conducted. The paper is concluded with discussion of the findings, their theoretical and managerial implications and suggestions for further research.

CHAPTER 1. THEORETICAL BACKGROUNDS OF THE BRAND VALUATION

1.1. Brand as a factor in the growth of company value

A brand is a complex concept that does not have clear boundaries. The material embodiment of brands is considered as trademarks. In Russia, the market of trademarks developed at the turn of the 20th - 21st centuries. From 1997 to 2008, the number of trademarks registered with the Federal Service for Intellectual Property, Patents and Trademarks grew steadily (17,701 in 1998 against 41,587 in 2016). And although all facts confirm that trademarks are the objects of investment of many companies, but there is no understanding that a brand is such an object only in its complex concept, which goes beyond the mere trademark.

This complexity is manifested in the fact that the brand unites a lot of various intangible assets, and therefore can bring additional benefits to its owner only with the full undivided interaction of its constituent elements. This formulation of the problem requires an integrated approach and to the evaluation of brands, which would allow not only to answer the question of the cost of such a specific asset, but also to justify it, by singling out and evaluating brand-forming elements separately.

The search of the academic publications on the theme “brand concept” in the EBSCO database from 1960 to 2017 represents that 87% of the articles were related to 2006-2017 years, and 58% were published from 2011 to 2017. The recent attention to brand concept explains by the positive outcomes that were obtained by managers and practitioners.

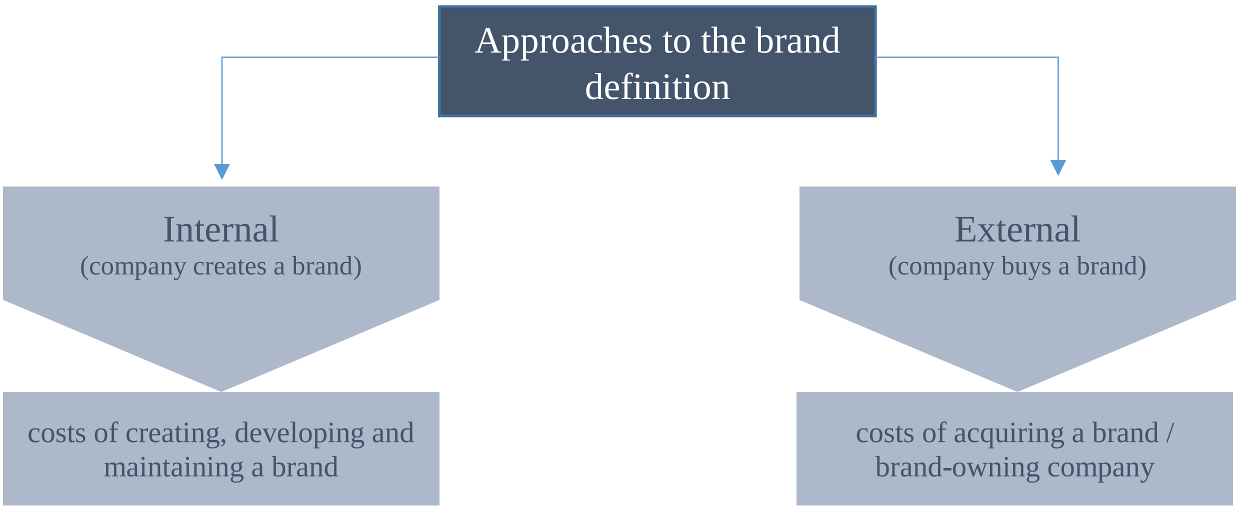


Figure 1.2 Approaches to the brand definition. Source: created by author

Brand as a tool for achieving the leading positions in the market (internal approach)

Table 1.1 Brand concepts

Year	Author	Brand concept
Foreign researchers		
1951	D.Ogilvy	A brand is a sum of product properties: name, packaging, prices, history, reputation and way of advertising. The brand is also a combination of impression that it produces on the consumer as a result of their experience in using brand.
1990	L. D'Chernatoni, D. Riley	A brand is an identifiable product, service, person or place created in such a way that a consumer or buyer perceives a unique added value that meets his needs in the best way.
1995	K. Beauvais, U. Ahrens	The brand is a set of utilitarian and symbolic values designed to meet the functional, social, psychological, economic and other needs of the consumer.
1998	F. Kotler	A brand is a name, term, symbol or design (or a combination of all these concepts) that denote a particular type of product or service of a particular producer (or group of producers) and distinguishes it from goods and services of other producers.
2001	D. D'Alessandro	A brand is more than advertising or marketing. This is all that comes to the person's head regarding the product, when he sees his logo or hears the name.
2002	A. Ellwood	A brand is an aura surrounding a product or service that demonstrates positive aspects and distinguishes it from the goods and services offered to the consumer by competitors.
2015	S. Kaznacheeva	A brand is the associations in the minds of people with particular product, service, person or place; a set of feelings, emotions, impressions, experiences associated with it. Brands are created in order to simplify the life of the consumer. The brand with its slogan or logo provides to the consumer all the information, on the basis of which he makes a decision to buy.
2015	Kotler & Keller	Branding is endowing products and services with the power of a brand
2015	P. Fisk	Brands are: a reflection of customers, uniquely shared value(s), and potentially the most valuable business asset
2015	P. Fisk	A great brand captivates people emotionally & irrationally, is about them and what they want to achieve, ultimately make life better.
2015	P. Fisk	Brands are a bridge to new products, categories & markets, to sustaining & growing business in a world of relentless change.
2016	Brown	Brown (2016) develops on the classification of brand names by looking to distinguish what makes up a good brand name. He developed a P's (People, Places, Products, Pacts) and Q's of brand names (Quaint, Quant, Quirks, Quips).
Russian researchers		
2000	I. Muromkina, Evtushenko	A brand develops in time - from the brand as a concept consisting of known elements (brand name, style, slogan) to a clearly perceived by the buyers a combination of functional and emotional elements that are connected with the product itself and the way it is presented.
2003	E. Golubkov	A brand is a special label that makes it possible to distinguish a

		given product from others and symbolizes its value.
2006	E.V. Seregin, E.V. Popov	A brand rand - a combination of functional and emotional characteristics of goods and services that exists in the minds of the consumers. The brand determining the individuality of the goods and services that encourage the consumer to prefer this product or the service of a certain target category of people.
2006	F.I. Sharkov	A brand is a system of symbols that identify any object (organization, product (service), personality), a feature of which is ubiquitous prominence and a stable fixation in the mind of the target audience.
2009	V.Tamberg, A. Badin	A brand is a unique and attractive image that can spread to specific products. The integrity of the brand is achieved by the constant delivery of the same idea in all communications, uniqueness is a consequence of the difference of this idea from the ideas offered by the brands of the competitors. The attractiveness is a natural result of the proximity of this idea to the internal world of the consumer.
2014	Y. Mozgovaya	A brand is a specific name, trademark, symbol, design, as well as other attributes and their combination used by the target group to identify the goods in a group of similar ones. Whereas trademark has in its structure a specific tag (label), as well as other legally protected elements and considered as a legal concept, a brand that relates not only to economic, but also to psychological, emotional and spiritual categories.
2015	I. Romanova	A brand is a combination of special properties and attributes of the product, representing a lasting impression, a whole image that arises in the minds of the target audience on the basis of established stereotypes and personal experience.

Source: created by author

Brand as an investment tool (external approach)

The starting point for searching the answer "what does the investor exactly acquire in case of buying a brand", is the definition of the American Marketing Association. According to it, a brand is a name, a term, a sign, a symbol or design or their combination for identity of certain goods or services from similar offers of competitors. The name is the main component of the brand. Many companies eventually change their name to the name of their most popular brand.

Brans have a powerful role in M&A deals due to its significant contribution to shareholder value. To benefit from selling or buying and maximize the proceeds from the value of brand assets managers assess brands. A brand value assessment can be useful in four key points. To begin with, if a brand is the main driver of a business, brand value assessment is the core of valuation process. Secondly, when the subject of M&A transactions is brand, the determination of brand value is the only way to assess transactions. Thirdly, if after merger two companies are looking to operate under one brand, they need to decide which brand is more valuable. Finally, for accounting purpose it is essential to evaluate brand to know the exact amount to include on the balance sheet. The brand valuation framework is used to assess the cost of synergies and as well as to determine the manufacturing and distribution thresholds.

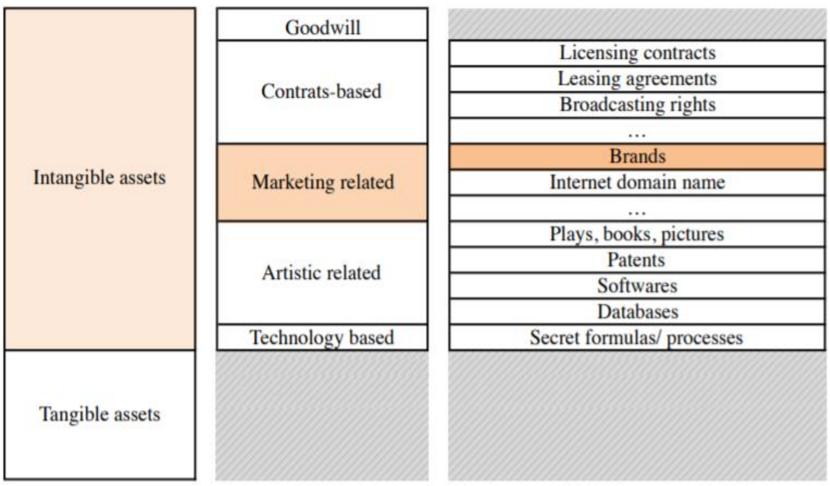
Thus, the most important conclusion, based on various definitions of brands is the following: a brand is not a type of intangible assets but it is a portfolio of intangible assets which give the company maximum added value. The condition for the object to appear in any market (and in particular in the M&A market) is the availability to calculate its value. Thus, in order to continue the analysis of the brand in the context of this paper, it is necessary to consider different approaches to brand evaluation.

Considering brand as the key strategic assets of the company leads to increasing role of brand valuation. However, despite the relevance of the problems, in professional literature it is not always possible to find a holistic and balanced approach to studying the problem of both the financial evaluation of the brand and the concept of the brand.

Globalization, technology development and the emergence of Internet business are the factors that led to competition and forced the company to pay more attention to intangible assets, including brands, as one of the main ways to create competitive advantages and build customer loyalty. Moreover, a clear trend was seen when companies that owned strong brands, showed high results in the financial markets. All this led to the fact that managers came to the need to identify what value the brand carries, how this value is created and how it can be assessed.

From a financial point of view, brands are part of intangible assets, as opposed to tangible ones, which mainly include real estate, production and technical equipment. Within the intangible assets side, they have to be distinguished from patents, buy-sell agreements, customer lists, specific rights (distribution rights, airport slots, domain rights), loans portfolios, permits, trade secrets etc. as shown in table 1.2.

Table 1.2 Locating brands in a balance sheet



Source: OECD study – Valuation of intangibles under IFRS 3R, IAS 36 and IAS 38, Jim Eales (2011)

The ISO 10668 standard (2010) defines brands as "marketing-related intangible assets including, but not limited to, names, terms, signs, symbols, logos, designs, or a combination of these, intended to identify goods, services and/or entities creating distinctive image and associations in the minds of stakeholders, generating economic benefits/values". The English law adds to this definition the "promise of an experience", encompassing the quality, service and/or specific design the customer is expecting at buying the underlying asset. It adds that brands are above all "reputational" assets, based mainly on the beliefs of customers. Brands are thus not to be confused with possible other intangibles they support (e.g. patents in the case of a medicine brand like Doliprane). Salinas (2009) proposes three different scopes for brands definition:

- Name, logo and other visual elements;
- Name, logo, other visual and verbal elements and associated intellectual property rights;
- Organizational brand: this is the broader definition, referring to the organizational aspects of the brand and to what we will call later branded companies or businesses.

In financial statements, low or no information is given on the economic value of brands. Book value often misrepresents it. Indeed, according to IFRS 38, brands developed internally should not be registered in balance sheet. Only brands acquired externally are to be registered at cost of acquisition and impaired once a year if needed. The example of Apple given in introduction shows the gap between the estimated fair value of the brand and its book value.

As explained by Rita Chraïbi in La Revue des Marques, market capitalization and its variations reflect, behind the market value of shares, the value of the firms underlying intangible assets. If we consider that the market capitalization is a reliable measure of a firm's equity value, the difference between market capitalization and equity book value should capture a significant part of the value of intangible assets not properly registered in the books. Nevertheless, these intangible assets do not correspond exclusively to brands, they can refer to patents, human capital, growth perspectives, knowledge or any other intangible asset booked at a value lower than fair value or not booked at all. Simply looking at the stock price of a company cannot thus lead to a perfect brand valuation, but only to a ceiling value.

However, being able to compute the fair value of a brand is useful in many situations faced by a company. A firm needs to be able to put a number on the name for the following purposes (not exhaustive):

- To buy or sell a brand (Unilever selling Lipton for example), - To license or franchise it to a tier company (Subway, McDonalds)

- When involved in a litigation, for tax purposes
- For accounting compliance (impairment tests, purchase price allocation)
- For managerial purposes, to better understand the drivers of its success and adapt its marketing strategy.

1.2. Methods to brand evaluation

Not only marketers but also top managers, financial managers and even CFO of different companies are engaged on evaluating the value of brands. But all of them use various criteria and measures to emphasis different key figures. Depending on a monetary component and differences in the brand equity concepts, it is considered to classify on

• economic methods, the models of which reflect the assessment of financial capital;

• composite methods expressing the assessment of consumer capital.

Under accounting pressure investigations of brand value methods are traced back to Mergers & Acquisitions boom in 1980s. Prior this moment several researchers have already highlighted brand valuation methods for manufacturing companies, however to calculate brand value for companies which provide services (for example, for bank) appears more difficult than for products.

Keller (1993) emphasized that consumer's thoughts about brand create people' reaction on promotion activities for the brand. The concept is simple: the ability to build a strong brand is completely depending on what customers think and feel about your company. Keller's Brand Equity Model includes four steps, both of which, the top and bottom steps, consist of one building block and intermediate steps consist of two building blocks each. The idea is that following these steps managers can achieve the top of pyramid and build strong brand.

Aaker (1996) presented four categories of brand equity: brand awareness, brad loyalty, brand associations and the quality – that create advantages or disadvantages for the clients and for company. Based on his four categories, he proposed "10 brand equity" concept to measure brand equity. Aaker also assumed that customer-oriented policy and customers' level of satisfaction underlie the brand valuation.

Agarwal and Rao (1996) found 11 measures of brand equity that can be united into five sections: brand awareness, brad preferences, perception, choice planning and real choice.

Motemani and Shahrokhi (1998) split up global and regional/local characteristics of the brands. They presented a model called Global Brand Equity which combines sustainability and economy from the one side and local features from the other.

Cravens and Guilding (2000) pointed out that internal managerial decisions based on brand valuation are more valid and justified. Brand value acts as reasonable indicator in creating value. The researchers recognized a correlation between market-oriented strategy and customer-oriented policy of the company.

Rust (2004) tested a return on marketing approach to change focus from product – oriented model to customer – oriented model. The product – centered strategy fail to measure customers' ability to switch among brands, so Rust's hybrid model include three drives relating to the hearts and minds of the clients.

In 1990 Barwise proposed financial view on brand value. According his investigation, incomprehension of future benefits attributed to the brand by accountants lead to problems with brand value disclosure in the balance sheet. Respectively, the level of trust to this information is quite low.

Leone et al. (2006) concluded that focus on customers helps to create value by selective differentiation of marking programs. This approach allows to markup higher price premiums and, as a result, branded goods generate growing streams of revenue. The authors stated that 'front end' of marketing activities is related to brand equity, whereas 'back end' is oriented on customer equity.

Farquhar et al. (1992) found that disclosure of brand value in financial reports should be complied with following rules: the figure of acquired brand is reported on its transaction price; the brand capitalization is adjusted for impairment loss and less than present value of companies' net profit. All these rules were created according to US accounting standards.

Simon and Sullivan (1993) established an approach to measure positive cash flows generated by the brand. Based on the stock market, the researchers determined the brand value making a breakout in the brand valuation theory. However, the scope of applications is restricted by negotiable on stock exchange companies.

Viewed from Tollington (1998) perspective, brand asset should be reported separately from goodwill. Tollington believed that the only reason to include brand value on balance sheet is the acquisition process and treated to brand assets as a subheading of goodwill.

Schultz (2002) moved from traditional "value-based" methods based on historical information to new value created approaches. Focusing on future cash flows, potential market share, brand investments and profit generated by brand, Schultz explained the relations between the brand value and entities' performance.

Yeung and Ramaswamy (2007) examined a pull of 50 companies from 2000 to 2005 performance in the USA. In the stock market strong relations between brand equity and company's performance were found. Relevant and credible results of research prove the necessity of including brands in the financial reports.

From the perspective of the company, the benefit of increasing brand value is increasing the value of the company. In financing negotiations such as M&A, licensing and joint ventures, high brand value is one of the explanations for excess of the market capitalization over its book value. In cases when company is aimed at increasing banks' attractiveness for investors, increasing its brand value will lead to increase in value of the bank.

Another benefit of increasing brand value is improving Stock market performance. Brands and stock market performance are connected by a definite linkage. Banks with powerful brands create more shareholder value and outperform the market by some financial measures. According to Kosmidou et al. (2014), average monthly return of investment portfolio of banks with powerful brands yields exceed by 1% average monthly return of sample of similar companies. Not only brands yields are higher than market average, but also risks defined by volatility of cash flows are under market average. Companies with powerful brand portfolio outperform the market as well as do so with lower level of risk.

CEOs and managers represent another group of people who may benefit from the result of the research. The may monitor brand development strategies the bank managers used and make sure that increasing brand value is used to improving financial ratios. The impact of brand performance on financial ratios is also significant. Liquidity ratios such as current ratio and quick ratio, which measures a company's ability to meet cash needs as they arise, are better for strong brands. The strong brand portfolio also outperforms benchmark groups in leverage ratios such as times interest earned – a measure of the extent of a firm's debt relative to equity and its ability to cover interest and charges. Most importantly however, strong brands demonstrate greater return on equity. Profitability ratios, such as gross profit margin, operating profit margin, net profit margin and return on equity all indicate higher overall performance and greater efficiency in managing assets and liabilities. To add, managers may plan and develop a Brand – oriented strategy for the bank by measuring the returns of marketing investments.

Summary of Chapter 1

In Chapter 1, main findings of the literature review on brand concepts and brand value were presented. Until 1980, intangible assets are not precepted as main source of assets in balance sheet. However, different approaches to find a value of intangible assets were found. The fundamental reason to investigate brand value was an excess of the market capitalization of companies over its book value. Today, in foreign countries international consulting agencies publish a list of the most valuable brands in the world. Moreover, foreign researchers focus on intangible assets and brands investigating its impact on company success. Decisions about company's brand are of the most significant for all parts such as CEO, CFO and Chief Marketing Officer (CMO) during developing a brand strategy.

Today, the role of brands is so high that some companies' strategies based on their brands. For example, in China and other Asian countries investors are seeking strong brands and owners of the brand try to improve Stock market performance by using brands. Capital investments is not the only thing for evaluating banks from investing perspective. Brand value which shows the market share and distinguishes a competitive advantage is also vital in decision-making processes. Investors are interested at banks with powerful and valuable brands that provide high dividend yield and low volatility.

CHAPTER 2. ANALYSIS OF METHODS OF BRAND VALUE

2.1.Brand valuation of commercial banks

Intangible assets proceed to be the greatest assets to companies nowadays. In the annual ranking of the 500 most expensive brands in the world it showed a complete reversal over the past 40 years - intangible assets had gone from representing 17% of the value of the S&P 500 in 1975 to 84% of its value in 2015 (Figure 2.1).

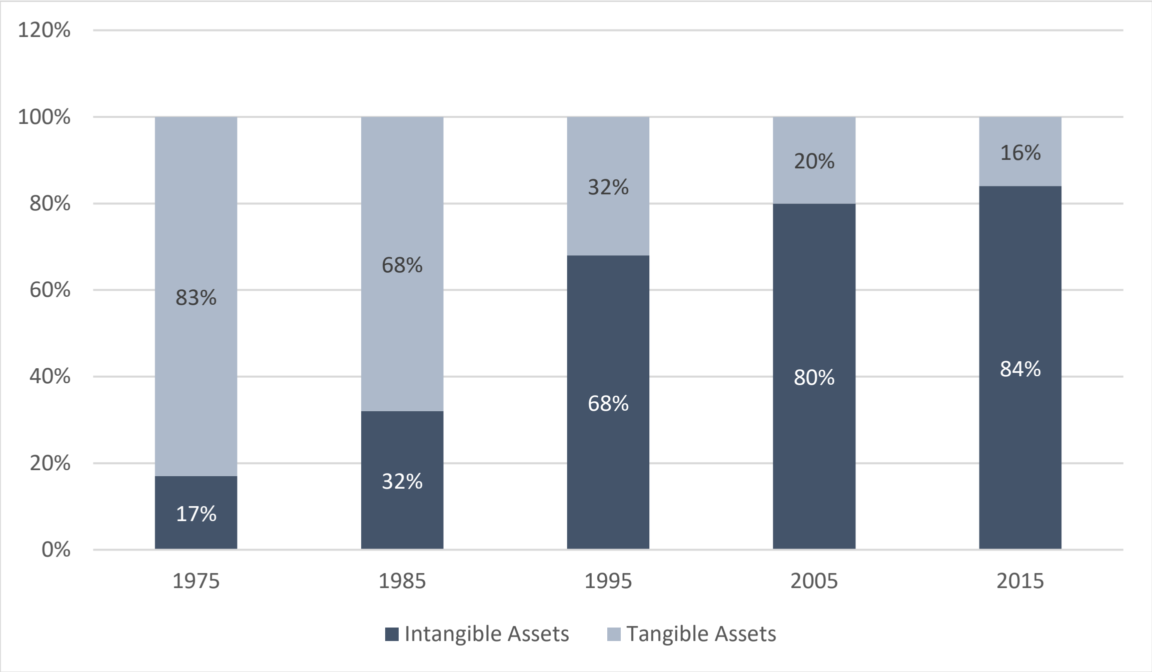


Figure 2.1 Components of S&P 500 Market Value. Source: annual study by Ocean Tomo

These results show the role of Intangible assets. To stay competitive at current market, CEO and top-managers have to develop and leverage its Intangible assets. More detailed distribution of Intangible assets among industries is represented on the Figure 2.2 Level of Intangible assets in Banking and Software industries has reached more 80% of the total value.

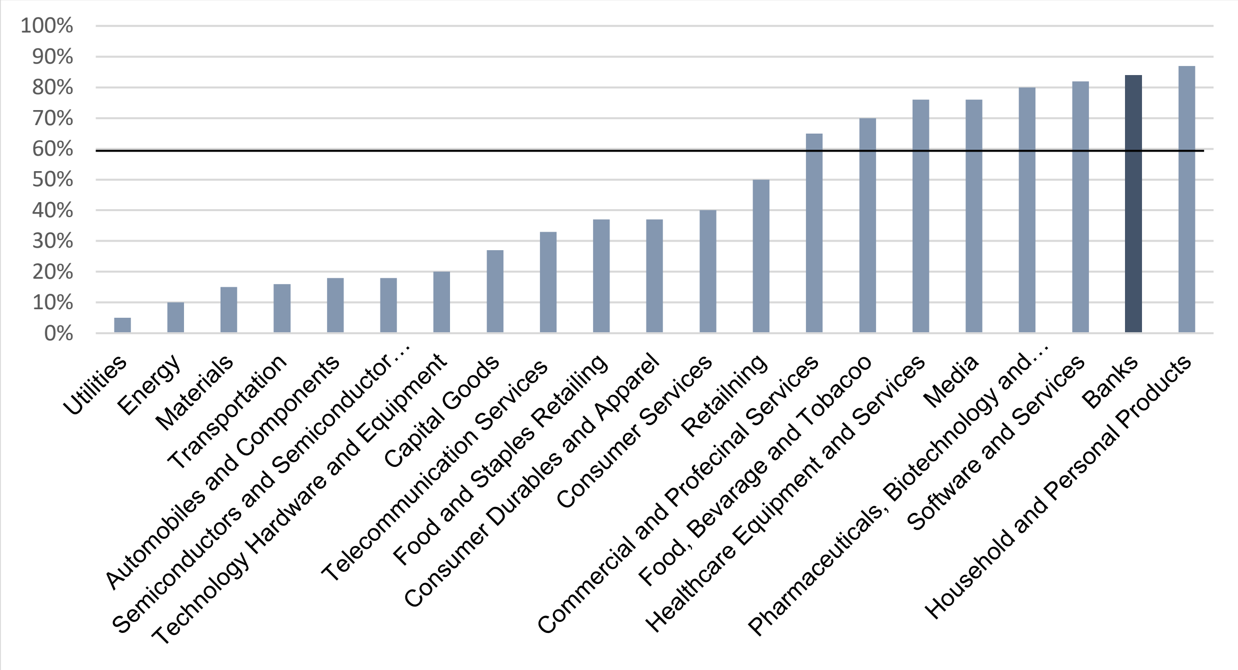


Figure 2.2 Brans value as a % of market capitalization by industry sector. Source: annual study by Ocean Tomo

The most dynamically and steadily developing from the point of view of intangible assets is the banking sector: both in Russia and around the world, the share of intangible assets in the banking sector is more than 70% of the company's value, which means that banks can be an object of investment in intangible assets. This particular feature predetermined the choice of this branch of the Russian economy as the basis for analyzing the value of the brands of the companies forming it. In addition, the choice was influenced by the fact that the bank is a monobrand company, which significantly clarifies the assessment, since there is no need to apply a subjective assessment and allocate cash flows generated by individual brands. Moreover, decrease number of commercial banks lead to tough competition among banks and make brand valuation extremely relevant for the Russian banking sector.

The total growth of bank brands proves the strengthening of the brand's role in the financial services market. The total value of the 500 most expensive banking brands by Brand Finance has increased by 1,56 times over last 10 years (Table 2.1).

Table 2.1 Dynamics of the total value of the 500 most expensive banking brands by BrandFinance, $ bn

Год	Total value of the 500 most expensive banking brands by Brand Finance, $ bn
2008	689,2
2009	480,5
2010	716,3

2011	855,0
2012	746,8
2013	860,7
2014	908,1
2015	953,0
2016	988,3
2017	1074,0

Source: BrandFinance: Banking annual reports

Besides the crises that depressed growth from 2008 to 2013, the average growth was stable, about 5-8% each year from 2014 to 2017 (Figure 2.3).

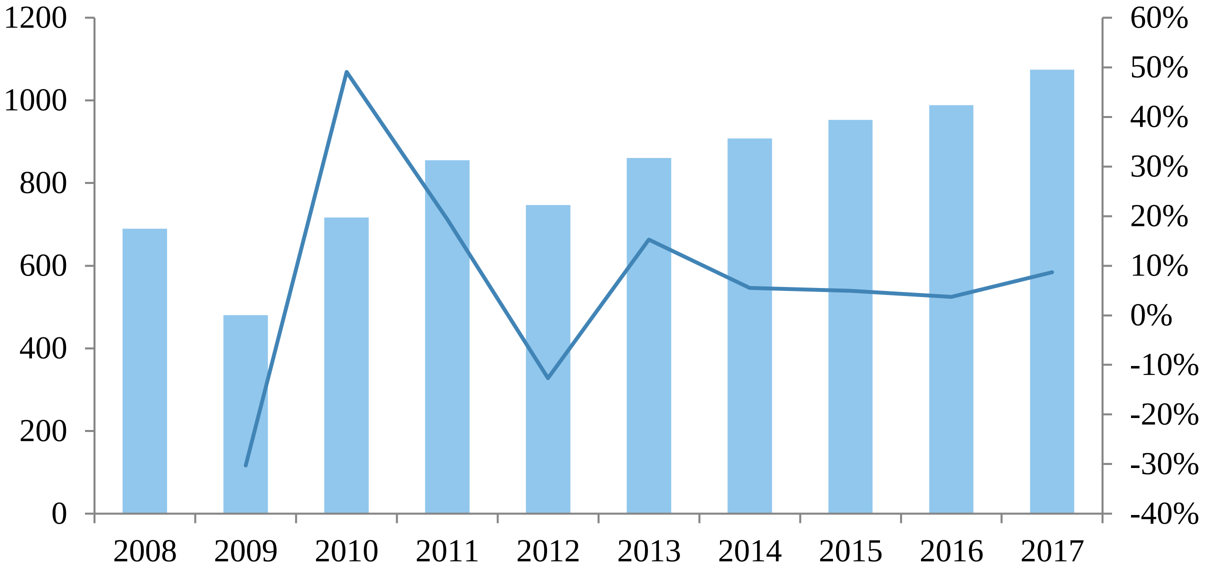


Figure 2.3 Dynamics of the total value of the 500 most expensive banking brands by BrandFinance, $ bn

Source: BrandFinance: Banking annual reports

2.2.Economic methods for brand valuation

All models in this group can be combined into the following subgroups:

• Income approach

• market approach

• Cost approach

Each of these three approaches corresponds to several methods of financial brand evaluation. There are more than 60 theoretical methods to find brand value all over the world, so only reasonable methods with high practical applicability and with a minimum number of subjective factors will be consider in this research.

Cost approach

Based on Cost approach, Haigh (2000) and Hirose (2002) calculated brand value by historical investment costs and current costs of replacement present brand for new one. The Cost approach is based on the conclusion that the investor will not pay more than he spent on creating of this brand. A limitation of this approach is that it does not include most of the value-creating factors, such as benefits from assets, the time period during which these benefits will be generated, and the risks associated with obtaining these benefits.

Market approach

According to Market approach, brand is compared to its analogies in the same industry and in the similar market (Smith, 1997; Ambler & Barwise, 1998; Anson, 2005). It is possible to compare companies with different brands based on indicators of financial or commodity markets, as well as branded and non-brand goods with similar characteristics.

Income approach

The most common approach of brand valuation is income approach. The core of the revenue approach is the assessment of future cash flows generated by the brand. The main drawbacks of this approach a high level of subjectivism and uncertainty about the forecasting cash flows.

Table 2.2 Methods according Income approach

Methods applied in different industries	Pros	Cons	Methods that use extensively in banking industry
Strength analysis by demand	-pay attention to specific brand metrics that drive demand	-lots of initial assumptions lead to ambiguous results	Average level of applicability
Price premium	-attractive at	-difficult to find similar product	

	theoretical level -lack of subjectivity	-lack of available information	of rare applicability
Gross margin comparison	-open sources of information -avoid product mix problem	-difficult to find similar product -using margins lead to undervalue or overvalue the brand	of rare applicability
Present value of excess cash flow	-does not connect with similar unbranded products	-an omission of revenue streams or expenses often lead to under- or overvaluation of brand -depending on internal information and avoiding marketing and legal aspects of brand	of rare applicability
Royalty relief	-less degree of subjectivity compared to other method -consider external factors -publicly available information	- lead to undervaluation of brand -royalty rates often include not only fee for using the brand	Applied

Source: created by author

Price premium method

This method is based on outlook of similar non-branded product which concedes in trade volume and price level to the branded product. Receiving extra price and volume, the company recognize the additional brand value.

This method includes four main steps:

1) Analyze the market to find similar good or service without brand and compute the differences in prices between branded and non-branded items.

2) Use this difference in prices to forecast volume of branded item. The volume depends on business plan, market growth, historical data of volume and market share of the company.

3) The next step is to deduct the expenses that were spent at brand development, including marketing expenses, manufacturing costs (for example, handmade premium or manufacturing labor) and prices for raw materials. It is important to separate expenses' present value to avoid double accounting in the price cash flows and in the volume cash flows.

4) Spot the discount rate based on infinite lifetime of the brand and compute the brand value using following formula:

$$Brand\ value = \sum_{t=1}^{n} \frac{((branded\ p_t - non\ branded\ p_t) * V_t - E) * (1 - r_{tax})}{(1 + discount\ rate)^t}$$
$$Brand\ value = PV(price\ premium)$$

Where:

n – branded lifetime limit

rtax- tax rate

pt – price of the branded or non-branded item

Vt – volume of products

E – costs to brand development

PV – present value.

Pros

The attractiveness of this method is in simplicity at theoretical level and objective judgments about the differences in prices.

Cons

From practical perspective, it can occur that there is no similar product at the market or that the difference in prices can be explain by non-branded factors, that are difficult to exclude. To add, differences in volume may make calculations of company's size more complicated.

Another disadvantage of this method is that it relays on hypotheses. In most cases there is no detailed information about expenses related to quality or brand so there is no opportunity to analyze deeply the companies' operations.

Gross margin comparison

The essence of this method is to compare the margins between branded and non-branded companies or between branded company and an average among competitors at the market. There are two types of margin: gross one and EBIT margin. The steps in this method are the same as in the previous one. The only difference is to apply the difference in the margin to the forecasted revenue streams of branded product. Brand value is computed as following:

$$Brand\ value = \sum_{t=1}^{n} \frac{((branded\ margin\%_t - non\ branded\ margin\%_t) * R_t) * (1 - r_{tax})}{(1 + discount\ rate)^t}$$

Pros

This method does not require detailed information about operations and the information is on open access to the public, so it is easier to apply it. Moreover, considering margins/ FCF allow to avoid product mix challenge.

Cons

This method with high probability undervalue the brand because EBIT margin and FCF include other types of expenses besides brand's ones. On the other hand, application of gross margin may lead to overvaluation due to fact that some expenses are excluded. Additionally, the appraiser may detect it difficult to find similar product without brand. The alternative idea to use margins of competitive companies also mix up the investigated brand to its competitors and kill the uniqueness of it. Another problem may be related to the sustainability of gross and EBIT margins calling the results into doubt.

Excess cash flow method

This method assumes DCF model to compute free cash flow that attributed to the brand. It is necessary to deduct from FCFF the estimated return of the assets that are not related to the brand. The remaining cash flows are the brand earning. The analysis of FCF depends on business plan, market growth, historical data of volume and market share of the company.

Pros

The concentration on the branded product give an opportunity to avoid relying on similar non-branded products.

Cons

The practically applicability is limited by companies that own only a single brand. Moreover, making an omission of revenue streams or expenses would lead to under- or overvaluation of the brand. Mistakes in assets identification may reverse the excess cash flows that would distort the result. Finally, dependency on internal information and ignoring marketing and legal components of the brand do not make this method reliable.

Royalty relief method

The applicability of Royalty relief method is wildly accepted. Consulting companies, such as Brand Finance and Whitwell, started to use the Royalty relief method in the 2000s. "Royalty relief" method is defined by future cash flows which are corrected by relevant royalty rate and discounted back to disclose net present value. "Royalty relief" method is based on the exemption from royalty and assumption that intellectual property (in this case, the brand) does not belong to its current owner. A person using someone else's exclusive rights (the licensee) is obliged to conduct regular payments under a license agreement (or a franchising contract) in favor of the owner of the rights (licensor). Since in fact the rights belong to the current owner of intellectual property, he is relieved of this obligation. These savings are identified as additional profit, which is the value of the brand.

There are five main steps:

1. Make a business plan for that includes information about market growth, historical data of volume and market share of the company. Strength of the brand is one of the key figures that need to be included during this step.
2. The most subjective thing in this method is royalty rate. Royalty rate shows the effect from unfitness and exclusivity of the brand, lifetime duration of the brand and its strength. To add, royalty rates represent the share of the firm in industry in specific country as well as operating margin of the company. Several ways to calculate royalty rate depends on the brand is licensed or not yet. In case of licensed brand, the royalty fees are calculated according to license agreement. If the company do not have a license agreement, we use a comparable technique to determine the royalty rate.
3. Calculate annual income streams from royalties for the whole period
4. Calculate optimal discount rate
5. Estimate long-term growth rate, useful life of the brand and annual payments of royalties (after taxes) on the valuation date

There are at least three ways to find royalty rate:

To begin with, determine "real" royalties for the same category of products in the same industry. The databases, for instance European Royalty Database, is convenient source of information, where all information about conditions for licensing agreements can be found. It should not be overlooked that the licensing agreement may include, besides the right to use the brand, transferring the right to use the brand, a monthly supply of raw materials and equipment, training of employees and providing placement. It is necessary to cheerfully investigate the details of the contract and to allocate a royalty rate, attributable solely to the brand. In addition, analysis of brand strength is conducted by computing Brand Strength Index. Each indicator is expertly assigned a score, after which the brand strength index for the assessed brand and its analogue are calculated.

Table 2.3 Criteria for calculating the brand strength index

Strength indicator of the brand	Maximum score
Market	10
Stability	15

Leadership	25
Internationality	25
Trends	10
Support	10
Protection	5

Source: Interbrand website

Comparison multiplier is determined by formula:

$M = \frac{\sum index_{brand,i}}{\sum index_{analog,i}}$, where

$index_{brand,i}$ – a score for the i-th indicator of the estimated brand

$index_{analog,i}$ – a score for the i-th index of the brand-analogue

Then the royalty rate for the brand-analogue is multiplied by comparison multiplier.

The second way is called “25% Rule”. Managers working in the field of licensing use the generally accepted "rule of thumb", which is called the "25% Rule"1. According to the rule, the licensor is due from 25% to 33% of the operating profit received by the licensee from the use of branded product. Despite the known criticism and simplicity of the method, the “25%” Rule is frequently used in licensing and business practice.

The theoretical value of the royalty rate is defined as the annual difference in the profitability of sales by operating profit. The comparison is made between the company owning the estimated brand and the average value for the industry.

The formula used is the following:

$ROS = \frac{EBIT}{R}$, where

EBIT – Earnings before Interests and Taxes

R – revenue

The difference in the operating margin is due to the positive influence of the brand not only on the company's revenues (at the expense of price premium and sales growth), but also on the structure of its operating expenses.

Pros

Due to all necessary information can be find in the public domain, this method is commonly used by authorities. This method reflects the fact that brand can be valuable and profitable itself and can exists without living business. Considering marketing and legal issues in this approach is also bonus according to ISO standards’ recommendations.

Information access predetermines the objectivity of this method:

[1] Helmut Knoppe (1967)

In case of licensed brand, the royalty fees are calculated with a high degree of accuracy. If the company do not have a license agreement, we use comparable assessments of agreements and judgments to determine the royalty rate. This technique is more subjective based on its nature.

Cons

If we identify brand as unique asset, it may be problematic to find appropriate licensing agreement of brand-analogue or to make comparison between two different brands.

To add, royalty rate may include not only fee for using the brand. In this case, it is difficult to determine which part of the rate is charged for the brand, and which for the remaining obligations under the contract (supply of raw materials, know-how, training of employees).

What is more, using this method may lead to undervaluation of brand. The royalty rate may be under its fair value because paying for license imply that company is expected to make more profit to cover expenses related to using the brand.

2.3.Composite methods for brand valuation

International consulting companies develop own methods to brand valuation and create ratings of most valuable world brands. The most popular methods are provided by Brand Finance, Interbrand, Millward Brown Optimor (MBO) and V-Ratio method provided by Russian company.

Cost estimation model of the brand Interbrand

Cost calculation of the brand on Interbrand's method, which is based on discounting method of cash flows and special multiplier, developed by the company, consist of four main stages:

- Financial forecasting
- Evaluation of the Brand Role
- Evaluation of the Brand Strength
- Calculation of Costs

At first stage the income, including intangible assets should be separated from one, created by physical capital. The amount of income, generated by intangible assets is calculated according to the formula:

$\mathrm{Earnings}_{\mathrm{IA}} = \mathrm{OPAT} - (\mathrm{CE} \cdot \mathrm{r})$, where

EarningIA – Earnings generated by intangible assets;

OPAT – Operating profit after tax;

CE – Capital Employed;

r – rate of return on invested capital

For calculating of Capital Employed Value the average industry indicator should be used. This indicator defines connection of Working Capital to Sales. By multiplying the Branch Ratio to sales volume, one can get profit which is expected in the case of selling of non-brand goods or service.

The Rate of Return of State Treasury Bonds or can be accepted as the Rate of Return for using Interbrand Methodology (or Weighted Average Cost of Capital (WACC)).

At second stage Brand Share, generating by intangible assets, must be estimated. For this Brand Influence Degree of Rey Demand Factors should also evaluated. The next formula can be used in according to Interbrand Methodology:

$\mathrm{BrStr} = 0{,}25\mathrm{Lead} + 0{,}15\mathrm{Stab} + 0{,}1\mathrm{Mark} + 0{,}25\mathrm{Int} + 0{,}1\mathrm{Tr} + 0{,}1\mathrm{Sup} + 0{,}05\mathrm{Pr}$, where

BrStr – Brand Strength

Lead – Leadership

Stab – Stability

Mark – Market

Int – Internationality

Tr – Trend

Sup – Support

Pr – Protection

At third stage the Value of Brand Multiplier which matches(meets) the value of Brand Strength must be found. S-curve line, characterizing the dependence is presented in figure beneath.

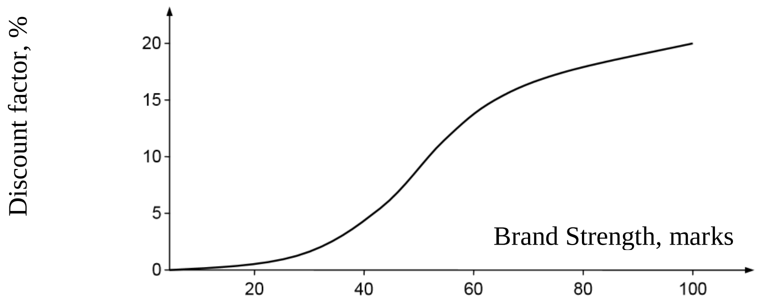


Figure 2.4 Brand Strength calculations. Source: Karimova, 2012.

The equation, characterizing the dependence of Brand Multiplier from the Brand Strength is a commercial secret of the compony Interbrand, however it is known that the Value of the Multiplier is from 0 to 0.2.

At the last stage the cost calculation is counted by the formula:

$\mathrm{BV} = \mathrm{CF}_{\mathrm{intA}} \cdot \mathrm{multiplier}$, where

$\mathrm{DCF}_{\mathrm{intA}}$ – earnings generated by intangible assets;

Multiplier – multiplier is calculated based on brand strength factors

Interbrand's Model has been used for cost calculation of brands since 1989 and till now. Nevertheless, it has some serious drawbacks, the main of which is subjective nature. Firstly, both calculation of the Brand Strength and Brand Multiplier are based on expert assesments, the sense of which can hardly be bested in reality. Moreover, this Model cannot be used for estimation of "Parent's" brands. For example, in Interbrand's Rating the company "Protect & Gamble", which is one the leaders at Internation Consumer Market, is not presented (Brand Finance, 2010).

Cost Estimation Model of the Brand "Brand Finance"

Cost calculation of a brand by "Brand Finance" Model, like Interbrand method, is an allocation of profit share, generated by the Brand (bonuses for brand) from all income, generated HMA, Cost calculation, based on this methodology, consists of the following stages (Cherepanov, 2012):

1) Segmentation and analysis of the market

2) Forecasting of EVA
3) Determination of BVA-indexes, allowing to allocate profit share, generated by the brand.
4) Determination of the discount rate (based on CAMP) model with using Brand-Beta
5) Cost calculation of the brand by discount cash flows method.

EVA (Economic value added) which is equivalent of the profit, generated by HMA is calculated by the formula:

EVA=NOPAT-WACC*IC, where

NOPAT – net operating profit after tax;

WACC – weighted average cost of the capital;

IC – invested capital

BVA – index, characterizing the contribution of brand into economic value added(EVA), is calculated by determination of value creation drivers and evaluation of brand contribution in each of them. Calculation of the discount rate is made by model CAMP:

$r = rrf + (rrf - rm) * \beta$, where (1.5)

rrf – risk free of return;

rm – Market profitability, identifying during market analysis;

β – Brand Beta

Brand-Beta estimation starts with Brand Strength estimation (takes value from O till 100), depending on the following criteria (Brand Finance, 2008):

Quality of Brand Management;

Brand Presence;

Familiarity;

Performance;

Emotional Connection;

Brand Preference;

Revenue growth;

Market Share;

Profitability;

Consensus Analyst Ratings.

Summary value of Brand-Beta ratio (which is in the range 0 –2) is calculated with the help of chart, showed in figure 2.5:

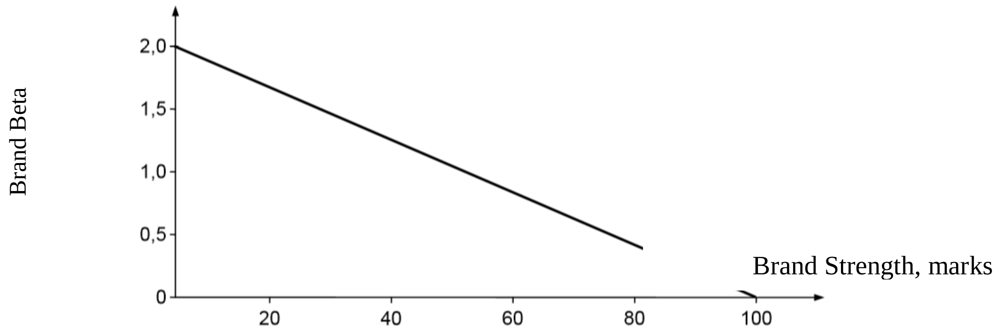


Figure 2.5 Curve line Brand-Beta Source (Kerimova, 2012). Source: Interbrand website

Advantages and disadvantages of the model are the same as Interbrand model. They are main connected with subjectivity of assessment of the Brand contribution in creation of Added Economic Value, Brand Strength and Brand-Beta, using for discount rate calculation.

Cost Estimation Model by Yoshikina Khirose

This model was developed in 2062 by the Committee assessment of the brands under management Yoshikini Khirose, professor of Waseda University in cooperation with Ministry of Economy, Trade and Industry of Japan. The purpose of the methodology is to receive objective assessment of brand based on data, which are disclosed on financial statements of companies (Beccacece, Borgonovo, Reggiani, 2006). According to this model, cost calculation of the brand is estimated with following formula:

V=f (PD, LD, ED, r), where:

PD – prestige driver;

LD – loyalty driver;

ED – expansion driver

r – Risk-Free Rate

The prestige driver characterizes the opportunity of the company, to sell its goods higher than its competitors constantly.

$$PD = \frac{1}{5}\sum_{i=-4}^{0}\left[\left(\frac{S_i}{C_i} - \frac{S_i^*}{C_i^*}\right) \times \frac{A_i}{OE_i}\right] \times C_0$$

Where:

S – sales

C – cost of sales

S* – sales of Benchmark company

C* – cost of sales of Benchmark company

A – advertising and promotion cost

OE – operating cost

The Loyalty driver characterizes the ability of the company to maintain sales volume on a high level during a long period thanks to the high loyalty of its customers.

$\mathrm{LD} = \frac{\mu_c - \sigma_c}{\mu_c}$, where

μ_c – average cost of sales the last 5 years

σ_c – standard deviation cost of the sales for the last 5 years

Selection of the Expansion driver is based on the assumption that well-known brand has more opportunities to enter the new geographical markets and new branches. Calculation of the Expansion driver is made with the following formula:

$$ED = \frac{1}{2}\left[\frac{1}{2}\sum_{i=-1}^{0}\left(\frac{SO_i - SO_{i-1}}{SO_{i-1}} + 1\right) + \frac{1}{2}\sum_{i=-1}^{0}\left(\frac{SX_i - SX_{i-1}}{SX_{i-1}} + 1\right)\right]$$

Where:

SO – overseas sales

SX – sales from non-main businesses

The main advantage of this model is an opportunity to access the value of the brand on the base of data, revealed in the company's financial reports. This fact makes the evaluation of the brand more objective in comparison with Interbrand and Future Brand's models. Nevertheless, the model has also a range of drawbacks. Firstly, the model does not consider an opportunity of the revenues increasing from the brand in the future. Secondly, due to use of the risk-free rate of return, this model does not consider operational and financial risks.

This method is often used to access cash flow, generated by the brand. If quantities current cost of the coming future Royalties, suggesting the brand does not belong to the compony but it is used by license agreement or franchising agreement. Since, such payments are not undertaken, the rights on intangible asset belong to company and created saving represent cost of the estimated brand.

Royalty rate is chosen through analysis of available data about license agreements of comparable brands. It must be close to those rates, which are used for brands with the same features and amount.

2.4.Chosen methodology of the research

Many analysts argue that the banking services market will change significantly: from product-oriented approach to client-oriented approach. Experts forecast that those banks will win, which provide individual approaches to each client. So, those banks that have actively invested in the development of their brand will win, because a strong brand allows both attracting new customers and retaining old ones. This situation leads to the fact that many banks, in order to geographically diversify the business and increase their customer base, seek an opportunity not just to buy bank, but brand, because it is impossible to create a recognizable brand in a short time.

Cost methods cannot be applied for brand valuation in banking industry in Russia

Since the brand is an intangible asset, the evaluation of the object using Cost-based approach is difficult. In order to be able to apply the cost approach for estimating the brand value, it is necessary to have detailed information on the historical costs incurred to develop the brand on the market for the entire period of its existence. Due to the limited amount of information published by Russian companies and the impossibility to unambiguously determine the costs incurred to develop the brand, the Cost approach for the purposes of assessing the fair value of the banks' brand cannot be applied. In addition, since the brand value cannot be equated to the costs invested in its creation, the method is not applied in practice.

Methods applied in different industries	Method based on historical cost	Advertising value method	Replacement-cost method	Reproduction-cost method
Methods applied in banking industry	Cost methods cannot be applied for brand valuation in banking industry in Russia			

Source: created by author

Market methods cannot be applied for brand valuation in banking industry in Russia

Due to the weak development of the banking sector of the Russian Federation, it is hard to find appropriate analogical companies on the Russian market. The consequence of the uniqueness of the company and the brand itself, as well as the lack of an accessible base for licensing agreements, is the refusal to use the methods of the Market approach.

Methods applied in different industries	Comparison in price, in sales and in profitability
Methods applied in banking industry	Market methods cannot be applied for brand valuation in banking industry in Russia

Source: created by author

Justification for the use of the royalty-free method (Income approach)

The brand value obtained with royalty-free method takes into account the specific features of the industry and the real licensing practices. The use of relevant information regarding royalty rates for transactions with similar companies, a minimum amount of input data, consideration of business and brand prospects - all these factors reduce the subjectivity and increase the reliability of the assessment. Moreover, it is favored by tax authorities and the courts because it calculates brand values by reference to documented, third-party transactions.

Table 2.4 Summary of methods of brand evaluation methods (Income approach)

Methods applied in different industries	Pros	Cons	Complexity of application	Degree of subjectivity	Time period	Reliability
Strength analysis by demand	-pay attention to specific brand metrics that drive demand	-lots of initial assumptions lead to ambiguous results	High	Low	Current	Low
Price premium	- attractive at theoretical level -lack of subjectivity	- difficult to find similar product -lack of available information	Average/ High	Average	Current	Average
Gross margin comparison	-open sources of information -avoid product mix problem	-difficult to find similar product -using margins lead to undervalue or overvalue the brand	High	Low	Current	Low
Present value of excess cash flow	-does not connect with similar unbranded products	-an omission of revenue streams or expenses often lead to under- or overvaluation of brand -depending on	Average	Average	Future	Average

		internal information and avoiding marketing and legal aspects of brand				
Royalty relief	-less degree of subjectivity compared to other method -consider external factors - publicly available information	- lead to undervaluation of brand -royalty rates often include not only fee for using the brand	Average	Low	Current	High

Source: created by author

2.5.Brand valuation approach by using Royalty Relief method

Royalty Relief method is based on introductory data. This method involves calculating the current value of money saved by patent ownership and the lack of the need to pay royalties to a third party for a patent license. This can also be considered as the present value of future savings.

To use the method of exemption from royalties, it is necessary to determine five inputs. The key ones are:

- the remaining term of the patent;
- forecasted revenue;
- royalty rate;
- tax rate;
- discount rate.

To start with, remaining duration of patent protection. This introductory determines the period during which it will be possible to obtain the forecasted benefit from ownership of the patent. the remaining term reflects not only the remaining term of the patent protection, but also the remaining term of the underlying invention. Forecasting beyond the remaining term of the invention takes into account the value that does not exist. The patent has a validity of twenty years, but in some industries, new technological inventions may become obsolete much faster than the patent expires. Thus, the forecasted period should reflect not only the remaining term of the patent, but also take into account the remaining period of the life cycle of the technology.

Secondly, it is important to forecast revenue. This introductory is an important component of future savings obtained by owning a patent. It should be based on projected revenues expected from products or services that commercialize the patented invention. Forecast revenue should be limited only to products or services that benefit from patent protection. They should not be based solely on the owner's income and may include other uses of the technology being valued, which can reasonably be assumed. The trend towards licensing continues to develop. In many industries, corporations transfer the rights to their inventions by issuing licenses to others, including direct competitors, using this as a new source of income. Usually the cost of a patent for the owner depends to the greatest extent on the protection that it receives when it is used exclusively in its own enterprise. However, it may be necessary to assume that exclusive use of patent rights is the best and, perhaps, the only way to use the patent. Otherwise, in order to understand the full economic value of a patent, its application should be considered outside the framework provided by the owner.

The third component is Royalty Rate. It is calculated as a rate that the owner would have to pay to obtain the rights to use the patented invention, if he did not have them. More often than not, royalties for a particular patented invention under evaluation do not actually exist, because licensing agreements for the right to use the patent in question were not previously concluded. In this case, a conditional (reference) royalty rate should be calculated. The contingent rate is often calculated on the basis of market data, where the royalty rate is reported, for which similar patent rights are licensed between independent third parties. Another way to use the conditional royalty rate in the method of exemption from royalty can be a calculation using the profit distribution using the rule of the "thumb" (Profit Split Rule of Thumb) or calculating the excess profit (Profit Differential Calculation). In this research method of well-known consulting company Markables was used.

A peer group analysis from Markables covers 34 brands of retail and commercial banks from 18 countries. Based on both royalty rates and brand value as percentage of enterprise value, brands are of minor importance in the banking sector. The core deposit intangible (CDI) is the most important intangible asset. The analysis suggests a median royalty rate for banking brands of 1.0% and a share of enterprise value of 2.2%. The multiples observed are much lower than what the various league tables on the most valuable global brands (as released by Brand Finance, Millward Brown, and Interbrand) suggest for brands such as Wells Fargo, HSBC, Royal Bank of Canada, Toronto Dominion Bank, and others. It is important to make a clear distinction between the customer intangibles (i.e., the core deposit intangible and the customer relations) and the brand name. The revenue base must be clearly defined. The revenue base for banks is defined as "net interest income plus noninterest income".

Table 2.5 Trademark values – Peer group analysis

№ of observations: 34 Time period: 2005-2013 Countries: 18 (including Russian Federation)	**Royalty Rate**	**Enterprise value**
	% of Revenue (net interest income non-interest income)	Revenue multiple (net interest income non-interest income)
I quartile (25%)	0,6%	1,95x
Median	1,0%	3,31x
III quartile (75%)	1,6%	4,12x
Mean	1,3%	3,31x

Trademark life:	Indefinite life: 53% Definite life: 47% with average useful life of 11 years	

Source: Trademark valuation of global banking brands // URL: https://www.bvresources.com/blogs/intellectual-property-news/2015/07/01/trademark-valuation-of-global-banking-brands

The forth component is tax rate. This introductory serve to transfer the accumulation of royalty to the cash flow after taxation, which is converted, in turn, into the value of the patent. In Russian Federation tax rate is equal to 20%.

The final component is discount rate. This introductory reflects the risk associated with obtaining projected income. This rate should reflect more than the weighted average cost of capital (WACC) using the patented invention. When you consider WACC firms, you should remember that the firm consists of a portfolio of assets that includes net working capital, fixed assets, intangible assets, and intellectual property. Each of these types of assets carries different levels of risk. Some, for example, money, receivables or fixed assets, have a very definite liquidation value. Others do not have a liquidation value, for example, an intangible asset in the form of a collective of skilled labor. WACC firm is calculated on the basis of the entire set of assets that make up the firm. When evaluating an individual element of a firm, such as a patent, the required discount rate does not always correspond to the WACC of the entire firm. Research strategy and hypothesis formulation.

Summary of Chapter 2

Different industries were analyzed. Banking industry was chosen due to several reasons:

- both in Russia and around the world, the share of intangible assets in the banking sector is more than 70% of the company's value;
- banks often have monobrand
- decrease in number of commercial banks lead to tough competition among banks and make brand valuation extremely relevant for the Russian banking sector

Then three approaches were investigated at Chapter 2. Since the brand is an intangible asset, the evaluation of the object using Cost-based approach is difficult. In order to be able to apply the cost approach for estimating the brand value, it is necessary to have detailed information on the historical costs incurred to develop the brand on the market for the entire period of its existence. Due to the limited amount of information published by Russian companies and the impossibility to unambiguously determine the costs incurred to develop the brand, the Cost approach for the purposes of assessing the fair value of the banks' brand cannot be applied. In addition, since the brand value cannot be equated to the costs invested in its creation, the method is not applied in practice.

Due to the weak development of the banking sector of the Russian Federation, it is hard to find appropriate analogical companies on the Russian market. The consequence of the uniqueness of the company and the brand itself, as well as the lack of an accessible base for licensing agreements, is the refusal to use the methods of the Market approach.

The brand value obtained with royalty-free method takes into account the specific features of the industry and the real licensing practices. The use of relevant information regarding royalty rates for transactions with similar companies, a minimum amount of input data, consideration of business and brand prospects - all these factors reduce the subjectivity and increase the reliability of the assessment. Moreover, it is favored by tax authorities and the courts because it calculates brand values by reference to documented, third-party transactions.

As a result, Royalty Relief method was chosen.

PART 3. EMPIRICAL STUDY

3.1. Explanation of relationship between revenue and brand value in accordance with Royalty Relief Method

As reported by the MARKABLES group in the analytical studies of industry groups, the high correlation exists between the royalty rate and the multiplier Enterprise value / Revenue (EV / Revenue). The existence of a strong brand in a bank leads to a sharp gap between the value of the bank estimated by the market, and financial indicator, such as revenue. Consequently, the share, withdrawn by the licensor under the license agreement from the revenue, should be higher (because of the higher royalty rate), as payment for the use of a competitive advantage - a strong brand.

Figure 3.1 The relationship between revenue and brand value in accordance with Royalty Relief Method. Source: Trademark valuation of global banking brands // URL: https://www.bvresources.com/blogs/intellectual-property-news/2015/07/01/trademark-valuation-of-global-banking-brands

Taking into account all mentioned above, we may infer that the relationship between brand value and banks' revenue shows high correlation between these two indicators in accordance with Royalty Relief Method. Revenue as intermediate value is used in the next sections.

3.1.Hypothesis development

Financial ratios are usually used to assess the effectiveness of banks. It is often necessary to take into account a number of criteria, such as profit, liquidity, asset quality, attitude to risk and management strategies. In the early 1970s, federal regulators in the United States developed the CAMEL rating system to help structure the banking expertise process. In 1979, the Unified Rating System for Financial Institutions was developed, provided the goverment with a framework for assessing the financial condition and performance of individual banks (Siems and Barr, 1998). The use of CAMEL factors in assessing the financial condition of the bank has become popular among government authorities. Piyu (1992) notes: "At present, financial ratios are often used to assess the overall financial soundness of a bank and the quality of its management. For example, bank regulators use financial ratios to assess the income and profit metrix of the bank as part of the CAMELS system. "The evaluation factors are as follows:

C → Capital adequacy

A → Asset quality

M → Management quality

E → Earnings ability

L → Liquidity

S→ Sensitivity to risk

In table 3.1, some important indicators those are employed in CAMELS model studies are shown. As literature review demonstrated, there are 6 categories in this model that in each category some practical and relevant elements are used. For our research cost and profitability indicators were excluded due to fact that the Royalty rate depends on revenue which is defined as "net interest income plus noninterest income".

Table 3.1 Summary of important indicators in prior studies

Year	2011	2012	2013	2014	2015
Title of study/ Authors	A performance evaluation of the Turkish Banking sector after the global crisis via CAMELS Ratios/ Dincer, H., Gencer, G., Orhan, N., & Sahinbas, K.	Applicability of CAMELS Rating for Supervisory Regulation of the Indian Banking / Soni, R.	Camels and performance evaluation of banks in Malaysia: conventional versus Islamic/ Rozzani, N., & Rahman, R. A.	A Working Paper on the Impact of Gender of Leader on the Financial Performance of the Bank: A Case of ICICI Bank (india)/ Chandani, A., Mehta, M., & Chandrasekaran, K. B.	Bank Performance with CAMELS Ratios towards earnings management practices In State Banks and Private Banks/ Salhuteru, F., Wattimena,F.
Capital	Equity to (Loan +	CAR/ Debt to capital/ Debt to	Earning to assets	CAR/ proportion of debt to capital/	CAR/ Profit

	Market + Principle Amount Subject to Operational Risk) / Equity to Total Assets/ Equity to (Deposit + Non-deposit Sources)	assets/ Investment securities to assets		Debt to assets/ bond investments to assets	before tax to assets/ ROA/ Net profit margin/ Loan to Deposit
Asset quality	Financial Assets to Assets/ Loans and Receivables to Assets/ Permanent Assets to Assets	Non-current receivables to total receivables/Noncurrent debt to assets/ Investments to assets/percent changes in non-current receivables	Non-performing loan	Noncurrent receivables gross to debt/ Noncurrent debt to debt/Loans to assets/Noncurrent net debt to loans	
Management quality	Interest expenses to total expenses/ interest incomes to total incomes/ total incomes to total expenses	Total debt to total deposits/Per capita profit per employee/ROE/ Earning per employee	Staff costs to assets	Debt to deposits/ Returns per employee	
Earnings	Net Profit to Total Assets/ Net Profit to Equity	Operating profit to average working capital/ margin to total assets/Net profit to assets/Interest income to total income/Non-interest income to total income	ROA/ROE	Operating profit to average capital turnover rate/ margin or net profit to assets/ interest income to income	
Liquidity	Liquid assets to Assets/ liquid assets to short term liabilities/ liquid assets to deposit and non-deposit sources	Liquid assets to Total deposits/ Securities to assets	Net loans to (deposits and short-term financing)/ Short-term liquid assets to deposits and financing	Securities to assets/Assets to deposits	
Risks	Total Assets to Sector Assets/	-	Credit Risks	-	

	(Loans and Receivables) to (Sector Loans and Receivables) /Deposits to Sector Deposits				

Source: Camels' analysis in banking industry (PDF Download Available). Available from: https://www.researchgate.net/publication/283854804_CAMELS'_ANALYSIS_IN_BANKING_INDUSTRY [accessed May 9, 2018].

Moreover, some metrics for banks performance were used for analysis based on previous studies:

Table 3.2 Main profit and income metrics

Metric	Definition	Formula	Economic intuition
NIM (Net Interest Margin)	The difference between a bank's interest income and the amount of interest paid out relative to its interest-bearing assets	$\frac{Net\ interest\ income^1}{Average\ Earning\ Assets}$	NIM examines bank profitability by comparing the income, expenses, and debt of a bank's investments
ROE (Return on Equity)	The ratio of the net income of a bank to its capital	$\frac{Net\ income}{Capital}$	ROE shows how much profit a bank generates with the money shareholders have invested
ROA (Return on Assets)	The ratio of the net income of a bank to its total assets	$\frac{Net\ income}{Total\ assets}$	ROA shows how much profit a bank generates using all of the resources at its disposal
CIR or C/I (Cost-to-Income Ratio)	The ratio of a bank's operating expenses to its operating income	$\frac{OPEX}{Operating\ income}$	CIR is a measure of the efficiency with which a bank can minimize costs while increasing revenues
Market share	The volume of a bank's product in a specific segment expressed as a percentage of the total amount of that product in this segment of the market (e.g. loans / deposits)	$\frac{Size\ of\ bank\ portfolio}{Market\ volume}$	The market share reflects a bank's market power in a certain segment relative to its competitors
NPL90+ (Non-Performing Loans)	Loans on which interest payments are past due by 90 or more days. Often shown as a percentage of gross loans	$\frac{Loans \geq 90\ days\ past\ due}{Gross\ loans}$	NPL90+ reflects the quality of the bank portfolio, diverging information about the share of "bad" loans
LLP (Loan-Loss Provisions)	The portion of loan principal not expected to be paid back	Calculated based on historical data, in particular looking at default rates depending on borrower type	LLP represent a bank's best estimate of future loan losses
CoR (Cost of Risk)	Increase in provisions for loan losses plus write-offs expressed as a percentage of operating income[1]	$\frac{\Delta LLP + writeoffs}{Operating\ income^1}$	CoR shows how much bank income[1] is depleted by the realization of its risks, mainly credit risk
RWA (Risk-weighted assets)	A bank's assets aggregated taking into account the range of risk factors affecting the value of these assets	$\sum_{k=1}^{N} w_k * E_k$, (Note 2)	RWA are used by regulators to determine a bank's minimum capital needs
CAR (Capital adequacy ratio) – N1.0 in Russia	The ratio of a bank's capital to its risk	$\frac{Tier\ 1\ capital + Tier\ 2\ capital}{RWA}$	CAR is used by supervisors to assess whether a bank has sufficient capital to absorb losses in an adverse scenario

Source: Central Bank of Russia, FinAM

For our research cost and profitability indicators were excluded due to fact that the Royalty rate depends on Revenue which is defined as "net interest income plus noninterest income".

One of the factors that is going to be discussed in the research is Asset quality. Asset quality is calculated as ratio of Loan Loss Reserve to Total loans. A distinguishing characteristic of this ratio is that higher fraction expects poor asset quality. Kosmidou (2011) claimed that the part of the total portfolio is provided by loss reserve funds. Loan loss reserves over Total loans is used to measure the quality of assets of commercial banks. Due to fact that insufficient asset quality often induces bank failures, the measure shows of bad loans, or non-performing loans, is inclined to reduce bank's revenue level. The lower non-performing amount, consequently, the lower the coefficient of loan loss reserves to total loan, means the higher quality of asset (Ismail et al., 2009). According to this point of perspective, Miller and Noulas (1997) stated that the larger amount of high-risk loans at commercial banks, the greater reserves need to be, and the more bad loans are accumulated, that lead to decrease in banks revenue. Consequently, the better is asset quality the higher will be bank's revenue and the higher will be brand value:

H1: Asset quality has a positive relationship with brand value

There are several reasons to suppose that bank's revenue is expected to grow accordingly with growth of loans portfolio to other more secure assets (for example, government securities). Some of banking literature proposes to take into consideration the relations between risk and return, or risk-return trade-off in other worlds (Chiorazzo et al. ,2012). These studies report that a large loans portfolio tends to increase bank revenue with a higher ratio of total loans to total assets if banks adapt markup pricing (increase in interest rates on risky loans). Sufian (2009) stated that the greater relative percentage of loans in the assets, the higher the degree of protection of deposit's money and more revenue and the higher will be brand value:

H2: The relative percentage of loans in the assets has a positive relationship with brand value

One of the most significant indicators of the banks' performance and the stable situation in the banking industry is liquidity level. Transparency and reliability of the financial reporting and accounting call attention of official regulatory to the high importance of legitimate liquidity ratios. Due to facts that the powerful source of revenue of banks is loans and that the fundamental source of funds of financial institutions is deposits, it is vital to build a shield and to protect banks if unpredictable conditions happens. In cases of crisis in the economy and ailing economy at whole the probability of unpaid loans and risks of default are extremely high (Sufian, 2009 a; 2009 b). In fact, banks undoubtedly differ from non-financial companies, and it is essential to show the relationship between liquidity of banks and revenue streams that they gain:

H3: Sustainable liquidity level has a negative relationship with brand value

Most of banking literature analyzing the balance sheet aids in drawing conclusions regarding a bank's ability to do business. According to balance sheet the loan portfolio (legal entities, individuals, SME) is the main source of interest income for banks with a traditional model. However, nowadays new tendency in banking industry appeared. Banks tend to provide income from fees and alternative (other the "balance sheet") sources. Abrupt drop in interest margins became a trigger to banks in exploring alternative revenue sources. Banks started to diversify strategies and risks by improving trading and non-financial services. It is assumed that revenue consists from two main components: net interest income (NET) and non-interest income (NON). Non-interest income represents sum of commission fees, account service charges per month, trading fees (net profit/loss), deposit fees, transaction fees and so on. Net interest income can be found be distracting total interest expenses from interest revenue. To measure income diversification, revenue is calculated as sum of net interest income and non-interest income. income diversification means that bank generate revenue from different sources of net operating income including NET and NON units. Experts in banking industry state that bank is considered as fully diversified in case if net interest income is equal to non-interest income. It is stated that fully diversified banks generate more revenue and have the higher brand value:

H4: Income diversification has a positive relationship with brand value

Two hypotheses about the relationship between brand value and loan portfolio were developed. Loans' proportion is described as ratio commercial & industrial or consumer loans to total loans. Marquis (2003) provides studies to prove that the predominance of commercial & industrial loans in loan portfolio will bring more revenue and, as a result, increase brand value. Whereas, Milton H. (2004) indicated that consumer-oriented strategy is related to high revenues and high brand values.

H5: Predominance of commercial & industrial loans in loan portfolio has a positive relationship with brand value

H6: Predominance of consumer loans in loan portfolio has a positive relationship with brand value

3.2.Methodology

Table 3.3 Description of variables used in analysis

Variables used in the analysis	
Dependent variable	
Revenue	Using Revenue as dependent variable is determined by Royalty Relief Method.
Bank specific (independent)variables	
LRGL (Loan Loss Reserve over Gross loan)	Proxy of Asset quality or Credit risk. Asset quality ratio is ratio between Loan Loss Reserve and Gross loans. Higher ratio means poor asset quality. Sufian (2009) reported that RGL is forecasted to have negative coefficient. As reported by Kosmidou in 2011, loan loss reserve over gross loan demonstrates the proportion of the total portfolio which is provided for, but not charged off. This ratio is a tool to measure asset quality of commercial banks. The coefficient is predicted to have negative sign due to fact that bad loans, or non-performing loans in other words, is inclined to cut bank's revenue. The higher asset quality, the lower non-performing loans or ratio of loan loss reserve to gross loan (Ismail et al., 2009). According to this point of perspective, Miller and Noulas (1997) stated that the more high-risk loans at commercial banks, the larger the accumulation of bad loans, as a result bank is less effective. Consequently, in case of lower coefficient the better will be asset quality that can rise the bank's revenue.
LA (Total Loans over total assets)	Proxy of Asset structure. Most of the banking literature agrees that a bank's revenue is expected to increase as its portfolio of loans grows in relation to other more secure assets (such as government securities), taking into account the known relationship between risk and return (the so-called risk-return trade-off). Holding a large portfolio of loans, bank revenue should increase with a higher ratio of loans to assets as long as interest rates on loans are liberalized and the bank applies markup pricing (García-Herrero et al., 2016). It is expected that LA variable has a positive sign (Abreu and Mendes, 2001; Carvallo and Kasman, 2005; Athanasoglou et al., 2008; Sufian, 2009). The coefficient represents

	positive relationship between Asset structure and revenue, where the greater relative percentage of loans in the assets, the higher the degree of protection of deposit's money and the higher revenue.
LD (Total loan over deposits)	Proxy of liquidity. It is supposed that bank loans are fundamental source of revenue of financial institutions and are presumed to establish positive relationships with bank performance. Although, the coefficient may also have negative sign in case of the anticipated change in the economy. While a strong economy provides confidence that only limited number of loans will remain unpaid and default. Otherwise, a weak economy depressingly affect the financial institutions due to borrowers will probably default on their loans. So, building shield and protect themselves if unfavorable conditions happens is the preferred strategy for commercial bank (Sufian, 2009 a; 2009 b).
NII 1-(HHI of net interest income, foreign exchange income, commissions and fees, and other income)	Proxy of diversification of income. The latest trend in banking industry is to generate income from other the "balance sheet" sources and fee income. In 2010 Albertazzi and Gambacorta asserted that banks started to investigate alternative revenue sources because of steep decrease in interest margins. This drop led to diversification strategies into trading, increasing number of additional services and other non-financial activities. Sufian and Chong (2008) discovered a positive interrelation between ratio of non-interest income over total assets and revenue. For the measurement of income diversification levels, firstly we assume that there are two main components of a bank's net operating income. These are net interest income (NET) and non-interest income (NON). NET (net interest income) variable is calculated as total interest revenues minus total interest expenses, while NON (non-interest income) variable is calculated as the sum of net commission fees, net trading profit/loss and other non-interest income. The sum of the NET and NON variables is net operating income (net interest income plus noninterest income) of a bank. For income diversification, a bank must diversify its sources of net operating income among net interest income and non-interest income components. When the values of net interest income and non-interest income are equal to each other in a bank, this bank is accepted as fully diversified. In order to measure income

	diversification level of each bank, we calculate widely used Herfindahl Hirschman Index (HHI) for all banks. Index ranges from 1 to 0. Where 1 indicates complete diversification, 0 indicates complete focus.
IL (Proportion of commercial & industrial loans in loan portfolio)	IL is a factor that shows the predominance of commercial & industrial loans in loan portfolio. Loans' proportion is described as ratio commercial & industrial loans to total loans. As expected, this coefficient is to be in positive sign which indicates that the banking sector has been relatively more revenue efficient if they provide loans to commercial & industrial enterprises.
CL (Proportion of consumer loans in loan portfolio)	CL is a factor that shows the predominance of consumer loans in loan portfolio. Loans' proportion is described as ratio consumer loans to total loans. As expected, this coefficient is to be in positive sign which indicates that the banking sector has been relatively more revenue efficient if they provide loans to consumers.

Source: Created by the author

By using the revenue as the dependent variable, we estimate the following regression model:

$LNR_{it} = \beta 0+\beta 1* LRGL_{it} + \beta 2*LA_{it} + \beta 3*LD_{it} + \beta 4*NII_{it} + \beta 5*DI_{it} + \beta 6*DC_{it} + u_{it}$

where,

LNR is the natural logarithm of revenue of the i-th bank in the period t; LRGL is the loan loss reserve to gross loan (asset quality); LA is Total loan over deposits; LD is total loan over deposits (liquidity); NII is Income diversification level; DI is proportion of commercial & industrial loans in loan portfolio; DC is proportion of consumer loans in loan portfolio; I is the number of the bank; T is Time period.

The choice of this model is based on the existing studies on similar topics, in which linear regression model was used in order to assess the influence of financial characteristics on banks' revenue.

3.3.Sample description

Sample was built from Russian banks. The concentration of assets in the Russian banking sector increased in 2017. At the end of January 2017, the 20 largest banks accounted for 78,1% of total banking assets compared to 75.7% in the previous year. Moreover, the 50 largest banks accounted for 88,7% of total banking assets compared to 87.0% in the previous year. State banks maintained their leading position.

Table 3.4 Concentration of assets in the Russian banking sector (operating financial institution)

Distribution of credit institutions ranked by value of assets (descending)	1.01.15		1.01.16		1.01.17		1.02.17		1.03.17	
	MLN RUB	% of the total	MLN RUB	% of the total	MLN RUB	% of the total	MLN RUB	% of the total	MLN RUB	% of the total
First 5	41 593 833	53,6	44 883 973	54,1	44 232 891	55,3	44 586 779	55,5	43 977 969	55,4
From 5 to 20	16 674 162	21,5	17 925 387	21,6	18 257 646	22,8	18 165 082	22,6	17 856 572	22,5
From 21 to 50	8 259 743	10,6	9 391 355	11,3	8 444 718	10,6	8 637 109	10,8	8 535 405	10,8
From 51 to 200	8 406 233	10,8	8 484 303	10,2	7 520 065	9,4	7 400 374	9,2	7 428 025	9,4
From 201 to 500	2 309 299	3,0	2 060 315	2,5	1 528 737	1,9	1 496 543	1,9	1 470 398	1,9
From 501	409 725	0,5	254 375	0,3	79 197	0,1	75 015	0,1	68 875	0,1
Total	**77 652 994**	**100**	**82 999 708**	**100**	**80 063 255**	**100**	**80 360 902**	**100**	**79 337 246**	**100**

Source: Banking sector review (№174 April 2017)

The period analyzed accounts for six years from 2010 to 2016. This time period was selected in order to analyze the most recent data available.

The original panel of date consisted of top 30 banks. Nevertheless, those companies with not enough information disclosed in open sources and databases were removed from research sample. Central Counterparty National Clearing Centre, Joint Stock Company «Russian regional development bank», Russian Agricultural Bank and banks that are under of procedure of rescue (bank FK Otkrytiye, Binbank and Promsvyazbank) were also excluded. There were 22 banks left that are fully corresponding to the requirements stated above (Appendix 1).

The selection was drawn from the SPARK database. It provides extensive information about banks including data on bank's financial indicators and results. Banks' official websites (including website of Russian Central bank and statistical data) were also used as a source for gathering data that were necessary for conducting a research. Using those sources of information, banks' annual reports were downloaded and in cases when there was not enough data provided in annual reports, SPARK database was used for data collection.

Final version of the research sample consists of 22 banks (sector data).

Additional analysis is based on division these banks by the size: large banks and small and medium banks.

3.4. Main findings

To test six hypotheses the multiple linear regression and t-statistic results were received. To begin with, the model is significant: according to F-test, the regression has Prob > F of 0, so the model is statistically significant since probability of failure was less than 5%.

While analyzing results of running a regression with bank's revenue as a dependent variable, it can be claimed that Assets quality, Assets structure and Liquidity level not only related to the revenue of commercial banks, but also effect on revenue significantly (Table 3.5). Moreover, predominance of consumer loans in loan portfolio has a positive relationship with brand value (Table 3.5). According to relationship between revenue and brand value described above, it means that Assets quality, Assets structure, Liquidity level and predominance of consumer loans in loan portfolio influence on brand value significantly.

It can be concluded that the four of six-hypothesis created above are supported with results from statistics.

Table 3.5 Results of regression analysis

Dependent Variable / **Independent Variables**	**Revenue (Sector)**	**Revenue (Large banks)**	**Revenue (Small &Medium banks)**
LRGL	-4.611**	-6.347**	-3.619**
LA	1.818**	1.211**	1.551**
LD	-1.046**	-1.983**	-0.752**
NII	0.726	0.000**	1.431
DI	1.463	1.189	2.267
DC	0.675**	0.575**	0.865**
R2	*0.4498*	*0.2783*	*0.2697*
Adjusted R2	*0.4184*	*0.1545*	*0.2399*
N	*154*	*42*	*112*

Source: created by the author

*** $p < 0.10$, ** $p < 0.05$, * $p < 0.01$

The Relationship between Brand value and Assets Quality

Figure 3.5 presents the relationship between assets quality and revenue. It is clear from this figure that there is a negative and strong relationship between poor assets quality and revenue as the plots are clustered strongly around the trend and the coefficient of correlation is -4.611. This means banks which fail to monitor their credit loans tend to obtain less proceeds, and as a result, tent to have lower brand value, than those which focus on assets quality. Moreover, poor asset quality leads to lower revenue to all banks.

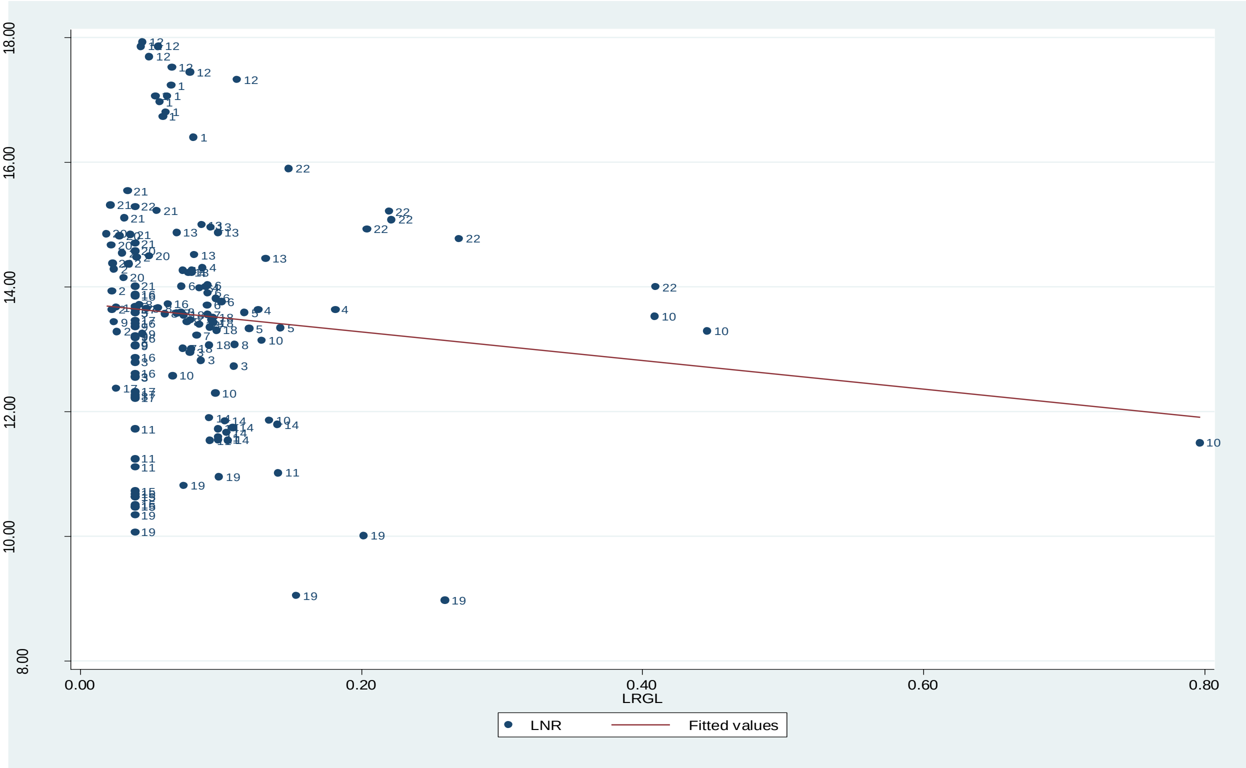


Figure 3.2 The Relationship Analysis, Revenue and Asset Quality. Source: authors' calculations

The Relationship between Brand value and Asset structure

The results presented in figure 3.3 indicate that the Loan Portfolio or Asset structure is positively related to revenue. The coefficient of correlations is 1.818 which indicates that the relationship may not be very strong. These results provide reasonable evidence to the consistent view that, the higher relative percentage of loans in the assets, the higher the revenue and the higher brand value. Generally, a bank that depends more on leverage will experience more volatile earnings and this also affects the credit creation and liquidity function of the bank. To add, increasing relative number of loans leads to higher revenue to all banks.

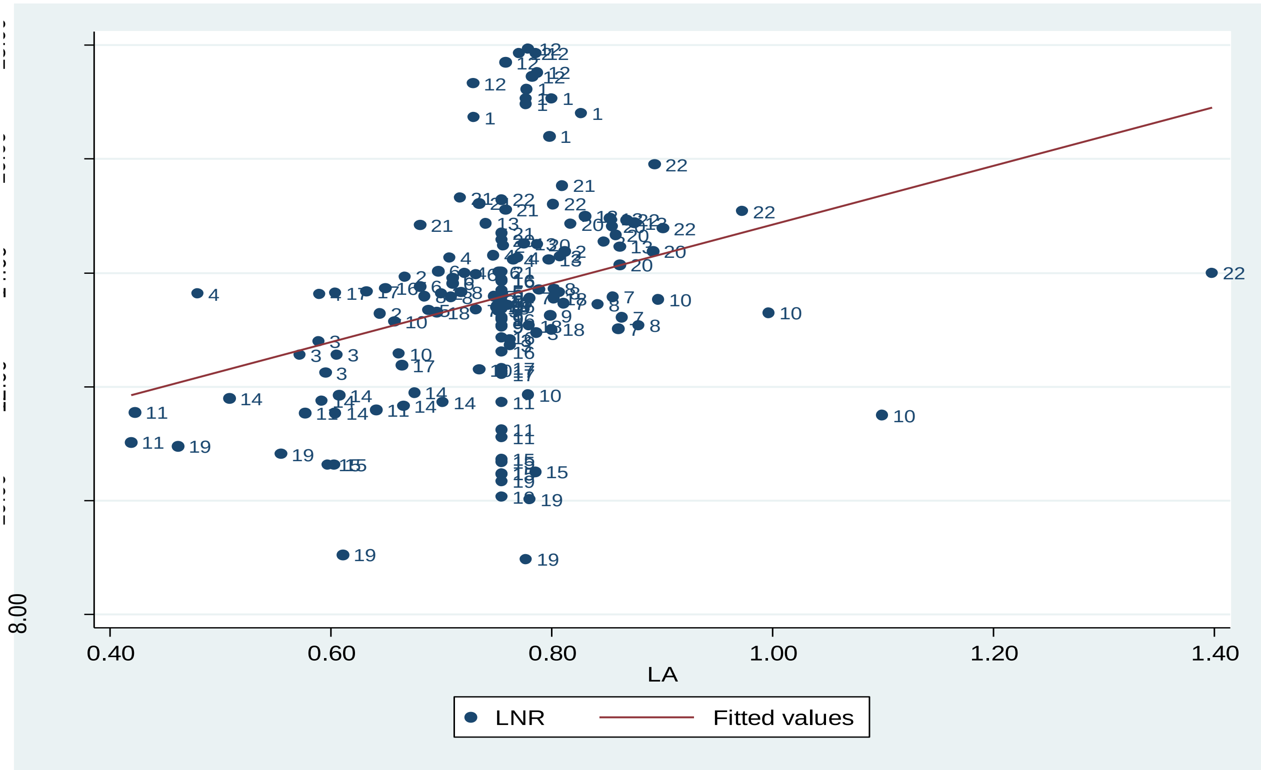


Figure 3.3 The Relationship Analysis, Revenue and Asset structure. Source: authors' calculations

It is vital to consider that banking industry is highly regulated by the government of Russian Federation. The Bank of Russia sets the standards that each credit institution in our country must perform. In case of non-compliance with the regulations, the regulator may recover from the credit institution a fine, impose a ban on certain banking transactions (for example, on accepting deposits from the public, appointing an interim administration in the bank), and in some cases even withdrawing a license from the bank.

The Relationship between Brand value and Liquidity

In the literature review, the divergent views regarding the relationship and the effect of liquidity on revenue indicator was explored. Furthermore, the descriptive analysis above showed that local banks prefer to invest in short term liquid assets as demonstrated by the high liquidity ratios. Figure 3.4 shows a correlation coefficient of -1.046 between revenue and liquidity, indicating a negative correlation between the two variables. The lower liquidity level, the higher brand value. These findings seem to be consistent with the argument that liquidity has a negative effect on bank performance (Kamau, 2009), but they seem to be against the counter-argument that illiquidity force banks to borrow from the money market expensive funds, or to prematurely liquidate their long-term investments at “fire prices‟ to cover their immediate cash needs, thus reducing their profitability (Elyor, 2009). Generally, a relatively lower level of unencumbered liquid assets may be sufficient if funding sources are stable, established borrowing facilities are largely unused, and other risk characteristics are predictable. Minimum liquidity requirements by the Central Bank of Russia should be taken into consideration.

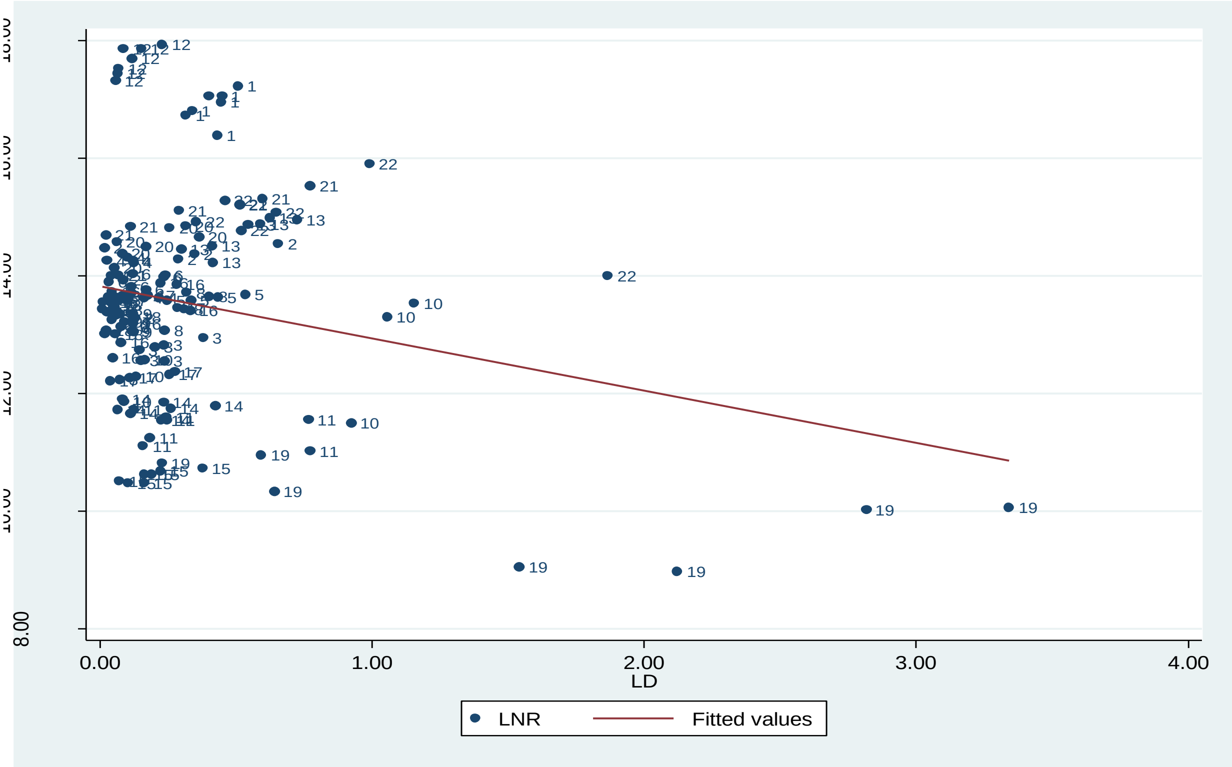


Figure 3.4 The Relationship Analysis, Revenue and Liquidity. *Source: authors' calculations*

The Relationship between Revenue and Income diversification

This impact is statistically insignificant at least, at 5% test level. So, the following hypothesis that Income diversification has a positive relationship with brand value is rejected. This means that Income diversification is not determinant factor in brand valuation process for the sector as whole, however the impact of Income diversification is statistically significant for SME sector. This means that adopting strategy of diversifying income for small and medium banks will bring more revenue for a company and, as a result, increase its brand value.

The Relationship between Revenue and loan portfolio

The proportion of commercial & industrial loans in total loans is statistically insignificant at least, at 5% test level. This means that the number of commercial & industrial loans is not determinant factor in brand valuation process. Otherwise, the proportion of consumer loans in total loans is statistically significant at least, at 5% test level. Having the positive correlation coefficient, this fact means that the higher number of consumer loans are contained in loans' portfolio in commercial bank, the higher is revenue and the higher is brand value.

3.6. Managerial implications

The results provide managerial implications for the key stakeholders in the banking industry: government authorities, bank owners, CEO, CFO, bank managers, and bank clients. Knowledge of determinants of brand value helps them in in strategic decision-making processes. To begin with, asset quality ratio (the higher ratio represents poor asset quality) has a negative effect in the same sample of small and medium banks, and large banks. The results show that small and medium banks have a poor loan book in comparison with large banks. This means that all banks, especially small and medium ones, need to improve screening procedures of reliability and creditworthiness of customers. Establishing smart-move systems and find reliable solutions for checking customers' ability to pay money back is vital to all banks. Moreover, improving current standards of credit rating will also reflect the interests of credit institutions. Due to fact that process of screening fluctuated during business cycle it is essential for banks to check their customers and monitor credit risks.

Another important implication after asset quality is asset structure. This factor has positive affect for all banks than means that increasing a relative amount of loans in loan portfolio leads to increase revenue and loan's brand value. Two strategies can be used to increase relative amount of loans in loan portfolio. The first one is to focus on individual clients through corporates providing customer services and various loans to individuals. The second strategy is to concentrate on corporate loans varying from loans to SME sector to loans to enormous international corporations. Increasing number of loans as the main source of revenue can be based on retail-oriented activity, with an extensive office network and close contact with customers.

Generally, keeping a relatively lower level of liquid assets may be sufficient if funding sources are stable, established borrowing facilities are largely unused, and other risk characteristics are predictable. It is important to mention that requirement for minimum level of liquidity is established by the government in Russian banking system.

Finally, income diversification is of high importance for the SME sector. The results show that small and medium banks that diversify their sources of revenue among commission fees, trading income, interest income, foreign exchange trading and other alternative sources generate more revenue and have gather brand value that those which concentrate on one source of revenue.

To add, it is important to develop strategy to attract more consumer loans to loan portfolio. It is also confirmed be the fact that the number of customer's loan provided by Russian banks doubled in 2017.

The findings of this research may also be beneficial for government authorities, regulatory bodies and auditors. Central Bank of Russia may request banks to disclose some information on brands as main intangible assets to increase transparency and reliability of the financial reports. Without information about full value of their brands, banks lose their competitive advantage and make investors blind by hiding strength that lies. Disclosure information of both intangible and tangible assets allows investors to manage their portfolio in more appropriate way and make more proper strategic decisions. It is essential for Russian government authorities to ensure incentives to the bank managers to disclose information about intangible assets.

We believe, that, nevertheless, proposed managerial implications seem evident, following these simple rules could help management evaluate a brand for the benefit of their company.

3.7. Limitations and suggestions for further research

While discussing both theoretical and practical contributions of the research conducted, it is worth to mention that there are certain limitations of the study, that were unavoidable during the process of conducting the empirical research. However, based on the result obtained, it is not sufficient to focus only on financial variables to determine the company's performance especially when brands are supposed to last forever (Esch et al., 2015). For the long-term prospect of the brand value, other variables such as brand trust and satisfaction do act as factors driving to consumer buying behavior. Therefore, continuous analyzing different indicators that have an impact to the business in some way can assist banks to interpret the result and make corresponding decision.

Moreover, in Russian Federation financial reports of banks are based on Russian GAAP, whereas IFRS reports are used in foreign countries. So, it is difficult to compare results or to make a benchmark analysis (in some cases it is impossible to find similar M&A deal or licensing agreement).

To add, the relationship of brand value and operational risk, market risk, bank performance (profitability of banks), cost structure and earnings management can be studied.

CONCLUSION

In this paper factors that determine the brand value of commercial banks were analyzed. The goal of this study was to define determinants that influence on brand value of commercial banks. In the furtherance of the stated goal all the research objectives we achieved.

We began with investigation of theoretical concepts of brands and considered key components of the brand valuation process. Then, we have analyzed approaches to brand valuation and reviewed contemporary research on assessing banking brand. Furthermore, we have conducted an econometric analysis which helped us to identify factors which determine influence on brand value of commercial banks.

The results were obtained by supporting the following hypotheses:

- Bad loans (non-performing loans) has a positive relationship with brand value
- Market capitalization of the bank has a positive relationship with brand value
- Sustainable liquidity level has a positive relationship with brand value
- Predominance of consumer loans in loan portfolio has a positive relationship with brand value

The results were obtained by rejecting the following hypotheses:

- Income diversification has a positive relationship with brand value
- Predominance of commercial & industrial loans in loan portfolio has a positive relationship with brand value

The findings of regression analysis confirmed the policy of Central Bank of Russia: significant factors for brand value of banks are monitored by Central Bank. Bank performance is highly regulated by Central Bank which establishes requirements for the adequacy of bank capital and reserves and restricts the amount of loans to related companies.

Theoretical contribution of this study is the creation of statistically significant model that can be used in evaluation of Russian banks' brands while having the information about financial bank performance: revenue, total assets, total loans, bad loans (non-performing loans), revaluation reserves, loan portfolio.

Based on the findings of the current study, a set of managerial implications was developed:

1. Asset quality showed a negative effect, statistically significant 5% level, meaning a 1% increase in the asset quality ratio. This means banks need to improve their processes of screening credit customers and monitoring of credit risk.
2. Elyor (2009) argued that banks with the higher relative percentage of loans in the assets a stronger revenue generating capacity and earn more income, and, as a result, have a higher brand value. The analysis revealed that loan portfolio is the most robust and important factor

influencing banks' performance in the sector. This result means banks should focus on improving their loan portfolio in order to improve their brand value.

3. Due to fact that the effect of liquidity was statistically significant at 5% significance level, indicating that liquidity positively influences brand value. The implication of this finding is that investing in short-term, less risky securities like government bonds leads to increased brand value. Nevertheless, the descriptive statistics analysis showed that liquidity in the sector is well above statutory limits, so the effects of liquidity on brand value are mixed but these findings are consisted with Kosmidou et al (2014).
4. It is important to develop strategy to attract more consumer loans to loan portfolio. It is also confirmed be the fact that the number of customer's loan provided by Russian banks doubled in 2017.

The contribution of this study is the coherent and thorough analysis of factors that determine brand value of the commercial bank. Study of royalty rates could be valuable field for further research in Russia, taking into account the fact that until now most of the studies devoted to the royalty rates were conducted in foreign countries.

While discussing both theoretical and practical contributions of the research conducted, it is worth to mention that there are certain limitations of the study, that were unavoidable during the process of conducting the empirical research. However, based on the result obtained, it is not sufficient to focus only on financial variables to determine the company's performance especially when brands are supposed to last forever (Esch et al., 2015). For the long-term prospect of the brand value, other variables such as brand trust and satisfaction do act as factors driving to consumer buying behavior. Therefore, continuous analyzing different indicators that have an impact to the business in some way can assist banks to interpret the result and make corresponding decision.

REFERENCES

Federal Law “About the Central Bank of the Russian Federation (Bank of Russia): Federal Law of July 10, 2002, No. 86-FZ” // Reference legal system "GARANT": NPP "Garant-Service", 2018.

Federal Law “On Banks and Banking Activities: Federal Law No. 395-1 of December 2, 1990” (as amended on April 4, 2008, No. 46-FZ, as amended on October 27, 2008, No. 175-FZ) // The Legal Reference System " GARANT ": NPP" Garant-Service ", 2018.

Federal Law “The Civil Code of the Russian Federation (part two) of 30.01.1994 No. 51-FZ” (as amended on November 30, 2014) // The reference legal system "GARANT": NPP "Garant-Service", 2018.

Official website of the Bank of Russia [Electronic resource]. URL: http://www.cbr.ru/

Official website of Brand Finance [Electronic resource]. URL: http://brandfinance.com/

Review of the banking sector of the Russian Federation. The central bank of the Russian Federation № 157 November 2017.

Abalkina A.A., Forms and methods of expansion of Russian banks abroad // Finances and credit (2014).

Abalkina A.A., Ivanova K.S., The exit of Russian commercial banks to foreign countries // ME and MO (2016). № 5.

Albertazzi, U., & Gambacorta, L. (2009). Bank profitability and the business cycle. Roma: Banca dItalia. Journal of Financial Stability №5.

Aaker, D. A. (1996). Building strong brands. New York: Free Press.

Bikker, J., & Hu, H. (2002). Cyclical patterns in profits, provisioning and lending of banks. Amsterdam: De Nederlandsche Bank.

Baltagi, B. H. (2001). Econometric analysis of panel data. New York: John Wiley publisher.

Carbó Valverde, S., Rodríguez Fernández, F., (2007). The determinants of bank margins in European banking. Journal of Banking and Finance 31, 243–263.

Cardone-Riportella, C., Samaniego-Medina, R., Trujillo-Ponce, A. (2010.) “What drives bank securitisation?” The Spanish experience. Journal of Banking and Finance 34, 29-51.

Claeys, S., Vander Vennet, R., (2008). Determinants of bank interest margins in Central and Eastern Europe: A comparison with the West economic systems 32, 204– 266.

Davis, J. A. (2010). Competitive success: How branding adds value. West Sussex: John Wiley & Sons.

Demirgüç-Kunt, A., & Huizinga, H. (2000). Financial structure and bank profitability. Washington, DC: World Bank, Development Research Group, Finance.

Deighton, John (2002), “How Snapple Got Its Juice Back,” Harvard Business Review, 80 (1), 47–53.

Dobbs, Richard and Timothy Koller (2005), “Measuring LongTerm Performance,” McKinsey Quarterly, (Special Edition), 16–27.

Dutta, Shantanu, Om Narasimhan, and Surendra Rajiv (1999), “Success in High-Technology Markets: Is Marketing Capability Critical?” Marketing Science, 18 (4), 547–68.

Elsas, R., Hackethal, A., Holzhäuser, M., 2010. The anatomy of bank diversification Journal of Banking and Finance 34, 123–147.

Goddard, J. A., & Wilson, J. O. (2016). Banking: A very short introduction. Oxford, United Kingdom: Oxford University Press.

Heffernan, S. (2005). Modern Banking. John Wiley & Sons. London

Jeff Swystun. Northern Exposure (2015). Building Brands in Mergers & Acquisitions

Kevin Lane Keller (2001), "Building Customer-Based Brand Equity: A Blue Print for Creating Strong Brands", Report N0. O1- 107, Marketing Science Institute.

Kamau, A.W. (2009). Efficiency in the Banking Sector: An Empirical Investigation of Commercial Banks in Kenya. Nairobi: University of Nairobi

Gordon V. Smith and Russell L. Parr, John Wiley & Sons (2014). Valuation of Intellectual Property & Intangible Assets Third Edition, New York.

Gordon V. Smith and Russell L. Parr, John Wiley & Sons (2013). Intellectual Property: Joint Venture and Profit Strategies, Second Edition, New York.

Lynne Eagle, Philip Kitchen (2000), "Building Brands or Bolstering Egos? A Comparative Review pf the Impact and Measurement of Advertising on Brand Equity", Journal of Marketing Communications, Vol. № 6 (2)

Mester, L.J. (2010), Scale Economies in Banking and Financial Regulatory Reform, The Region, Federal Reserve Bank Minneapolis, №12 September 2010, 17-19.

Morgan, P., Thornton, J., 1992. Determinants of European bank profitability: a note. Journal of Banking and Finance 16.

Perry, D.P., Katherine S., 2003. Geographic diversification in banking and its implication for bank portfolio choice and performance. Working Paper, Federal Reserve Bank of New York, February.

Pasiouras, F., Kosmidou, K., 2007. Factors influencing the profitability of domestic and foreign commercial banks in the European Union. Research in International Business and Finance 21, 222–237

Naceur, S. (2003). The Determinants of the Tunisian Banking Industry Profitability: Panel Evidence. [Online]. October 2003.

Northcott, C. (2004). Competition in Banking: Review of Literature. Oxford, №14 June 2004. [accessed May 9, 2018].

Sufian, F. (2007), “The efficiency of Islamic banking industry in Malaysia: foreign vs domestic banks”, Humanomics, Vol. 23 No. 3, pp. 112-134.

Sufian, F. (2009a), “Assessing the impact of mergers and acquisitions on bank profit efficiency: empirical evidence from Malaysia”, International Journal Decision Sciences, Risk and Management, Vol. 1 No. 3-4, pp. 111-119.

Sufian, F. (2009b), “Determinants of bank efficiency during unstable macroeconomic environment: empirical evidence from Malaysia”, Research in International Business and Finance, Vol. 23 No. 1, pp. 94-117.

Sufian, F. and Habibullah, M.S. (2009a), “Bank specific and macroeconomic determinants of bank profitability: empirical evidence from the China banking sector”, Frontiers of Economics in China, Vol. 4 No. 2, pp. 174-199.

Sufian, F. and Habibullah, M.S. (2009b), “Assessing the impact of mergers and acquisitions on bank cost efficiency”, Capital Market Review, Vol. 17 Nos 1/2, pp. 251-341.

Sufian, F. and Haron, R. (2008), “The sources and determinants of productivity growth in the Malaysian Islamic banking sector: a non-stochastic frontier approach”, International Journal of Accounting and Finance, Vol. 1 No. 2, pp. 193-215.

URL: www.adme.ru/devid-ogilvi/ [14] URL: www.ama.org — American Marketing Association.

Roses M.Gunningham, (1956), "Brand Loyalty-What, Where, How much?" Harvard Business Review, Vol.34 (Ian-Feb) pp. 116- 128".

Ross, S.A., Westerfield, R.W., and Jaffe, J. 2010. Corporate finance. International edition. McGraw-Hill.

Varadarajan, P. Rajan, Mark P. DeFanti, and Paul S. Busch (2006), “Brand Portfolio, Corporate Image, and Reputation: Managing Brand Deletions,” Journal of the Academy of Marketing Science, 34 (2), 195–205.

Weston, F., Chung K., and Siu, J. (2005). Takeovers, restructuring and corporate governance. Prentice Hall.

APPENDIX 1. RUSSIAN BANKS USED IN THE RESEARCH

№	Name of bank	Total assets amount at 1.04.2018, '000 rub'
1	Sberbank of Russia	24 309 508 214
2	VTB	12 057 804 566
3	Gazprombank	6 274 175 393
4	Alfa Bank	2 658 692 571
5	Moskovsliy Kreditniy Banks	1 899 654 856
6	Unicredit Bank	1 237 179 214
7	Bank Russia	975 354 093
8	Raiffaizenbank	920 730 683
9	Rosbank	914 799 128
10	Rost bank	768 838 797
11	Sovkombank	690 725 196
12	BM Bank	642 470 422
13	Bank "Sankt-Peterburg"	642 314 228
14	Trast	566 564 342
15	Citibank	554 316 394
16	Mosoblbank	541 002 779
17	Bank Uralsib	507 680 310
18	AK Bars	483 903 284
19	Russkiy Standart	376 516 962
20	SMP Bank	354 181 741
21	Novikombank	336 351 571
22	Tinkoff bank	297 229 931