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Master in Management Program

**CHOICE OF BRAND VALUATION METHOD**

**IN INTERNATIONAL JEWELLERY BUSINESS**

Master’s Thesis by the 2nd year student

CEMS Master in International Management

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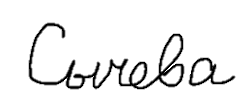
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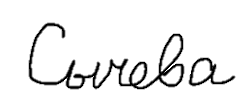
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АННОТАЦИЯ

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| Описание цели, задач и основных результатов | Цель работы: идентифицировать методы оценки бренда, подходящие специфике оценки бренда международного ювелирного бизнеса, и разработать рекомендации по оценке бренда международных ювелирных компаний для менеджеров.  Задачи:   1. Определить роль оценки бренда и проблемы, связанные с ней; 2. Проанализировать и сравнить методы оценки бренда; 3. Идентифицировать специфику оценки бренда в международных ювелирных компаниях; 4. Провести оценку бренда выбранных международных ювелирных компаний; 5. Выбрать методы оценки бренда, которые подходят международному ювелирному бизнесу; 6. Разработать рекомендации по применению выбранных методов оценки бренда основываясь на специфике международной ювелирной отрасли.   Основные результаты: для достижения цели на основе теоретического анализа была построена модель и проведены количественные оценки бренда ювелирных компаний Tiffany & Co, Chow Tai Fook и Pandora пятью отобранными методами. Тестирование модели было проведено через анализ чувствительности, сравнение полученных значений с контрольной оценкой бенчмарка и максимальной величиной бренда, определенной как разница между текущей рыночной стоимостью компании и ее балансовой стоимостью. В результате анализа были определены два метода оценки бренда, подходящие специфике компаний международной ювелирной отрасли, и разработаны рекомендации для менеджеров по внедрению оценки бренда для ведения бизнеса. |
| Ключевые слова | Оценка бренда, методы оценки бренда, ювелирные компании |

ABSTRACT

|  |  |
| --- | --- |
| Master student’s name | Lidia Sycheva |
| Master thesis title | Choice of brand valuation method in international jewellery business |
| Educational programme | ВМ.5669 Management (Master in Management – MiM) |
| Main field of study | 38.04.02 Management |
| Year | 2018 |
| Academic advisor’s name | Dmitri Knatko, Candidate of Economics, Assistant Professor, Department of Strategic and International Management |
| Description of the goal, tasks and main results | Goal of the paper: to identify brand valuation methods that are suitable for the international jewellery business, taking into consideration specifics of the industry, and develop recommendations on brand valuation of international jewellery companies for managers.  Tasks:   1. To specify the role of brand valuation and problems associated with it; 2. To analyse and compare brand valuation methods; 3. To identify specifics of brand valuation for international jewellery companies; 4. To valuate brands of selected international jewellery companies; 5. To select brand valuation methods that fit international jewellery business; 6. To develop recommendations on the application of selected brand valuation methods based on the specifics of the jewellery industry.   Main results: to achieve the goal, the conceptual model was developed based on the theoretical research and brand valuation of jewellery companies Tiffany & Co, Chow Tai Fook and Pandora was conducted using five selected methods. The model was tested with the sensitivity analysis, benchmark comparison and the brand ceiling value comparison (defined as the difference between the market capitalization and the equity book value of the company). As a result, two methods that comply with the specifics of the international jewellery business were selected and recommendations for managers on implementation of brand valuation for business activities were proposed. |
| Key words | Brand value, brand valuation methods, jewellery companies |

TABLE OF CONTENT

Introduction 6

1. The problem of choice of brand valuation method in international jewellery business 9

1.1. Defining brand, brand value and brand valuation 10

1.2. Importance of brand valuation 12

1.2.1. Economic and strategic importance of brand valuation 13

1.2.2. Importance of brand valuation for mergers and acquisitions and accounting 14

1.3. Choice of brand valuation method and challenges associated with it 16

1.4. Analysis of brand valuation methods 19

1.4.1. Cost based approach 20

1.4.2. Market based approach 22

1.4.3. Income based approach 24

1.4.4. Research based approach 28

1.4.5. Other methods 29

1.5. Comparison of the brand valuation approaches 30

1.6. Specifics of brand valuation in international jewellery business 34

1.6.1. Determining brand value and brand equity in international jewellery business 34

1.6.2. International jewellery business: industry analysis 36

1.6.3. Role and problems of brand valuation in international jewellery business 37

1.6.4. Applicability of brand valuation methods in international jewellery business. Conceptual research model 40

2. Empirical study on the choice of brand valuation methods in international jewellery business 45

2.1. Research design 45

2.2. Research method and methodology 46

2.3. Justification of the chosen sample 46

2.3.1. Tiffany & Co 47

2.3.2. Chow Tai Fook 48

2.3.3. Pandora 49

2.4. Preliminary calculations 50

2.4.1. Currencies and WACC calculation 50

2.4.2. Estimation of the evolution of the statement of earnings 53

2.5. Brand value calculations 54

2.5.1. Transaction multiple method 55

2.5.2. Excess earnings method 56

2.5.3. Royalty relief method 59

2.5.4. EBIT comparison method 61

2.5.5. Demand driver method 63

3. Results of the analysis and discussion 67

3.1. Empirical results 67

3.1.1. Comparison with the brand ceiling value 68

3.1.2. Comparison with the benchmark 69

3.1.3. Sensitivity analysis 71

3.2. Recommendations and managerial implications 80

3.3. Theoretical contribution, limitations and further research 82

Conclusion 84

References 85

Appendices 92

# Introduction

*“If this business were to be split up, I would be glad to take the brands, trademarks, and goodwill and you could have all the bricks and mortar – and I would fare better than you”*

John Stuart, Former Chairman of Quaker Oats Ltd

One can hardly deny the importance of brands for the modern companies. Brands represent very important strategic assets of many companies; they can constitute a major part of what the business as a whole is worth. As an intangible asset, the brand is not just a name or a symbol associated with a company, it also carries brand loyalty, name awareness, perceived quality, and brand associations.

In the situation of intense competition between companies, the value that a brand provides becomes a source of a competitive advantage. On the one hand, brands provide value to customers by increasing confidence in the purchase decision, by building a more attractive image of the company and products it offers, by improving satisfaction when the product is purchased and used. Take a look at a Chanel bag, for example. What would it be worth without the Chanel logo on it? Intuitively, one can build up his or her own perception of the value of a brand, for example, by watching advertisement about the brand, or by learning about the way product from this brand is produced. Brand value is important for both companies and their customers. On the other hand, brands provide value for a company by an overall improved efficiency of marketing programs, strengthened brand loyalty, and a possibility to charge price premium. What is also important, brands act as a tool to distinguish a company from competitors and build an attractive image for clients. What is more, a very important action in brand management is the non-financial brand evaluation and the brand valuation that can be fulfilled by application of different models to identify the economic brand value. Identification of economic value of a brand is currently becoming more and more important, as a percentage of intangibles in the financial structure of companies has been continually growing and more and more assets recognized as productive resources do not appear in the balance sheet. Plus, investments in intangible assets have been expanding and managers need a reliable tool to measure their economic value.

However, many companies often find themselves lost between the methods of brand valuation as different methods end up with different values. Firstly, companies encounter challenges with the identification of relevant brand attributes, secondly, they do not know which brand valuation method would be the most reliable and would provide a fair value of the brand in question. The challenge is especially remarkable for the international jewellery business. International jewellery companies generally rely on the strength of their brand to build up an attractive aura of the prestige for their products and set high price margins. They perceive brand valuation as a highly relevant activity, as it provides a fair value of their brand, and this value is further used to adjust strategies, make decisions about marketing efforts, etc. They need to carefully choose a suitable brand valuation method, taking into consideration specific limitations associated with the industry.

Dynamics of the industry, changes in consumer behaviour and the industry itself, growing trends in internalisation and reconfiguration of channels influence jewellery business and cause challenges for brand valuation. The growing tendency of future industry consolidation due to mergers and acquisitions highlights the need to develop a knowledge that shapes brand valuation in the international jewellery business.

Therefore, the objective of this paper is to analyse existing brand valuation methods and problematics of brand valuation, study specifics of brand valuation for jewellery business and, most importantly, identify brand valuation methods that meet the specifics of international jewellery companies and provide a fair brand value. Cases of Tiffany & Co, Chow Tai Fook and Pandora jewellery companies were selected to execute brand valuation using several methods. The paper suggests methods that could provide potentially more reliable results of the brand valuation for the international jewellery companies and develops a guidance for managers as well as for scholar working in this particular academic field.

**The research questions** are:

Q1. What are the problems of brand valuation in international jewellery business?

Q2. What are the brand valuation methods that provide fair brand value for international jewellery companies?

**The goal of the study** to identify brand valuation methods that are suitable for the international jewellery business, taking into consideration specifics of the industry, and develop recommendations on brand valuation of international jewellery companies for managers.

To achieve the goal, the following **research objectives** were set:

1. To specify the role of brand valuation and problems associated with it;
2. To analyse and compare brand valuation methods;
3. To identify specifics of brand valuation for international jewellery companies;
4. To valuate brands of selected international jewellery companies;
5. To select brand valuation methods that fit international jewellery business;
6. To develop recommendations on the application of selected brand valuation methods based on the specifics of the jewellery industry.

The **object** of the research is international jewellery companies.

The **subject** of the research is brand valuation methods that international jewellery companies implement to value their brands.

**Research** **methodology** of the paper consists of comparative literature analysis, secondary data analysis, quantitative studies (deductive method, exploratory multivariate method, databases).

The theoretical foundation of the current thesis consists of studies of Russian and foreign researchers. The most significant papers belong to Philip Kotler, Jean-Noël Kapferer, Kevin Lane Keller, Catharina Kriegbaum, Gabriela Salinas and others.

**Thesis structure**: the goal and the objective determined the structure of the current thesis.

The first chapter is devoted to the analysis of brand valuation methods and existing problems, associated with brand valuation. The chapter discusses main terms related to brand valuation, highlights challenges associated with brand valuation, specifies problematics associated with the brand valuation in the international jewellery industry. The analysis is concluded by the comparative table of brand valuation methods and discussion on the applicability of particular brand valuation methods for the international jewellery business. A conceptual model of the research and hypotheses are also presented in the chapter.

The second chapter pursues an empirical study aiming to identify brand valuation methods that can be implemented for determining the fair brand value of international jewellery companies. Research methodology and research findings of the study are presented. Description of empirical results is provided.

The third chapter provides analysis of research findings and suggests selected brand valuation methods to be implemented by managers in the international jewellery companies. Managerial implications and recommendations on brand valuation in international jewellery business based on the empirical results are discussed.

Theoretical implication of the research is improved understanding of specifics and challenges associated with the brand valuation of international jewellery companies. Moreover, the paper elaborates on brand value and brand equity in the international jewellery business. Directions for further research are formulated. The practical implication is concerned with the identification of brand valuation methods that can be implemented for brand valuation of international jewellery companies based on specifics of the industry. The paper suggests guidelines for managers on implementation of selected brand valuation methods for business activities.

# 1. The problem of choice of brand valuation method in international jewellery business

1989, Ford Motor Company announced that it had purchased Jaguar P.L.C., the deal that reflected a trend of consolidation of the world auto industry. $2.38 billion was paid by Ford, and this offer seemed extraordinary for Jaguar, a British luxury and sports car maker that made 51939 cars that year and just managed to break even. Thus there was something in that purchase that Ford valued more. And yes, what is remarkable about the deal is that physical goods of Jaguar constituted only 16 percent of the total value of the acquisition, thus leaving 84 percent to the price of the name “Jaguar” (Prokesch, 1989). This fact changes the perspective on the products because now people buy not just the content of a product, but also its essence, the brand.

Branding has become a strategic investment, brands are considered to be extremely valuable assets and if they are managed well they enable a price premium for products, provide a guaranteed stream of future income to a company and increase customer loyalty. Brands belong to the intangible assets that provide a source of earnings, and depending on the market they can account for up to 70 percent of the earnings. Brands serve as a competitive advantage, not only distinguishing the product from similar ones from competitors, but also bringing higher financial returns.

The theory of brands goes hand in hand with the theory of marketing, and as it has been argued, the new dominant for marketing pays much more attention to the intangible resources, as well as relationships with customers and value that brands create. Brands bring functional and emotional value. And what is more, with the growth of the service sector and importance of an exceptional service in product-based brands, it is crucial to develop a balanced perspective on brands, as they are not exclusively about focusing on customers, they should also pay attention to the personnel that diffuses the brand value within the firm and conveys it to the clientele. Thus, the capability of a brand to generate wealth for a company results from the way this company is striving to add value to the customer’s life from within and from the outside (De Chernatony, 2006).

The growing impact of brands on company’s performance and the overall increase of the role that brands play in different industries create a new challenge for managers and researchers. Understanding that brands often are the most valuable assets in a firm, managers are looking for ways to estimate their value. They also strive to estimate the value of brands they would like to purchase. They would like to know the contribution of brands to the financial performance of the firm. However, as brands are subjective by nature, brand valuation is a rather complicated process, since it's very difficult to compute an absolute quantified value that will provide a fair result. In order to carry on successful brand valuation for a particular brand, managers should firstly identify the purpose of brand valuation, and secondly, overcome the common challenges associated with the process. This chapter focuses on introduction of main terms, main brand valuation methods, discusses purpose of brand valuation and problems that can occur while executing this exercise. The chapter ends with the jewellery industry’s highlights and analysis of applicability of the brand valuation methods to the specifics of the international jewellery industry.

## 1.1. Defining brand, brand value and brand valuation

*- Brand and brand value*

One can argue that there is a wide range of interpretations of the term “brand”, and there isn’t one single definition that would cover the scope of such a versatile term. For example, as Aaker suggested, brand should define not only the functional purpose, but only express social and emotional benefits (Aaker, Joachimsthaler, 2002). The definition of Scott Galloway - “a brand is the face of business strategy” - proves that brand and strategy are very closely linked together, and brand building and development are executed by a combination of business functions. Cracuin (2009) concludes that brand of a company can be presented as a house that unites all the main characteristics that build up a recognized brand.

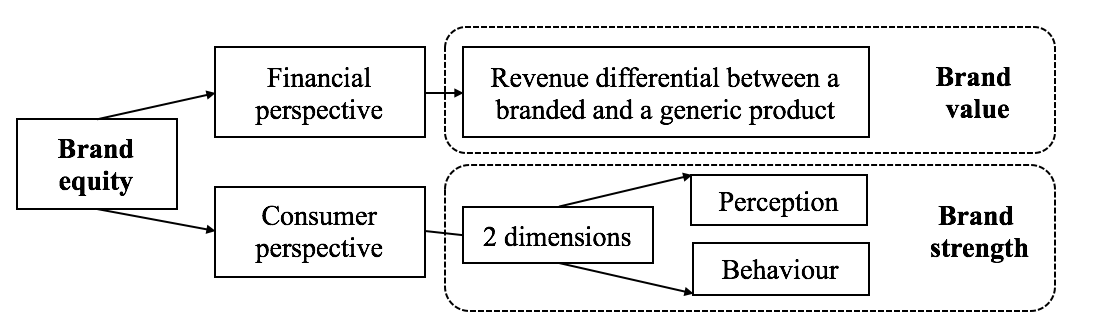
There is also a classical definition of the American Marketing Association (AMA) that states that “brand is a name, term sign, symbol or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those competitors” (AMA, 2017). The stress here is put on a brand as a logo. Seetharaman et al., (2001) defined brand “as an asset that does not have physical existence and the value of which cannot be determined exactly unless it becomes the subject of a specific business”. Kotler defined the concept from the marketing perspective and used the following definition of a brand: “name, term, sign symbol (or a combination of these) that identifies the maker or seller of the product” (Kotler et al., 2005).

Throughout this paper, the researcher sticks to the definition provided by the International Organization for Standardization (ISO) International Standard 10668 (Heberden, 2011), as it gives a multifaceted understanding of the term and also identifies “brand” from both marketing and accounting perspective, what is crucial in the following parts of the paper. In such a manner, then, “brand is marketing-related intangible asset including, but not limited to, names, terms, signs, symbols, logos and designs, or a combination of these, intended to identify goods, services or entities, or a combination of these, creating distinctive images and associations in the minds of stakeholders, thereby generating economic benefits/values”, where intangible asset is “identifiable non-financial asset with no physical substance”.

*- Brand equity*

When it comes to the brand equity, one can observe that there is no consensus on the definition of “brand equity”, as well as there is no general approach about measuring or evaluating the value of a brand. Brand equity can be identified as a collective value of a brand that is perceived by consumers. It is the amount of money customers will be willing to pay above the worth of a product to receive the value that a brand conveys. It can be measured by the familiarity with a brand, customer loyalty, promotions, and corporate reputation. The definition of D.A.Aaker (Aaker, 1991) defines the brand equity as the “set of assets and liabilities linked to a brand, its name and symbol, that adds or detracts from the value provided by a product or service to a firm and/or to the firm’s customers”.

Brand equity can be defined as having so-called behavioural and at the same time financial value, as presented in the figure 1.



*Figure 1. Perspectives on brand equity (Salinas, 2009)*

However, bearing in mind different approaches to the brand equity, this paper sticks to the definition of brand equity as a subjective evaluation or perception that a customer has about a brand.

*- Brand value*

Opposed to the brand equity, brand value refers to the financial value that a brand has.

Brand value can be defined as the “sales of replacement price of a brand” (Raggio, Leone, 2008). It is the internal value of a particular brand that is developed within a company. It can be also defined as the added value endowed to product and services (Kotler, Keller, 2014). Brand value consists of all the resources that were used to build up and develop the brand, and it equals all the benefits generated by the brand minus costs of acquiring and owning it.

To underline the difference between brand equity and brand value, one should consider the following: brand valuation is the financial estimation of the brand’s economic value, and brand evaluation is the process to define the brand equity. As brand equity deals with consumer perceptions and behavioural patterns, the most well-known brand evaluation methods are the following:

* Brand Asset Valuator (Young & Rubicam);
* Equitrend (Total Research);
* BranDynamics (Millward Brown);
* The Brand Equity Ten (David Aaker).

These methods help understand particular characteristics about strengths and weaknesses of brands and perception of customers on brands., their brand awareness and considerations about particular brands. But despite the fact that these methods are useful for brand evaluation, they cannot be used for financial brand valuation to determine the economic value of a brand. But overall they are handy for estimation of brand potential in relevant markets (Salinas, 2009).

*- Brand valuation*

As it was previously discussed, brand valuation is the financial estimation of brand economic value, and valuator has a goal of obtaining the correct and reliable brand value. It is about valuation of the brand perception on the customers’ decision to buy a product, but to buy it at a higher price (Haxthausen, 2009). For the current paper, “correct brand value” means “fair brand value”. In order to clarify the meaning of the term in the frames of this research, several aspects should be considered. In general, fair value is the sale price agreed by both buyer and seller, when both parties of a transaction agree about the details of this transaction. Many investments determine the fair value by the market where the trade takes place. During mergers or acquisitions, for example, the fair value of a company is considered to be the sale price reached by the two parties of the transaction, who should have full knowledge of the information available (Kapferer, 2012). International Financial Reporting Standard 13 states that fair value is the price that would be paid should the asset valued be transferred from an entity to another in a transaction (IFRS, 2017). This will be the objective price for an asset. Throughout the paper, the researcher uses the term “fair brand value” when calculating brand value.

## 1.2. Importance of brand valuation

“Brand valuation gets at the heart of how brands create value” (Kapferer, 2012). Determining brand value is important for a company due to the following reasons. Managers need to know the value that their brands generate in order to adjust their strategy. Furthermore, they need to understand the impact brand value has on financial statements, as intangible assets might require specific treatments for accounting purposes. Finally, they need to know the contribution of the brand to the value of the entire company, and whether the brand justifies the market premium. Brand valuation has its fair share in reporting, communicating, management, playing an important role in the majority of the activities that a company undertakes.

There are many aspects that help define benefits of brand valuation. Brand value brings value in strategic and economic context; it is relevant for mergers and acquisitions; the importance of brand valuation should also be considered within the frames of accounting standards. All of them will be discussed in the following sections.

### 1.2.1. Economic and strategic importance of brand valuation

*- The economic importance of brand valuation*

The economic value of brand valuation brings a set of benefits to the company. Firstly, financial statement with a brand value included provides an attractive picture of a financial position of a company with good assets and the solid brand value. This, in turn, improves the image of the company and its ability to have higher equity prices, better loan terms from capital market or acquire more public financing. Also, the brand value in the balance sheet can be favourable for the book-to-market-equity ratio. Secondly, brand value can be a source of competitive advantage for a company by developing a unique brand that differentiates it from competitors. Customers are willing to pay extra for a product when this product has a higher utility, however, the image and perception that customers develop towards a particular brand is one of the key drivers in purchasing decision. The good brand image brings a higher level of satisfaction, leading consumers to spend more to obtain such a product. Thirdly, investors in public companies represent a group of stakeholders particularly interested in the value of brands a company owns. It is important in industries where brands secure continued revenue inflow, e.g. luxury or jewellery business, especially. The potential of a brand to generate future profits depends on the strength of relationships established between consumers and brands of a company. Therefore, information about the value of major brands in a relation to the value of a company is important for investors (Sinclair, Keller, 2014).

*- The strategic importance of brand valuation*

In the context of strategy, brand valuation can be a very useful tool for managers, as brand value provides an economic feedback on their strategic decisions, marketing efforts and overall brand management. A thorough and well-developed strategy towards brand value is applied to increase shareholder value, what can be achieved through a variety of activities. Firstly, accounting information about brand value is very useful in decision-making on the strategic level, for example, in the allocation of scarce resources between different brands. The brand value influences the decision about optimization of brand portfolio, allocating advertisement budgets, setting prices or launching new brands. Secondly, information about the value of brands helps monitor the performance of the company in general and performance of brands in particular. Valuation of a brand on different stages of its life cycle allows the company to assess the effectiveness of existing brand strategies, analyse the contribution of the management strategy to the brand value, assess brand value drivers. Last but not least, as a circumspect approach towards branding brings a competitive advantage (differentiation, price premium), a company can keep this advantage for longer when all internal stakeholders share information about the brand value. Brand valuation can explain the performance of involved departments (marketing, operations, strategy), and also increase communication between them to achieve higher productivity (Chintha Sam Sundar, Kollipara Vamsi Prased, 2012).

### 1.2.2. Importance of brand valuation for mergers and acquisitions and accounting

A separate section should be devoted to the brand value for acquisitions. Brand valuation plays a significant role in M&A. Any case of a merger or an acquisition should generate value for shareholders in a way that the price paid is lower than the real value or that return on investment (ROI) will be higher than the weighted average cost of capital (WACC). When the targeted company possesses strong brands that are expected to continue their positive trend and grow in value, the acquiring company is ready to pay a premium above the given book value. For accounting purposes, this premium is stated as a goodwill in the balance sheet, and it reflects the value of acquired brands, patents, etc. Valuation of a brand should be conducted before merger or acquisition, as it establishes a price which will be justified by expected synergies and intended plan for further brand development. As a result, brand valuation is used to prevent overpayment for a brand of losing a bid that looked unattractive (Kapferer, 2012).

The acquiring company is looking for an answer to the question – how much the profits of the company increase after the acquisition of a chosen brand. The valuation conducted in a proper way can help evaluate and therefore anticipate future cost savings, higher profits etc.

According to Kapferer (Kapferer, 2012), international accounting implies that brands are able to acquire value through the market, so that when they are purchased by another company. This results from the accounting principles of prudence and objectivity, based on which the estimates regarding internally generated brands are too doubtful to be considered before a market transaction of sale occurs.

Under the International Financial Reporting Standards (IFRS), the cost of generating intangible assets can frequently be difficult to distinguish from the costs of maintaining operations of a firm. Due to that reason, internally generated brands are not recognized as intangible assets of a firm (IAS, 2017). Given the accounting principle of conservatism, a company recognizes in its balance sheets only the brands that were purchased individually, or those brands whose value was included in the price of an acquired company, not internally built brands (Kapferer, 2012). With this principle, an expenditure related to internally generated brands is included in the income statement for the year when it is incurred and its historical cost, and not in the balance sheet (IAS Plus, 2017). Further it is explained by Sinclair and Keller (Sinclair, Keller, 2014) that “expenditure on internally generated brands cannot be distinguished from the cost of developing the business as a whole”.

This case creates a debate about the data presented on a balance sheet according to the existing accounting principles. Under the current approach, only objective data, past recorder transactions and included in the financial statement. However, it creates a discrepancy between the true financial value of a company and value presented in financial statements, as they exclude internally built brands. What is more, when internally generated brands are not included in the category of intangible assets, it “masks the full contribution brands make to enterprise wealth” (Sinclair, Keller, 2014). And there are multiple examples of very powerful brands that cannot be recognized on the balance sheet of a company because they were generated in-house (e.g. Apple, Amazon).

When these in-house generated brands are not recognized in the balance sheet, it creates a challenge as these situation complicates comparability of companies that have their own brands and companies that purchase their brands and can include the value of such brands in their balance sheet. It creates an issue as the lack of balance sheet recognition in internally generated brands decreases the value of assets, and thus capital employed, what subsequently increases the value of return of capital employed (ROCE), as according to the formula (ROCE = EBIT (earnings before interest and tax) / capital employed), the value for capital employed will be lower for companies that own their brands.

As for the acquired brands, accounting standards use a different approach. IFRS 3 Business combinations states that acquirer recognized and measures purchased goodwill (and brands are included to the goodwill) in its balance sheet (IFRS, 2017). According to FAS 141 Business combinations (Financial Accounting Standards), the value of the brand that had been acquired has to be measured immediately after the transaction has been registered at a fair value measured at the estimated exit price (FASB, 2007).

FAS 141 also states that acquired intangible assets that have indefinite useful life are not subject to amortization. This assumption is applicable to the majority of brands that a company can own unless it is a brand that company is planning to stop using at some point in a foreseeable future. Thus, the brand value is included in the balance sheet and then tested for impairment on an annual basis to ensure that the value of an asset is not vanishing over time. Usually DCF (discounted cash flow) or market value methods are used to run the impairment test. In case there is a loss in impairment, it will then be included in the income statement as every loss has a negative impact on the profits of a company.

It is also important to mention that an acquired brand that is still in the beginning or in the middle of its lifecycle and can rise in its value after the acquisition, will not be included in the balance sheet. It takes place because the value of a brand is tested for impairment only, not for its growth, what can result into underestimation of its value and its contribution to the company.

## 1.3. Choice of brand valuation method and challenges associated with it

Prior to making choice about brand valuation method to be implemented, several factors that influence this choice should be considered.

First of all, the purpose of brand valuation should be clearly stated, as it influences many factors of the following brand valuation itself. The underlying business problem behind the brand valuation should be identified and addressed so that the outcome helps resolve a particular issue. Thus, companies that exercise brand valuation, should not just ask: “What is the value of the brand?”, but rather think about how and for how much the brand can contribute to the overall success of the company. So it helps firms identify sources of customer value and financial costs of delivering this value to maintain successful business (Haigh, Knowles, 2004). The next important question to consider is what exactly will be valued. It can be a particular trademark, or a family of brands, or an entire business. Based on this information, a specific method for brand valuation is chosen.

In general, the three major purposes of brand valuation are the following (Salinas, 2009):

* Brand valuation for brand management (for strategic planning, brand portfolio management and marketing strategy);
* Brand valuation for accounting (for dispute resolution and balance sheet reporting);
* Brand valuation for transactions (for mergers and acquisitions, brand consolidations and due diligence).

Another approach to classify the purpose of brand valuation is to divide them into two categories (technical and other): technical purposes category is applied more for tax planning, securitization, purchase price allocation or impairment tests and are focused on the value at a given point in time; other brand management purposes include internal communications, external growth, performance evaluation, brand licencing and budget allocation and are aimed to measure the role that brands play (Salinas, Ambler, 2008), (Haxthausen, 2009).

Secondly, as the purpose of brand valuation should be also clear for the valuator and the audience, it is important to understand who is in charge of making the choice of brand valuation method and who is interested in the brand value result. In this sense, the perspective for valuation can be the following: typical purchaser (market value), specific purchaser (investment value) or unwilling seller (liquidation value) (Heberden, 2011).

As different brand valuation methods consider different factors that lead to the final brand value, choice of suitable method can be affected by the person in charge of the process. Speaking of the stakeholders and those who will be particularly interested in the brand value, several categories should be considered. There are internal stakeholders: chief executive officer, chief financial officer and chief marketing officer who need brand value for making strategic decisions in their areas of responsibility, as well as for assessment and compensations for managers. But brand value is useful not only for company management, other players that would be interested in the brand value are:

* Investors;
* Management boards;
* Security issuers;
* Investment bankers;
* Private equity funds;
* Statutory auditors.

All of these players have their own specific reasons to make choice about brand valuation method that depends on their purpose of brand valuation. Possible examples are: the need to know the true brand value before making investment decisions (for investors and bankers); the need for a tool to monitor company’s performance and understand the impact of brand investments (for management boards); the need to enhance stock prices by having deeper analysis of intangible assets (for security issuers); the need to improve quality of credit risk analysis (for bankers), for securitization and tax planning (for auditors) etc.

Thirdly, it should be clear what the factors that influence the choice of specific brand valuation method are and what the problematic behind this process is. The first challenge is associated with the complexity of a brand that can consist of various trademarks, trade names, product formulations etc., therefore, it is crucial to get rid of all unnecessary components that can bias the final value of a brand. For companies that own one single brand, this all-inclusive brand asset is to be valued, and for a case of a company that possesses multiple brands, the brand that is in question should be purified prior to the valuation in order to avoid an ambiguous result caused by the technical issue of separating this particular brand from other brands and intangible assets. What is more, the valuator should understand characteristics of the brand itself, specifics of the market where this brand operates, industry peculiarities and availability of data for implementation of brand valuation methods. All these factors help solve the main problem associated with the choice of brand valuation method – lack of reliability and high extent of arbitrage.

Fourthly, International Accounting Standards consider that brands have an infinite economic life. Brands are created to generate future economic benefits for a company, and managers want their brands to exist as long as they bring revenues, and generally, they do not project to build up, develop and invest into brands only for a limited period of time. And here a valuator faces one more problem: all brand valuation models imply that a brand has a particular lifetime, during which it is able to create financial benefits for a firm. Meaning that, brand valuation should take into consideration life cycle of a brand, and also functional and cultural obsolescence of a branded product (Sinclair, 2011).

Fifthly, another challenge is associated with the brand discount rate. The problem of calculating brand discount rate lies within the overall complexity of the method of obtaining the accurate value. Generally, the method of calculating brand discount rate requires that the accounting value of intangible assets is represented in the financial statement of the company in question. However, the majority of companies possess in-house generated brands that are fully owned by the company and have never been bought, what leads to a very low value of intangible assets in financial reports. What is more, it leads to somewhat subjective brand values on the balance sheet, distorts comparability of companies with a different origin of the brands (in-house generated or purchased). Thus, forbiddance to include in-house generated brand “masks the full contribution brands make to enterprise wealth” (Sinclair, Keller, 2014) and decreases the value of the assets. Therefore, when valuator uses this value from the report, the brand discount rate becomes abnormally high and cannot be used to calculate a fair value of a brand (Schauten, 2008).

Due to the fact, that despite its complexity, the brand discount rate is required for each method of brand valuation, researchers state that weighted average cost of capital (WACC) can be used as a proxy for the brand discount rate. However, when valuator uses WACC as a base to arbitrary set brand discount rate, he or she risks to come up with underestimated or overestimated result, as a risk of intangible assets differs from the overall company risk, what, in turn, influences the outcome of brand valuation.

The way to overcome this issue is to use weighted average return on assets approach (WARA approach). WARA method states that WACC equals WARA, and WARA consists of four categories: net working capital, tangible fixed assets, intangible assets and tax shield. The problem of WARA is that it’s difficult to be implemented since the method requires a lot of assumptions and variables. Also, since a brand is accounted in intangible assets, return on intangible assets requires brand return rate for the method, but for the case of internally generated in-house brands, intangibles are low, what leads again to unreliable results of brand valuation (Schauten, 2008).

Sixthly, there is a time frame problem. When brand valuation methods are applied for the different number of years for different cases, valuator obtains different values for brands. However, there is no general rule on the required number of years for brand valuation, what creates a burden for accurate brand valuation, because the different number of years yields different outcomes.

Last but not least, when it comes to the factors that influence the choice of specific brand valuation method for a specific situation, the problem of subjectivity of brand valuation methods should be discussed. For example, one can argue that valuation of brands can only be performed with subjective assumptions and estimations due to the lack of inputs that can standardize the process (Otonkue et al., 2010). What is more, the valuator should understand characteristics of the brand itself, specifics of the market where this brand operates, industry peculiarities and availability of data for implementation of brand valuation methods (Buss, 2016). All these factors help solve the main problem associated with the choice of brand valuation method – lack of reliability and high extent of arbitrage.

Bearing in mind that brand valuation methods are less rigid than valuations of tangibles, introduction of ISO 10668 aims to simplify the problem of choice of brand valuation method as it suggests joint analysis of the legal, marketing and financial aspects of the brands being valued to ensure relevance and equality of all assumptions made. What is more, it provides a description of three main brand valuation approaches (cost, market and income based) and gives preference to the income approach (ISO, 2010).

Therefore, in order to simplify the problem of choice of brand valuation method, valuator should determine the purpose of brand valuation, consider the audience interested in the final value and stakeholders who are interested in the brand value, and analyse the brand itself, market, industry and availability of data to decrease subjectivity of brand valuation and choose the most suitable method that leads to the most trustworthy result in the given constraints.

## 1.4. Analysis of brand valuation methods

When it comes to the brand valuation, the three fundamental aspects should be considered: financial, strategic and customer insight. (Haxthausen, 2009). The choice of a particular aspect shapes the brand valuation procedure for a researcher. In the frames of this study, financial perspective will be considered, as the researcher is focused primarily on the economic brand valuation and the non-financial aspects will not be considered.

Financial brand valuation is a complicated procedure, and there are many methods to address it. Often they can cause a significant discrepancy between the results and targeted brand values. Even though accounting standards have been working on the acceptable methods and brand valuation technics that would be applicable for the majority of companies, they are still far from the full transparency and reliability. Intangible assets often do not have an active open market for comparison, they are hard to separate from each other, they overlap and tend to be interdependent (Abdifatah Ahmed Haji, Nazli Anum Mohd Ghazali, 2018). Not having a reliable tool leads to the lack of a feasible solution that brings a measurable fair result, and all the conclusion made after such a valuation may seem irrelevant.

Yet, there are currently existing general valuation methods that will be discussed in this section: cost based approach (summarizes historical costs), market based approach (compares target assets to similar comparable assets based on historical data) and income based approach (based on the discounted future cash flows) that belong to the same category of financial based approaches; other approaches that are also covered are research based method and real options method.

### 1.4.1. Cost based approach

Cost based method is focused on the costs incurred in the building the brand and its development, replacement or reproduction up to its current level of influence. The example of such costs would be research and development expenses, product improvements, promotions, staff costs etc. The two methods under this approach either consider historical costs of the brand development up to the moment of now or evaluate the costs of recreating the same brand today (replacement method).

*- Historical cost of creation*

As it was mentioned, in order to value the brand using historical costs of creation method one should calculate the total costs that arise during each creation and development stage of brand building. There are three types of costs to be examined under this method:

1. hard costs: materials, machines, buildings, and other tangible assets acquired;
2. soft costs: engineering and design time spent, overheads;
3. market costs: advertising and other marketing expenses that contributed to the brand image (Anson et al., 2014).

Opportunity costs should also be considered (cost of delay, for example), if the brand postpones the end benefits and has a longer payback period, what also lowers the returns. All the costs should also be considered after tax.

The formula used for the method is the following (Reyneke et al., 2014):

Historical cost of creation method is considered the most conservative method and it does not provide any outlook to the future as it estimates only historical data to calculate the brand value. It ignores inflation, and also any market-driven movements, such as a change in demand or new technologies. This method also requires a proportion of costs attributed to the brand development what can be hard to estimate and requires a review of balance sheets and P&Ls to identify expenses related to the brand. On the one hand, this approach complies with accounting standards of valuing the assets, but on the other hand, the method fails to capture value-adding operations achieved through the strategic management of a brand (Seetharaman et al., 2001).

Historical cost of creation method favours young and internally-generated brands because it is much easier to calculate their costs to compute the brand value compared to older and well-established brands that have a big history. Brands that are widely advertised can be efficiently valued with the discussed method, as they have high marketing and advertising expenses. But the valuation of brands that are successful without excessive advertising will be misleading and will bring an underestimated result. In the same way, the value of declining brands that still exercise high marketing costs will be overestimated (Kapferer, 2012).

Overall, this method is pretty basic and cannot provide a precise and fair value of a brand. It gives a floor value that can be used as a reference point, but one should not rely on this method only for a proper brand valuation (Sinclair, Keller, 2014).

*- Replacement cost method*

The replacement cost method values brands using current prices to assess the cost which would be attributed if the brand was to be recreated today (Salinas, 2009). This method includes direct and indirect costs (materials and labour, for example), opportunity costs and profits. These costs are to be adjusted to reflect the obsolescence of the brand. The formula to calculate the brand value according to this method is the following:

When one compares this method to the historical cost of creation method, one can observe that this method is based on the current costs, and thus, may look more appropriate and reliable. However, when analysed what it takes to recreate a similar brand, especially when it is a strong established brand, one may wonder whether it is possible or not.

Replacement cost method should consider multiple characteristics of a brand – awareness, market share, its image, distribution network and presence. This data will help to identify its value and time it would potentially take to recreate an equivalent brand with similar characteristics (Kapferer, 2012).

This method eliminates the issue of using outdated data for valuation and risk taken in investing and also combines benefits of the historical cost of creation method. However, it shares same disadvantages, as it cannot be a good tool to build prospects for the future, as it considers only investments, but not the value created (Salinas, Ambler, 2009). It is also more subjective and can bring different results because of different circumstances that were taken into consideration. But still, replacement cost method can be applied in a variety of ways under different assumptions.

To conclude, the two described methods are very direct and simple, however, none of them takes into consideration the future income and cannot be applicable to make future predictions. In brand valuation, cost approach would be used rarely, and it is more applicable to young brands which target a small market and rely on investing in communications. What is more, this method does not capture the value added by brand management, fails to identify all related costs and has difficulties capturing the moment of intangible assets’ moment of development. But cost approach can be helpful when there is lack of information to apply other methods and can be used as a reference point for further analysis. It can be used to compare the brand value to the number of investments in communications and marketing.

### 1.4.2. Market based approach

Market based approach and all the methods that belong to it rely on market values and prices and consider recent transactions (sales, acquisitions, etc.) that involve very similar brands to the one that is analysed as they arguably have the same value (Salinas, Ambler, 2009). The challenge of the market based approach lies within the need for adjustments to obtain comparability between assessed brands to underline differences between the brand value and the benchmark. This approach also requires a lot of data, as it needs an open market to take comparable transactions for brand valuation. Historically, market based approach is used to value intangible assets on open well-established markets, but as a strength of a brand is identified precisely by its difference from other products or brands, it is often complicated to find reliable benchmarks in terms of other brands and markets (Anson et al., 2014). Under the market based approach, transaction multiple method as the most relevant and the method of differential price-to-sales ratio will be discussed.

*- Transaction multiple method*

The main idea of this method is that the fair value of a brand will be better assessed because it uses information about recent market transactions that involve comparable brands. So the brands should be similar in terms of their strength, positioning and financial profitability. This method is the most widely used and it is also the easiest to apply (Salinas, Ambler, 2009).

In order to perform the brand valuation using transactions multiples method, the following formula is applied:

Transaction price includes transactions related to a comparable brand: they should be similar in terms of industry, strength, positioning, etc.

Related multiple can be used in a comparable approach, for example, sales, earnings before interest and taxes (EBIT), earnings before interests, taxes, depreciation and amortization (EBITDA), net income multiples. The key here is to resize the transaction price as a comparable to the economic benefits produced by the analysed brand. The example in the formula uses sales as a multiple (Anson et al., 2014).

Transactions multiple method can be applied successfully on liquid open markets, but such markets can be found very rarely, especially when one speaks about transactions related to brands exclusively. What is more, identification of the part of a price that is directly related to a brand in each transaction is very difficult, as usually transaction prices are presented with some details that may complicate the practical application of this method.

As brand markets are very unpredictable, it’s practically impossible to determine a proper comparable to the analysis, plus many premiums and discounts can be added to the price and still remain unnoticed. Another weak point of this method is that brands, being unique by their nature, are very subjective to any other assets that are selected as comparable (Clifton, Simmons, 2003). Thus, the method can be sensitive to the chosen comparative and transaction prices. However, in the circumstances when the transaction multiple method can be implemented, it can either solely value the brand or check the results of other methods.

*- Differential price-to-sales ratio method*

As the name of this method indicates, it deals with the difference in the price-to-sales ratio of two companies. The logic under this method is that between two companies the one with a stronger brand will charge a higher price premium for same products. Thus, the higher the premium is, the higher the value of the brand will be. It is important to consider that the sales volumes of the two companies are the same.

The brand value using this method will be computed using the following formula:

where

- Price-to-sales ratio of the branded company

- Price-to-sales ratio of the second non-branded company.

In order to calculate the price-to-sales ratio, the following formula is used:

where

p, pn - Pay-out ratios for a period

g, gn  - Growth rate

r - Cost of capital or discount rate

Price-to-sales ratio method allows calculating a brand value of a company by comparing to a non-branded peer. However, this non-branded peer with the same product is normally a much smaller business with a smaller sales volume, and the method assumes that both companies have the same amount of sales. This method also does not take into consideration possible benefits that a branded company has, say, stronger image, risk reduction, etc. This approach also relies on future estimates and subjective parameters as the cost of capital. But price-to-sales ratio method is flexible and can be applied to compute the brand value (Damodaran, 2014).

In conclusion, the market based approach has a limited applicability to brand valuation due to the absence of an active brand market. However, it can be used to value brands that are not unique to calculate their fair value or to value brands that involve a transaction with a similar brand in the same industry. Market based method can be also used when one can find a sufficient number of comparable transactions, or these transactions take place among independent parties (Salinas, 2009).

### 1.4.3. Income based approach

Income based approach is one of the commonly used methods for brand valuation. It is the most preferred method according to ISO 10688. Using this approach, the value of a brand is measured by computing the present value of the future economic benefits expected to be received over the remaining useful economic life of a brand (discounted cash flows approach). It considers future income, profits and cash flow generation (Salinas, Ambler, 2014).

Out of the wide range of income based approaches, the five methods will be considered in this paper: excess earnings approach, royalty relief approach, price premium approach, economies of scale approach, demand driver/brand strength analysis and EBIT comparison. Theoretically, when applied, these approaches should bring the same result. Yet when choosing between them, managers should consider industry where the business operates, related brand environment, etc. Also, different approaches can require different disclosure form accounting reports, and it is possible that they eventually bring different valuation results. Thus, a careful examination and selection of a valuation method are required prior to the brand valuation itself.

*- Excess earnings approach*

The excess earnings approach determines the excess of earnings on all the intangible assets a firm possesses. To do that, the normal returns on tangible assets are subtracted from the total rate of return. This approach is appropriate to calculate the value of brand equity. But in order to come up with the proper proportion, one needs to dive deep in the excess earnings attributable to the intangible assets, what would be done with the help of the analysists, what in turn increases the subjectivity of the method. The method is sensitive to required return on each type of asset employed.

In principle, the method is consistent with the definition of a brand that excluded the product. However, speaking of its disadvantages, one would mention that the method is subjective in determining the required return on each intangible assets. Allocation of margins to intangible assets is also subjective, as opposed to fixed margins on the tangible assets. In case of a strong brand with many tangible assets in books, the excess earnings method can undervalue the brand due to the high technical yield for tangibles (Salinas, Ambler, 2014).

*- Royalty relief approach and its variations*

This method is based on the fact that the brand value equals the present value of the future royalties’ payments that a firm saved by owning a particular brand. So the brand value equals the sum of discounted future fees the firm would have had to pay if it hadn’t owned the brand (Roberts, 2011). It calculates the brand value considering that the firm licenses its brand from a third party. This approach assumes a particular royalty rate that represents a percentage that is then applied to the expected revenues of a company to measure the portion of the revenue (royalty revenue) that consumer would not be willing to pay otherwise (Salinas, 2009).

Royalty relief method belongs can be also called “mixed” as it aims to compare licensing contracts for comparable brands to come up with a range of royalty rated what are going to be applied to future sales. Obtained income will then be attributed to the brand.

As it was discussed before, the method is based on the royalty rate that a firm would have to pay if it did not own the brand. The net present value is calculated then as a discounted sum of the royalty payments that would be saved through owning the asses.

Thus, the following formula provides the calculation of the brand value according to the method:

where

TV – Terminal value

Tax – Tax rate

Ri – Royalty rate

ri – Discount rate

Royalty relief method can provide brand value specifically for an industry. It is also attractive as it eliminates the intrinsic difficulty of estimating the profitability and risk differentials that are attributed to the brand. What is more, it is generally accepted by many authorities. However, this method does not consider the uniqueness of brands and their natural incomparability. Speaking of the royalty rate, sometimes it can give a redundant result since it includes a charge for the use of the brand and the rest of obligations of the contract. That’s why one can argue that the royalty rate cannot compute the proper brand value as it cannot isolate the required charge only, and the calculated brand value would include brand exploitation, supply of raw materials, know-how etc. (Fernandez, 2012).

*- Price-premium approach*

This approach estimates the additional profits that can be attributed to the brand by comparing the price of a branded product with the price of an identical non-branded product (Seetharaman et al., 2001). This method assumes that consumers, due to their knowledge of the brand, perceive additional qualities to the branded product and are willing to pay more for it (Aaker, 1991). The goal of this method is to measure how much more the consumer is actually willing to pay. Net profits of the brand are calculated by multiplying the volume of units sold by the price premium per unit, that is the price difference per unit between branded and unbranded products. The brand value is then the present value of all the net profits of the brand. The price premium itself can be measured in various ways through observation or through different consumer research methodologies like conjoint analysis or hedonic analysis. The advantage of this method is that it is very intuitive and easily understandable. However, since a premium price that doesn’t come with a real added value to the customer can be difficult to sustain in the long term, it is very rare to have price premiums be solely attributed to the brand (Smith, 1997). Usually, branded products display a higher quality, which can make it difficult to find comparable generic products to compare them with. In addition, the value of the brand determined by this method is only valid for the products currently carrying the brand, it does not include potential brand extensions. Moreover, a branded product does not generally translate into a price premium. This method ignores the situations when the popularity of the brand allows a company to increase the number of units sold, reducing the costs by economies of scale (Tollington, 1999). The profit will therefore increase but the value of the brand will not be reflected in the price premium.

*- Economies of scale approach (gross margin comparison)*

As it can be observed, the price premium technique only considers the revenue part of the equation and not the impact that brands can have on cost. To solve this problem and include both sides of the equation, Smith introduced the “Economies of scale method” (Smith, 1997) based on the comparison between the gross margin of the branded product and the average gross margin of comparable competitors. To calculate the brand value, gross margin difference is multiplied by the net sales of the branded products. Since the method includes the cost advantages, unlike the price premium model, it can be used as well to value brands that cannot charge a premium for their products. However, many other factors can influence the gross margin which is why the approach is not always reliable.

*- Demand driver/brand strength analysis*

This method is also known as “reasons-to buy”, and its primary focus is on the effects that brand strength has on supply and demand in order to determine the impact that this brand has on consumer’s decision making process and value creation. Analysis of demand drivers and attributes of the brand strength is considered by companies for this method. Even though this method is generally statistical, the process of determining the main drivers and analysis of their relevance is arbitrary. The execution of the demand driver / brand strength analysis requires quantitative and qualitative research, and can also use Delphi method to obtain an opinion of experts.

There are generally to ways to calculate the contribution of the brand to income and profit generation: absolute technique and relative technique.

* Absolute technique: identifies (generally subjectively) brand-related factors considered during the buying process (relative to the total number of factors), adds their frequencies but does not weight them by importance.
* Relative technique: has two options of how to apply this approach. The first option ranks every demand driver by its importance and then determines the relative perception (brand contribution) to each driver. This approach makes an assumption that the brand has an influence on the perception of every important attribute in the purchase decision. The second option determines the importance of each demand driver, having the brand also among them. The difference between these two options is that in the first one brand is considered an attribute that has an impact on the perception of other attributes, and in the second one it is not.

Overall, this method is handy to determine demand drivers that add value to the company, and it does not require any benchmark company to identify the proportion of profits attributable to the brand. However, this procedure does not require brand valuation and be conducted only by market research. At the same time, this method does not provide comparable and objective results, and demand drivers analysis is conducted using different bases, say, free cash flows or sales (Salinas, 2009).

*- EBIT comparison*

This method aims to compare operating profit (EBIT) of a branded business with those from benchmark companies. For this method, brand value is calculated as the present value of after-tax operating profit attributable to the brand in question. The advantage of this method is that it considers a wider spectrum of brand benefits, however, this approach is likely to overvalue the brand because of many other non-brand related attributes that have an impact on operating profit (Salinas, 2009).

### 1.4.4. Research based approach

This approach uses consumer research to assess the performance of a brand. This method does not have a financial value, instead, it determines the behaviour of customers and measures their attitudes that can have an influence on the economic performance of a brand. There are many sophisticated or simple models under this approach, but all of them can be characterised by the fact, that they try to collect, explain, interpret and measure consumers’ perceptions towards a brand. These methods analyse consumer behaviour: awareness, knowledge, purchase considerations, preferences, level of satisfaction with the brand. Several models also add behavioural measures such as market share and price. These characteristics are analysed to build up an overall brand equity measure. Different scores for different indicators are expected to influence consumers’ purchasing behaviour and decisions what, in turn, affect the financial value of a brand. However, internal factors about the brand are not taken into consideration, and concentrate solely on the behaviour of consumers what may not bring accurate results. Thus, research based approaches cannot provide a clear link between specific indicators and brand value. For example, a brand can be very strong according to the indicators and customer perceptions, but still be unable to create financial value.

Proper understanding, interpretation and measurement of brand value indicators are crucial for computing the financial value of a brand, as financial success of a brand depends on the way consumers behave towards it. But when these indicators are not backed up by an economic model, they provide insufficient and unreliable results about the brand value (Clifton, Simmons, 2003).

### 1.4.5. Other methods

*- Real options method*

When talking about financial assets, an option is the right to buy or sell a particular asset at a price fixed previously in time. The real options approach applies the same tools used to value financial options in order to value non-financial assets. As any financial option, it consists of a basic value and the value of the option itself. This method assumes that at the expiry of the contract, the owner of the brand has the option to terminate the brand license or renew it (Salinas, Ambler, 2009). When there are no comparable royalty rates available, the real option model can be used to quantify the royalty rate of the brand (Salinas, Ambler, 2009). Since this method includes the value of flexibility, it can be a very useful tool to help managers make decisions regarding the future of the brand. Regarding brands, there are typically two types of options: brand expansion (geographical, market segment, distribution channel) and brand extension (line, category). As a result, this method works better for industries where the options can be identified and measured easily. However, when it comes to intangible assets, the method is generally perceived as not reliable because many variables in the equation are being set approximately or arbitrarily. Thus, in practice, this approach is almost never used for brand valuation by investment bankers and consultants (Lamb, 2009).

Two different ways exist to calculate the value of a brand through the real options approach:

* The Binomial Method: Firstly, a decision tree including all options possible must be drawn. Secondly, a utility function and a probability of occurrence need to be assigned to each node. Thirdly, at each node, the branch holding the highest value must be chosen. Finally, once the end of the tree has been reached, the value can be estimated by discounting the outputs at WACC. This method is intuitive and fairly simple to understand, however, it can require a large number of calculations.
* The Black-Scholes model: the value of an option is calculated through a standard equation. The value of the option is then added to the Net Present Value of the brand without growth. This approach is a lot faster but it can be difficult to estimate all parameters of the equation.

where,

r – Risk-free interest rate

𝜎 – Implicit volatility of the underlying asset

X – Current strike price (cost of developing the brand)

S – Current market value of the underlying asset (cash flow value from the licensing contract)

t – Time to expiration

In conclusion, this method allows to split the analysis between the value of the branded business in question according to what it is worth now and its opportunity to grow in the future. Thus it removes the challenge of forecasting the brand earnings. This method is also very useful for decision making, as it associates the value of the brand with the possible uncertainty of cash flows and future growth opportunities. However, real options method simplifies the real market situation a lot, and even though it is useful to estimate share values, it is not that reliable for intangible assets.

## 1.5. Comparison of the brand valuation approaches

All the brand valuation methods discussed above have their strengths and weaknesses and can suit better or worse in different cases. The three main approaches (cost based, market based and income based) quantify the present value of future benefits associated with the brand, but they use a different perspective. Income approach forecasts future cash benefits and discounts them to the present value. Cost based approach quantifies time and efforts to recreate the resources needed to gain future benefits. Market based approach looks for similar transactions to compare future benefits. Different methods can also bring different results when applied to value the same brand. Bearing in mind that brand valuation is an estimation that depends on a set of assumptions, one can use a method that fits better to a particular case and provides a reliable result in the given constraints.

The following table represents a summary of introduced methods, indicating their advantages and disadvantages, as well as the cases when they can be applied and types of brands they suit most (see table 1). The table also provides information about other characteristics of the methods as they are considered important by the researcher.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Method*** | | ***Advantages*** | ***Disadvantages*** | ***Preferred brand type*** | ***Sensitivity*** | ***Number of parameters*** | ***Ease of application*** | ***Estimated accuracy*** |
| Cost based method | Historical cost of creation | No assumption is needed; gives an objective result for young and internally-generated brands; complies with standards of asset valuations | Conservative; provides an outdated result; requires financial audit; does not capture value-added operations associated with the brand management | Young not well-established brands | Medium | Low | Medium | Low |
| Replacement cost method | Uses current data; objective; considers multiple characteristics of the brand | It is difficult to recreate a similar brand with the same characteristics; requires financial audit; does not give prospects for the future | Sectors where brands have little barriers to enter the market | Medium | Low | Medium | Low |
| Market based method | Transaction multiple method | Simple; gives a fair value of estimation; can be applied on open liquid markets; good to value non-unique brands | Difficult to identify the brand price under the transaction price; difficult to find good comparable; general subjectivity of brands by nature | Single-branded business, active M&A | Medium | Low | High | High |
| Differential price-to-sales ration | Flexible; provides a fair value of a brand | Does not consider different sales volumes; difficult to find a comparable; does not take into consideration benefits of a stronger brand | Brands that have a very similar non-branded peers | Medium | Low | Medium | Medium |

*Table 1. Comparison of brand valuation methods*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Method*** | | ***Advantages*** | ***Disadvantages*** | ***Preferred brand type*** | ***Sensitivity*** | ***Number of parameters*** | ***Ease of application*** | ***Estimated accuracy*** |
| Income based method | Excess earnings approach | Does not require external data; conceptually sound, the return rate is assigned subjectively to the intangible assets | Subjective in terms of determining the required return; in case of valuable brands, the result will be undervalued due to the high rate of return | Single-branded business | High | High | Medium | Medium |
| Demand driver/brand strength analysis | Useful to determine the key demand drivers; does not require a benchmark company or a generic brand for a comparable; can be useful for management and strategic decisions | The results obtained are not comparable; demand driver analysis can have a different base; in case the statistical regression is applied, complex or unrealistic results may occur; may not be applicable for accounting purposes | Single brand | High | High | Medium | Medium |
| Royalty relief approach | Based on observable and objective market parameters; accepted by authorities; the result of valuation is industry specific | Does not isolate brand value properly as royalty rate includes more than one brand; only a few brands are comparable | Brands with extensive licencing activity | High | Medium | High | High |
| Price premium approach | Intuitive, easily understandable | Rare to find brand premiums solely attributed to the brand;  Difficult to find unbranded comparable | Single-branded, brands with a non-branded peer | High | High | Low | Medium |
| Economies of scale approach | Useful for brands that do not have price advantages; straightforward and easy to implement | Not reliable due to the abundance of factors that affect gross margins, can undervalue or overvalue the brand; neglects volume premium | Single-branded business, brands with a non-branded peer | High | High | Medium | Low |
| EBIT comparison | Considers a wide spectrum of brand benefits | Overvalues due to the large amount of non-brand related attributes that influence EBIT | Single-branded business | High | High | Medium | Medium |

*Table 1. Comparison of brand valuation methods (contd)*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Method*** | | ***Advantages*** | ***Disadvantages*** | ***Preferred brand type*** | ***Sensitivity*** | ***Number of parameters*** | ***Ease of application*** | ***Estimated accuracy*** |
| Research based method | | Helps gain consumer insights about the brand | Does not provide economic value of the brand, thus is unreliable | Established brands | High | Medium | High | Medium / Low |
| Other methods | Real options method | Useful for decision making and strategy; removes the challenge of forecasting brand earnings; links brand value with future growth opportunities | Based on a lot of assumptions and can lead to unrealistic results; is not good for accounting purposes; less effective when applied to intangible methods | Brand with a lot of coverage | Medium | High | Medium | High |

*Table 1. Comparison of brand valuation methods (contd)*

## 1.6. Specifics of brand valuation in international jewellery business

The current paper aims to identify most suitable brand valuation methods for the international jewellery industry. International jewellery business has been chosen by the researcher due to remarkable specifics of the business. In order to avoid any confusion associated with a segmented market with a wide range of different price categories of international jewellery brands, this paper is focused on the premium price segment, meaning that luxury jewellery category belongs to luxury goods, and is part of luxury jewellery and watchmakers market.

The luxury industry comprises a relatively small market with a limited number of companies, but it has a significant weight in terms of sales and influence (MarketLine, 2018). Luxury products have the best design, best quality, best materials, best packaging, they are rare, they convey the specific aura that makes products even more attractive to customers.

The luxury market and jewellery market, in particular, is of interest to the researcher due to several reasons: firstly, luxury market is experiencing significant growth in recent years, there is a remarkable increase in consumers, who drive the growth in luxury consumption (Ko et al., 2017); secondly, luxury jewellery companies have a very strong and desirable brands that significantly contribute to the price of goods (Frent, 2017), therefore, brand valuation is considered useful in this case to calculate the fair value of the brand; thirdly, global luxury market is dominated by large players that own large portfolio of diverse brands, thus, it is of interest to determine fair value of each brand to analyse its power and individual contribution to the performance of the company and compare brand values to the similar ones of competitors (Frent, 2017).

This section is primarily focused on the analysis of international luxury jewellery industry and describes the market, recent trends, brand valuation challenges and applicability of brand valuation to the industry, answering research questions: what are the problems of brand valuation in international jewellery business? What are the brand valuation methods that provide fair brand value for international jewellery companies?

### 1.6.1. Determining brand value and brand equity in international jewellery business

Section 1.1. of the current study already mentioned the terms “brand value” and “brand equity”. This section is primarily devoted to the clarification of these terms specifically for the jewellery business.

Brand equity attempt to define the relationship between customers and brands. Understanding the importance of this concept, scholars nevertheless, could not come to a unified conclusion for this term. In order to simplify the variety of approaches that can be used to define brand equity, the following classification can be suggested: brand equity is: 1. the total value of a brand as a separable asset – when it is sold, or included in a balance sheet; 2. a measure of the strength of consumer’s attachment to a brand; 3. a description of the associations and believes the consumer has about the brand (Wood, 2000). The first of these definitions refers to the brand value and will be covered further. As for the second two definitions, they are often referred to as “consumer brand equity” and tend to mean brand loyalty and brand description. Brand equity can be also described as “the set of associations and behaviour on the part of a brand’s customers, channel members and parent corporation that permits the brand to earn greater volume or greater margins than it could without the brand name” (Leuthesser, 1988).

The three important components of brand equity are awareness, loyalty and quality perception. For international jewellery business, these three components play a crucial role, as they are considered by managers to build up a successful strong brand that will be recognized globally. Brand awareness means that consumers are aware of the product and when asked to name brands that belong to the same category, will be able to name it. The levels of brand awareness are dominant, top-of-mind, recall and recognition, with the dominant being the most desirable. Many of jewellery brands are proud of their long history, exclusive quality and exceptional jewellery pieces that aim to increase their brand awareness.

Brand loyalty, in turn, can be classified into five categories: non-users, price switchers, passively loyal, fence setters and committed clients. Due to the fact that purchases of jewellery pieces are usually done for a specific occasion, many jewellery brands have a large clientele of loyal clients, who prefer one particular brand would return to buy additional items later on. Specific focus is always put in building and maintaining customer loyalty that would last for many years.

Perceived quality has to do with the price premium, as customers are willing to pay more for a product when they believe in its high quality. Bearing that in mind, jewellery companies produce high-end quality pieces and using marketing campaigns leverage their brands and increase the perceived value of their goods even further.

On the top of the three mentioned components of the brand equity, it is crucial to add the emotional component associated with purchases of jewellery pieces. The majority of the purchases are done for a specific purpose – engagement, wedding, anniversary, birthday etc., for a very special moment for the client. Therefore, jewellery brands aim to sell symbolic and magic powers, invite well-known designers to develop limited collections, emphasize exceptional quality, country of origin, present themselves as art, highlight exclusivity – and thus build a deep emotional connection with a big number of clients (Kapferer, 2012). One can conclude that brand is the main vehicle for connecting with a consumer, and symbolic universe that jewellery brands create around their products is a way to reinforce the loyalty (Godey et al., 2012).

Moving to the second part of the section – brand value, it is important to demonstrate how consumer and financial approaches are connected. It is illustrated with the figure 2, where brand assets are sources of influence of the brand, brand strength is the brand equity outcome, measured by the size of the market share, market leadership or price premium. And brand value is the ability of brands to generate profit – the actual economic value of the brand. Brand value is a profit potential of brand assets, mediated by brand market strength (Kapferer, 2012).



*Figure 2. From awareness to financial value (Kapferer, 2012)*

Brand value, as it was earlier discussed, is a financial estimation of all the components that form the brand. It goes without saying that brand valuation for different industries should be conducted differently as a brand itself plays a different role in, say, construction industry or fashion apparel. The next section highlights the specifics of international jewellery business that impact the choice of brand valuation method and the valuation process as a whole.

### 1.6.2. International jewellery business: industry analysis

Generally, literature defines luxury brands based on consumer perceptions. Luxury can be described as a set of special attributes, including the following: maintenance of a premium image, creation of intangible brand associating, align with quality, logos, symbols, packaging are drivers of brand equity, secondary associations with linked personalities, events, countries, and other entities, controlled distribution, premium pricing strategy, carefully managed brand architecture, broadly defined competition, and legal protection of trademarks (Berthon et al., 2009). A luxury brand should have exceptional quality, offer authentic value via desired emotional benefits, have a prestigious image built on craftsmanship and service quality, be worth of high prices and be capable to inspire a deep connection to clients (Ko et al., 2017).

Jewellery business together with watchmaking business belongs to the hard luxury market. Over the past years, the market is showing a moderate growth, and reached a value of $540.4 billion (MarketLine, 2018). The industry is highly concentrated due to the substantial entry barriers and is dominated by large specialized groups: Richemont, Swatch Group, Chow Tai Fook, Tiffany & Co, etc. The most remarkable challenges that affect brands of the companies in this industry are the grey market and counterfeit products, environmental and societal concerns, and low switching costs and changing consumer preferences. Therefore, one of the main strategies that companies undertake in order to overcome these challenges is to put more efforts in marketing, advertising and brand building (Kim, 2016).

The jewellery market is segmented according to the price and materials. The more detailed information is presented in figure 3. Fine jewellery lies within the price range between $400 and $50 000, and pieces are mainly made out of gold, platinum, other precious metals, and uses precious gemstones; Bridge jewellery comprises medium price range $100-400, and uses gold, silver, and non-precious metals, as well as lower prices gemstones. Costume jewellery is priced under $100 and represents non-precious metals and stones. Unbranded jewellery constitutes the major part of jewellery market due to the lower prices, but branded jewellery is expanding thanks to the wider establishment of such brands as Cartier, Bulgari and Tiffany & Co.



*Figure 3. jewellery market segmentation (Kim, 2016)*

Speaking of recent trends, one should mention the high concentration of the industry that remains stable due to high entry barriers and vertical and horizontal integration of existing companies. New brands may appear, but mostly under collaboration with existing players. China will maintain its position as the largest luxury goods consuming nation, thus hard luxury brand will further expand to the Asian region, but will experience competition from local Chinese and Hong Kong companies. Hard luxury brands are also going online, many jewellery companies are opening their e-commerce stores (Kim, 2016).

### 1.6.3. Role and problems of brand valuation in international jewellery business

It is difficult to underestimate the role of brand valuation when it comes to luxury goods, where brand image, brand message and strong associations with the brand account for a significant part of the price of a piece. Consumer purchase of luxury items is mostly driven by the clear brand identity, emotional aspiration, brand signature, price levels and selective distribution. All the components of a luxury brand are in figure 4.



*Figure 4. Components of a luxury brand (Fionda, Moore, 2009)*

All these aspects contribute to the perceived exclusiveness of items, product integrity and craftsmanship, and in this sense, the brand value becomes a key to higher margins. It can be illustrated well with the specific feature of luxury brands. Most expensive and precious items of luxury companies command exceptionally high prices, however, in the majority of cases these masterpieces will rarely be sold. Such attributes of luxury market as haute couture fashion show or production of jewellery pieces with enormous precious stones can even be unprofitable for a company. However, these features are crucial for building a specific aura associated with a luxury brand. Sophisticated brand building and marketing technics add value to the brand and increase its competitiveness, making goods even more desirable. So firstly, companies focus on building a strong and desirable brand, and then, using brand extension strategy produce more affordable and accessible products that drive the majority of sales. Based on that, luxury companies have a specific client base: high-end customers, who are less price sensitive and are less affected by economic changes, and middle-class customers, who generate smaller sales individually, but account for a bigger and wider customer base, generating larger share of sales, comparing to high end consumers (Frent, 2017).

However, it is also critical to mention that emphasis on the brand building is a crucial process not for luxury jewellery companies exclusively. Jewellery brands representing lower price segment, like bridge jewellery and costume jewellery, are also concerned with their brand image, as associations with the brand, a story that the brand tells and emotions that arise around the purchase are relevant for companies operating in the lower segment as well.

Prior to the discussion on the challenges of brand valuation, it is important to highlight the brand management of luxury brand. For example, there is a necessity to protect clients form non-clients by building high entry barriers for those who are not invited in the luxury world. Prices, selective distribution and aesthetic dimension of the products serve this purpose (Kapferer, 2017). Beside that, luxury brands do not respond to the rising demand, use advertising not to sell, but to tell the story, and raise prices to increase demand even further.

When it comes to pricing, there are no discounts or price reductions, as luxury brands have to support their exclusive image, and price increase leads to even higher demand. What is important in the context of this paper, is the price premium that luxury brands charge. The idea here is the following: the brand builds up an aura of exceptionally high price of an item and tries to create an image that presumed price is even higher than the actual price. Even despite the fact that luxury brands use finest materials for their pieces, price premium can be up to 400 percent compared to the non-branded peers (Worthy, 2016).

Section 1.3. of the paper analysed problems that can arise when a brand is valued. Issues associated with the complexity of brands by nature, assumptions that can bias the end result, brand life cycle, brand discount rate calculation and time frame were discussed. When it comes to specific challenges that can complicate brand valuation of international jewellery companies, several additional problems should also be covered.

To build up a model of brand valuation and successfully execute the procedure, valuator requires a lot of specific data about the company. Most of information is presented in financial statements, but there is still a need to conduct additional research to find all required values. The challenge here arises from the fact that majority of luxury jewellery companies are private and their financial data is not disclosed, and access to obtain it is very limited. Cartier is an example of such a company. What is more, due to the fact that majority of jewellery companies have in-house generated brands that are owned by the company, one can encounter a particular challenge with the identification of value of intangible assets. According to International Accounting Standards internally generated intangible assets, and brands belong to them, too, do not appear on a balance sheet, what significantly complicates identification of the brand discount rate. Intangible assets can appear on a balance sheet as long-term assets when they have a limited lifespan, however, as it was previously discussed, companies are not interested in building brands with a finite life cycle, and thus they will not add their brand to the category of long-term assets.

Another problem of brand valuation is that many luxury companies acquire many brands under their name, and it is very difficult to separate the desired values of the brand in question to perform the brand valuation. For example, Richemont has several brands under the house name: Vacheron Constantin, Purdey, Baume & Mercier, Jaeger-LeCoultre, A.Lange & Söhne, Cartier, Officine Panerai, IWC Schaffhausen, Piaget, Lancel, Alfred Dunhill, van Cleef &Arpels, Montblanc, Chloé, Azzedine Alaïa, Roger Dubuis, Peter Millar, Giampiero Bodino (Richemont, 2018).

Horizontal integration of many luxury brands can also be a challenge for brand valuation. For example, Hermes or Michael Kors has a very wide product portfolio that includes apparel, leather goods, perfumes, and jewellery. It creates a problem for a valuator when he or she is valuing the brand and wants to focus on the jewellery specifically because there is a need to sort out attributes that comprise jewellery brand exclusively and gather data that doesn’t intersect with the brand value of other product categories.

Overall, luxury goods industry and especially jewellery business within it is characterised by a set of specific features that influence brand valuation. They are presented in the figure 5. It is important to mention that other industries have different specific features that should be analysed separately, and the ones identified by the researcher ca not be applied for other industries. Taking into account the importance of brand valuation for jewellery companies with exceptionally strong brands, a valuator should analyse existing brand valuation methods to choose most applicable ones to obtain a fair brand value.



*Figure 5. specific features of jewellery brands that influence brand valuation*

### 1.6.4. Applicability of brand valuation methods in international jewellery business. Conceptual research model

The analysis of the different theoretical brand valuation methods (section 1.4.) has allowed seeing that none of them is perfect since they all have particular perks and flaws. Some of them are more adapted than others in specific situations, which is why those approaches should be adapted and fine-tuned for the international jewellery business. As every other industry, it has its own specificities, especially considering the fact that it is a very high-end and ancient market dominated by historical players where added value associated with a product is very high. Now that there is a general perspective on the various brand valuation methods and on specific features of the industry, each of them should be fairly reviewed regarding this particular business.

As it was established earlier, the historical cost approach becomes less and less relevant the older the brand is. Indeed, the more one travels back in time, the more it becomes particularly difficult to determine which costs can truly be associated with the brand itself and not with the whole products (Kapferer, 2012). Furthermore, when the brand is extremely old, should the costs since its creation be taken into account or should the method be restricted to a certain timeframe? The historical cost approach raises too many issues by itself, and especially for older brands. Regarding jewellery, the research is dealing with a very traditional industry that is supported by a strong history. If one takes a look at the top jewellery brands in the world (table 2), it can be noticed that they are all extremely old, most of them even dating back to the 19th century. Thus, the historical cost approach truly appears as irrelevant since it might not even be possible to trace back all those costs and, even if it was possible, too many uncertainties would arise and make the calculation impossible. Similarly, the replacement cost method also seems out of touch with the jewellery business because history plays a huge role in the reputation of those brands. All the most famous jewellery brands in the world are extremely old and are acknowledged for their longevity and for their *savoir-faire* that has been passed along for generations, which is why it does not make sense to try and evaluate the costs of rebuilding those brands today. A jewellery brand created today might be able to compete on the lower end of the market for cheap jewellery but it would definitely struggle on the premium segment and never be perceived as well as the historic craftsmen of the industry. Therefore, both the historical cost and the replacement cost methods are not suited to evaluate the brand value of jewellers.

|  |  |
| --- | --- |
| ***Brand name*** | ***Created in*** |
| Chaumet | 1780 |
| Mauboussin | 1827 |
| Tiffany & Co | 1837 |
| Cartier | 1847 |
| Boucheron | 1858 |
| Chopard | 1860 |
| Piaget | 1874 |
| Bulgari | 1884 |
| Mikimoto | 1893 |
| Van Cleef | 1896 |
| Buccellati | 1919 |
| Harry Winston | 1932 |
| Graff | 1960 |

*Table 2. Date of creation of most famous jewellery brands*

For the market based approach to be applicable, there must be enough recent comparable transactions available. So, for the same most famous brands that were just analysed, research was conducted to see whether they were the object of a merger or an acquisition in recent years (see Table 3).

|  |  |
| --- | --- |
| ***Brand*** | ***Recent Acquisition (<30 years)*** |
| Chaumet | Acquired by LVMH in 1999 |
| Mauboussin | No |
| Tiffany & Co | No |
| Cartier | No |
| Boucheron | Acquired by Kering in 2000 |
| Chopard | No |
| Piaget | Acquired by Richemont in 1988 |
| Bulgari | Acquired by LVMH in 2011 |
| Mikimoto | No |
| Van Cleef | Acquired by Richemont in 1999 |
| Buccellati | Acquired by Gansu Gangtai Holding in 2016 |
| Harry Winston | Acquired by The Swatch Group in 2013 |
| Graff | No |

*Table 3. Recent acquisitions of the most famous jewellery brands*

As it can be observed, only 7 of them have been acquired in the past 30 years, and only 3 of them in the past 10 years (Bulgari, Buccellati and Harry Winston). For luxury jewellery brands, this is by far too few transactions to work with to adopt a market based approach. Taking a closer look at lesser-known jewellery brands, there are many acquisitions taking place as part of the consolidation of the industry by large conglomerates. For example, Chinese giant Chow Tai Fook, the world’s largest jewellery in the world, acquired US-based jewellery company Hearts on Fire in 2014 in order to enlarge their gemstones offering (Ap, 2014). This case can be a good example to apply transaction multiples method. This method is simple and straightforward, it can give a fair brand value as a result of calculations, and can be applicable for valuation of non-unique brands, and jewellery brands are not unique. Thus, when looking closer at jewellery brands, the market based approach could be a good starting point, and it appears relevant for valuation. However, another method under market based approach – differential price-to-sale ratio cannot be used, as it requires a very similar non-branded peer for the brand in question, and jewellery industry does not have such a company that would be very similar to other luxury jewellery brands, but still stay unbranded.

The price premium approach would intuitively be the most relevant concerning the jewellery business as prices are exceptionally high. Nonetheless, it is not applicable for two reasons. Firstly, there are no “unbranded” luxury jewellery, all the premium products on the market are branded and the only unbranded jewellery are the low-end ones. It is not possible to compare jewellery branded products with non-branded as they are not competing in the same market segment. Secondly, the approach requires generic products to be used as a comparison, and the jewellery business takes particular attention in not creating generic products. Each of the pieces from the most famous luxury brands is intended to be unique pieces of art, with two collections per year (Dauriz et al., 2014), and they all have specific characteristics deeply linked in their brand and cannot be compared to products from other brands.

Real options method should be dismissed, too, due to several reasons. Firstly, it is based on too many assumptions and requires too many variables and can lead to an unrealistic result. Secondly, this method implies that a company in question has a clear scenario for the future and a business plan developed to bring this scenario to life. Example for this case would be a plan of a particular company to expand to a new country. But this method cannot be used, as international jewellery companies already operate in many regions and do not follow one particular narrow scenario in their activities.

Economies of scale method is not adequate for the given case, since it is based on the comparison of gross margin of the branded product and a non-branded comparable competitor, and as it was previously discussed, there is no “unbranded” luxury jewellery. Beside that, this method is useful for brands that cannot charge a premium for their products, what is the opposite of jewellery business. Thus, this method can overvalue or undervalue the brand, and cannot give a fair brand value for jewellery companies.

Speaking of research based approach, it should be neglected as well, as it does not provide a financial model for brand valuation, what is the goal of the paper. Even though this method is very attractive in terms of gaining insights about consumers, their attitudes, behaviours and purchasing decisions when it comes to jewellery, within the given objectives, research based approach can be used only to gain general understanding about the topic, as it will not be useful for solving the problem of the thesis.

Those approaches (historical cost of creation, replacement cost, differential price-to-sales ratio, price-premium, research based method, economies of scale method) can already be dismissed when doing the valuation of luxury jewellery brands by the inherent characteristics of the industry. Other methods within the income-based and market-based approaches have the potential to be relevant, as they focus more on the brand-specific metrics what will be relevant for the second chapter of the paper, and they also analyse the brand environment what is extremely important in the international jewellery industry. Thus, these methods should be considered in the realm of possibilities.

Based on the analysis of existing brand valuation methods and their applicability to the specifics of international jewellery business, the conceptual model of the research was developed (figure 6). This model represents the logic of the research, and includes the following hypotheses:

1. Transaction multiple method does not provide a fair brand value for international jewellery companies;
2. Excess earnings method does not provide a fair brand value for international jewellery companies;
3. Royalty relief method does not provide a fair brand value for international jewellery companies;
4. EBIT comparison method does not provide a fair brand value for international jewellery companies;
5. Demand driver method does not provide a fair brand value for international jewellery companies.

These hypotheses will be tested in the second chapter by the implementation of selected brand valuation methods for cases of international jewellery companies.



*Figure 6. Conceptual model “Choice of brand valuation method in international jewellery business”*

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In conclusion, the first chapter of the current study discussed importance and aim of brand valuation, analysed brand valuation methods and outlined main problems associated with brand valuation. As existing academic literature does not discuss the problem of brand valuation in the international jewellery business and there are no existing studies on this topic, international luxury jewellery business was chosen by the researcher, since this industry is of interest due to the specifics associated with the strong brand component, and industry analysis proved this point. After role and problems of brand valuation in international jewellery business were identified, the researcher analysed the applicability of presented brand valuation methods to specific features of jewellery companies. Based on this analyses, several hypotheses about the identification of fair brand value using suitable brand valuation methods were stated.

# 2. Empirical study on the choice of brand valuation methods in international jewellery business

The primary goal of the research is to is to identify brand valuation methods that comply with the constraints set by the specifics of brand valuation for the international jewellery business. The first chapter presented the analysis of brand valuation methods and analysed the applicability of these methods for international luxury jewellery companies. Out of this analysis, several methods were selected. Their applicability will be analysed in this chapter by the implementation of these methods to identify the brand value of selected companies: Tiffany & Co, Pandora and Chow Tai Fook, by conducting sensitivity analysis and by comparing brand values with a benchmark and ceiling brand value. The result of the empirical study, presented in the third chapter, will serve as a basis for recommendations concerning fair brand valuation of international luxury jewellery companies.

## 2.1. Research design

In general, research design is an overall strategy that researcher follows in order to present a particular research project in a logical way. It can be classified into exploratory and conclusive. The exploratory research design is usually applied for situations, where there is limited information about the problem, and there is a need to explore new concepts and materials to build up hypotheses for further research. Exploratory research is convenient for the flexible and unstructured research process. As for conclusive research, it is applied for cases, where existing relationships should be tested by hypotheses, and information is generally given in structured and formal way. Results of this research can then be analysed using quantitative methods (Malhorta, Birks, 2007).

For the current study, based on the goal of the research and research questions, the conclusive research design was chosen. The objective of conclusive research design is to measure some phenomena based on already existing data, and for the case of this paper applicability of existing brand valuation methods will be tested with the actual brand valuation of particular jewellery brands. What is more, conclusive research design usually uses a quantitative method to analyse data, and this study calculates financial values of brands using five different methods and tests them by conducting sensitivity analysis, and by comparing values with a benchmark and the brand ceiling value. In conclusion, this paper identifies methods that fit the international jewellery industry and suggest the guidelines for managers.

## 2.2. Research method and methodology

The next step is the definition of empirical methods to be implemented for the study. The most common research methods are quantitative and qualitative, and in order to stick to the logic the researcher followed while identifying research design, a quantitative method will be chosen for this study. However, it is also important to mention that this paper has elements of qualitative research, too, as specifics of the international jewellery business and applicability of brand valuation methods for this industry were identified with the help of literature analysis.

The bases of the quantitate research of the current paper is the calculation of the brand values of selected companies. The first chapter provided description and formulas to be applied to carry on brand valuation for each method. Secondary data was used to collect necessary numbers required for calculations. Annual reports of Tiffany & Co (Tiffany, 2018), Chow Tai Fook (Chow Tsi Fook, 2018) and Pandora (Pandora, 2018) were used. Information from such sources, as Reuters, IMF, RoyaltySource etc. were also used to obtain crucial values for calculations. They are further explained in sections 2.4. Preliminary calculations and 2.5. Brand value calculations. Due to the fact that each brand valuation method requires specific data for the calculation of the brand value, all the details of computations are presented in the following sections. Similar methodology was applied, for example, in the paper of Maria Ruiz Garcia (Garcia, 2017).

## 2.3. Justification of the chosen sample

Since the study aims at identifying brand valuation method that would be suitable for international luxury jewellery business, three companies representing this industry were selected: Tiffany & Co, Chow Tai Fook and Pandora. The researcher limited the sample to the three companies and in order not to produce additional bias associated with a very large sample since it is harder to select the brand valuation method that would fit the most and that should be adopted by other companies from the industry if there are too many resources involved. The chosen sample meets the requirements of efficiency, representativeness, reliability and flexibility, and obtains a sufficiently accurate results (Kothari, 2004).

Non-probability sampling was used; all items were selected deliberately by the researcher. The next subsections justify the choice of these three companies and explain why they are considered to be the most representative examples of international jewellery business.

Overall, Tiffany & Co, Chow Tai Fook and Pandora were selected because of several factors: all of them represent jewellery business with only one brand within the company; all of them are publicly listed and financial data about these companies is available; these companies are leaders of the industry and have a strong well-known brand. This sample is considered representative by the researcher, as these companies represent different regions (America, Asia, Europe), have a very strong international presence, sell versatile products and put a lot of effort into the development of their brands. What is more, these three companies represent different price segments: Tiffany & Co and Chow Tai Fook represent the top segment of fine jewellery, and Pandora belongs to a slightly lower segment of bridge jewellery.

### 2.3.1. Tiffany & Co

Tiffany & Co is an American luxury jewellery and speciality retailer. For more than 175 years the company has been a synonym for luxury and style. Tiffany’s “blue box”, watches, jewellery and precious items comprise a strong globally recognized brand with a long and rich history. Tiffany & Co belongs to the top luxury companies in the world, with the “Tiffany” brand always being among best and strongest ones in the world. Interbrand (Interbrand, 2017) ranked Tiffany & Co number 81 among Best Global Brands 2017, and Brand Finance (Brand Finance, 2018) ranked the company number 377 among 500 Global Brands in 2018.

A strong well-established and in-house grown brand of Tiffany is of interest to the researcher. Tiffany & Co has only one brand in the company, what makes brand valuation easier and more precise, as there is no need to split brands and identify revenues associated exclusively with one of them and calculate individual value of each of them under the family brand name (unlike the case of Richemont, for instance (Richemont, 2018).

In addition to that, in recent years Tiffany & Co suffered from falling revenues and profitability in a majority of its segments. The company has been losing its market share, especially among younger customers (McFarland, 2017). Thus, it is extremely useful to value Tiffany & Co brand in order to see whether the brand value was affected by these events.

Tiffany & Co is a public company, but somewhat abundant available information does not always provide reliable data and brings ambiguous results when it comes to brand valuation of Tiffany’s brand.

Speaking about the recent events of Tiffany & Co, in 2017 the group picked Lady Gaga to become the brand ambassador for the fashion jewellery collection Tiffany HardWear. Also in 2017 Tiffany creates a new position in the company CAO – Chief Artistic Officer, and appoints Reed Krakoff to it. CAO will be responsible for the brand design and artistic direction of the company, and will also be responsible for conveying the message through stores, e-commerce and marketing.

These recent events of Tiffany & Co support main current strategic focuses of the company. Firstly, Tiffany is intensifying its efforts in enhancing resonance with young customers by ramping up innovations and digital efforts. As it was briefly mentioned before, Tiffany & Co is suffering from a market decline due to the decreasing interest of millennials in the US, the main market for Tiffany. Thus, the company is putting additional efforts to accompany new jewellery collections with catchy digital campaigns on different social media platforms, mainly on Facebook, Instagram, Snapchat and Twitter. Secondly, Tiffany is intensifying its online presence, as the company realizes that more and more sales are being done via the e-commerce platforms and the company has to keep up with the growing trend because of potential opportunities to increase sales (McFarland, 2018).

Overall, being a public company that is one of the leaders in the luxury jewellery market, Tiffany & Co was selected by the researcher to value its brand.

### 2.3.2. Chow Tai Fook

Chow Tai Fook Jewellery Group operates as an investment holding company, which is engaged in the luxury jewellery business through its subsidiaries. The company’s primary markets are China, Hong Kong and Macao. It has over 2300 points of sales and 62 boutiques in the regions of its presence. Being a leading jeweller in the region, Chow Tai Fook was established in 1929 and is headquartered in Hong Kong (Forbes, 2018).

The key products of the company are pendants, rings, necklaces, watches and wedding gifts that represent mass luxury and high-end luxury jewellery products using gemstones, platinum and gold for production. The key competitive advantage of Chow Tai Fook that helps it stand out from many competitors is the strong iconic brand of Chow Tai Fook and the long-standing history of the company. Chow Tai Fook brand is widely recognized for its authenticity, elegance, style and trustworthiness, and all the jewellery pieces are known for exceptional quality, sophisticated design and value that they convey (De Beers, 2018).

Chow Tai Fook has an extensive retail network with over 2000 outlets in Asia. Besides China, Hong Kong and Macao, the company is present in Taiwan, Singapore and Malaysia. The company is vertically integrated, what is generally a big advantage for jewellery brands, as it gives control of the quality of raw material procurement, and helps keep design, production, marketing and sales at the equal exceptional quality. In the case of Chow Tai Fook, the company is in control of all the processes starting from diamond mining to jewellery retailing (De Beers, 2018).

In 2014, Chow Tai Fook acquired the US-based brand Hearts of Fire to enlarge their gemstones offering (Kim, 2016), but as Hearts on Fire represent only 1% of the company’s revenues, results of Chow Tai Fook will be considered as a single brand. Subsequently, in 2016, the company opened its first Chow Tai Fook branded point of sales in the USA (Chow Tai Fook, 2017) and announced the inauguration of 12 more shop-in-shops in department stores across the USA and Canada. Speaking about other recent events, also in Chow Tai Fook opened 65 new jewellery stores in Mainland China and unveiled “A Heritage in Bloom”, a 507,5-carat rough diamond that company acquired in 2010.

Chow Tai Fook undertakes various promotional events aimed to strengthen the brand and expand the clientele base. For example, the company organizes private previews of extremely valuable jewellery pieces or fashion events. The company also puts efforts in attracting younger generations by video marketing campaigns and expansion in online and mobile (Kim, 2016).

Chow Tai Fook was selected by the researcher for the current study because this company is another public luxury jeweller that is proud to have an exceptionally strong and recognized brand. What is more, the company is a leader of the Asian region, one of the fastest growing in the world.

### 2.3.3. Pandora

Compared to Tiffany and Chow Tai Fook, Pandora is a fairly recent player in the jewellery business since they were founded in 1982 in Copenhagen, Denmark. The mission of Pandora is to sell high quality, hand-finished, contemporary, unique and personal jewellery at rather affordable price (Pandora, 2017). The key product of the company is the charm bracelet concept, which earned the company a lot of success since its release in 2000, but Pandora also sells bracelets, rings, earrings, necklaces and pendants, and is actively trying to promote those segments in order to balance their portfolio.

Through its 7800 points of sales - which include more than 2400 concept stores - the company that started as a small local jeweller is now a force to be reckoned with in the industry and sells its products in over 100 countries. To achieve such a growth, the company has had remarkable financial success over the past decades, including in the last five years (2013-2017) where the company reported a double-digit growth of its sales every single year.

As a result, the Pandora brand has become growingly famous worldwide. In 2017, Brand Finance ranked it 26th in the world top 50 most valuable apparel brands (Brand Finance, 2017), in front of a much older jewellery brand like Bvlgari for example, and credited the brand with a 42% increase in brand value over the past year.

Moreover, the company has a very ambitious vision for the future as they predict a huge increase in their sales in Latin America in Asia. In 2017, the company settled an office in Panama to establish a hub for their Latin America markets and opened 34 concept stores on the subcontinent. During the same year, 58 additional concept stores were open in China in order to further their expansion in the country, and a first concept store was opened in India.

This geographical expansion has been made possible by the vertical integration of the company which opened up two of the world’s largest crafting facilities in Thailand as well as an innovation centre. This allows them to be very agile in their product development and launch new jewellery in as fast as 4 months to respond to new upcoming trends on the market. This allows Pandora to maintain its target of seven product launches per year, a number that is expected to rise to ten new products a year by 2022. In 2017, Forbes even ranked it in its top 100 list of most innovative companies in the world (Forbes, 2017). Those regular new releases are critical for the company as it helps to attract customers even when sales start becoming saturated.

Pandora was selected by the researcher because it is a young and ambitious brand and one of the biggest jewellery brand success stories of the last 30 years.

## 2.4. Preliminary calculations

Having now information about the chosen sample for brand valuation, this section aims to introduce preliminary calculations, describe necessary assumptions and provide general information that applies to each brand valuation method and should be considered prior to valuation itself. As it was previously discussed, it is important to identify the purpose of brand valuation prior to the calculations of the brand value. For this research, the purpose of brand valuation is brand management activities.

### 2.4.1. Currencies and WACC calculation

*- Currencies*

Initially, currencies of the annual reports and currency at which the selected companies are publicly traded was in the US Dollar for Tiffany & Co, Hong Kong Dollar for Chow Tai Fook and Danish Krone for Pandora. However, in order to avoid any complication associated with different currencies and provide comparative results, the researcher converted all the values in US dollars for the exchange rate from the 1st of January 2018. Thus, the exchange rates are the following:

1 HKD = 0,12792 USD

1 DKK = 0,16139 USD

*- WACC*

Since the expected return on intangible assets is very difficult to determine, especially regarding companies that have in-house generated brands not appearing in their balance sheet, the WACC (Weighted Average Cost of Capital) will be used as the base brand discount rate for the calculations. The brand discount rate is usually considered to be higher than the WACC, the WACC is a good proxy to establish conservative estimates. To calculate the WACC, four parameters first need to be determined: the market capitalization, the cost of equity, the net debt and the after-tax cost of debt.

*Market Capitalization*

Since the three companies that are being studied are publicly traded, the market capitalization is the official value of their stock on the stock market (Reuters, 2018).

*Cost of Equity*

The cost of equity was computed using the CAPM (Capital Asset Pricing Model) which is the most commonly accepted method. The formula is as follows:

where

Ce - Cost of equity

rf - Risk-free rate

β - Company beta

rm - Market premium

For the risk-free rate, the 10-year bond rate (Investing.com, 2018) from the respective home countries of the three companies was considered: The United States of America for Tiffany, Hong Kong for Chow Tai Fook and Denmark for Pandora.

The market risk premium was calculated by weighting the respective market risk premium of each reportable segment (Damodoran, 2018) by their share of the total sales of each company. The details of the calculations can be found in the appendix.

The respective beta of each company was extracted from calculations based on the stock market (Reuters, 2018).

*Net Debt*

The net debt of each company was extracted from their respective 2017 annual reports.

*The after-tax cost of debt*

The after-tax cost of debt was calculated using the following formula:

where

Ce - After-tax cost of debt

I - Interest expenses

D - Debt

t - Tax rate

The interest expenses and debt were extracted from the 2017 annual reports of each company.

The tax rate corresponds to the official corporate tax rate in 2017 in the home country of each company (TradingEconomics, 2018) and can be found in the appendix.

After determining those four parameters, the WACC of each company can easily be computed using the following formula:

where

Em - Market capitalization

Ce - Cost of equity

Dn - Net debt

Cd - After-tax cost of debt

WACC calculations for Tiffany & Co, Chow Tai Fook and Pandora are presented in the tables 4,5 and 6 respectively.

*- Tiffany & Co*

Tiffany & Co’s WACC equals **12,27%.**



*Table 4. Tiffany & Co’s WACC calculation*

*- Chow Tai Fook*

Chow Tai Fook’s WACC equals **7,17%.**



*Table 5. Chow Tai Fook’s WACC calculation*

*- Pandora*

Pandora’s WACC equals **5,87%.**



*Table 6. Pandora’s WACC calculation*

### 2.4.2. Estimation of the evolution of the statement of earnings

The time frame considered for the different calculation methods span on the next five years (2018-2022). The financial results of each company for the next five years were predicted using two methods. For the first two years (2018 and 2019), the broker’s consensus view on the evolution of net sales was considered (Reuters, 2018). For the last three years (2020 to 2022), a perpetual growth rate was applied to estimate the evolution of net sales. All other financial metrics were then determined accordingly by keeping the average proportions over the past three years (2015 to 2017). Since the main markets of luxury jewellery are advanced economies, the GDP growth of advanced economies (IMF, 2018) was considered as the perpetual growth rate. Detailed information is presented in tables 7,8 and 9.





*Table 7. Tiffany’s Statement of Earnings (2015-2022)*





*Table 8. Chow Tai Fook’s Statement of Earnings (2015-2022)*





*Table 9. Pandora’s Statement of Earnings (2015-2022)*

## 2.5. Brand value calculations

The following section presents calculations of the brand value of Tiffany &Co, Chow Tai Fook and Pandora using five brand valuation methods that were described earlier. These calculations are done in order to test hypotheses associated with the applicability of these methods for jewellery companies.

### 2.5.1. Transaction multiple method

Application of transaction multiple method requires information about recent market transactions that involve similar jewellery brands. For this case, recent acquisitions of international luxury brands that occurred in the past 10 years were selected. More detailed information about these transactions is presented in table 10.



*Table 10. Recent acquisitions of international luxury brands*

For each of the examples presented in table 10, the value of the brand at the transaction time was extracted from the annual reports of acquired companies. According to the accounting standards, in case of the acquisition, the acquired brand is presented at its fair value, thus brand value at transaction time is the actual brand value of the company for the year of the transaction. What is more, all companies that were the target of the acquisition are single-brand companies. Target sales at acquisition are the company’s sales for the year of acquisition taken from the annual reports, and implied sales multiple for the transaction time is calculated as the result of brand value divided by the sales at acquisition. The median value of the multiples is 1,10, the median high range of 1,38, low range is 0,54. These values were used for brand value calculation of selected companies. High range value was applied for the case of Tiffany & Co, since this company represents one of the top brands, median value was assigned to Pandora, as this company lies in the medium range, and low range value was assigned to Chow Tai Fook, because this brand is less known internationally and has less strength. Net sales were extracted from the statement of earnings. To compute the brand value, net sales are multiplied by the transaction multiple.

*- Tiffany & Co*

Tiffany & Co brand value equals **$US 4606,86 m.**

**

*Table 11. Tiffany & Co brand valuation with transaction multiple method*

*- Chow Tai Fook*

Chow Tai Fook brand value equals **$US 3528,72 m.**



*Table 12. Chow Tai Fook brand valuation with transaction multiple method*

*- Pandora*

Pandora brand value equals **$US 4061,99 m.**



*Table 13. Pandora brand valuation with transaction multiple method*

### 2.5.2. Excess earnings method

The excess earnings method determines the excess of earnings on all the intangible assets a firm possesses. Brand value according to this method is the value of discounted free cash flows of the brand. The first step of implementation of this method requires values of such parameters, as expected return on net working capital, expected return on tangible fixed assets and expected returns on investments and other assets. For the given case, the value of expected net working capital is the 6-month bond rate for the USA (Tiffany & Co), Hong Kong (Chow Tai Fook) and Denmark (Pandora) (Investing, 2018). The expected return on investment and other assets is a 3-years bond rate for the respective countries (Investing, 2018). The expected return on tangible fixed assets is calculated according to the following formula:

where

E - Equity

Ce- Cost of equity

D - Debt

Dt – After-tax cost of debt

More precise information on calculations of expected returns is given in the appendix.

The second step is the calculation of free cash flows from intangible assets. It is computed as the difference between the value of investments and other assets (from the balance sheet) and total expected return on non-intangible assets. Total expected return on non-intangible assets is, in turn, multiple of expected returns to net working capital, tangible fixed assets and expected return on investments and other assets. The third step is free cash flow from the brand that equals percentage attributable to the brand from free cash flow from the brand. The fourth step is the computation of brand value as the present value of free cash flows of brand. The brand value calculations for Tiffany & Co, Chow Tai Fook and Pandora are presented in tables 14, 15, 16 respectively.

*- Tiffany & Co*

Tiffany & Co brand value equals **$US 4976,44 m.**



*Table 14. Tiffany & Co brand valuation excess earnings method*

*- Chow Tai Fook*

Chow Tai Fook brand value equals **$US 5031,19 m.**

**

*Table 15. Chow Tai Fook valuation excess earnings method*

*- Pandora*

Pandora brand value equals **$US 4450,73 m.** It is important to mention that for Pandora case, out of all free cash flows from all the intangible assets, proportion of 15% attributable to the brand will be taken for the calculations of the brand value, since in 2008 repartition of intangible assets took place, all intangible assets were valued and 15% of the value was attributed to the brand itself, and researcher made an assumption that since 2008 the proportion remained the same.

**

*Table 16. Pandora valuation excess earnings method*

### 2.5.3. Royalty relief method

Royalty relief method requires the value of royalty rate for computation of the brand value. In order to obtain royalty rate for international luxury jewellery business, relevant licencing agreements were reviewed. The benchmark study of these agreements is presented in table 17, and the details of each agreement are in the appendix.



*Table 17. Royalty rate comparable*

Each licensing agreement in table 17 is given with the low and high range of royalty rate, and the median values will then be further applied for brand value calculation of Tiffany & Co, Chow Tai Fook and Pandora. The following formula is applied to calculate the brand value with this method:

where

TV – Terminal value

Tax – Tax rate

Ri – Royalty rate

ri – Discount rate

*- Tiffany & Co*

Brand value of Tiffany & Co, calculated with the royalty relief method uses royalty rate of 8 percent because Tiffany & Co is a well- known strong brand. Applying the royalty relief brand valuation method, research obtained the value of Tiffany & Co brand to be worth **$US 3202,54 m**. Calculations are presented in table 18.



*Table 18. Tiffany & Co brand valuation with royalty relief method*

*- Chow Tai Fook*

To apply the royalty-relief method for the case of Chow Tai Fook, the royalty rate of 5 percent was applied, because even though Chow Tai Fook is an international jewellery brand, it is present mostly in Asia and not that widely recognized internationally. The brand value of the company, according to this method, equals **$US 7161,31 m.** Calculations are presented in table 19.



*Table 19. Chow Tai Fook brand valuation with royalty relief method*

*- Pandora*

For the Pandora case, the royalty rate of 6,5 percent was established as the mean value between the minimum of 5 percent and the maximum of 8 percent, since the company has a strong international presence, however, its brand is not as strong as the one of Tiffany & Co. Thus, Pandora brand value, obtained with the royalty relief method is **$US 6541,09 m**. Calculations are presented in table 20.



*Table 20. Pandora brand valuation with royalty relief method*

### 2.5.4. EBIT comparison method

This method aims to compare operating profit (EBIT) of jewellery companies in question with those from benchmark companies. For this method, brand value is calculated as the present value of after-tax operating profit attributable to the brand in question. For the cases of Pandora and Tiffany & Co, Singlet Jewelers was chosen as a benchmark. For Chow Tai Fook, benchmark company is Chow Sang Sang. These two companies were chosen as benchmarks because they operate in the same markets and produce very similar products, but their brands are much weaker and are not widely recognized.

For this method, in order to calculate EBIT margin premium, EBIT (as the percentage of net sales) of the benchmark company is subtracted from the EBIT of the valued company. Detailed calculations for Tiffany & Co, Chow Tai Fook and Pandora are presented in tables 21, 22, 23 respectively.

*- Tiffany & Co*

Tiffany & Co brand value is **$US 3161,50 m.**



*Table 21. Tiffany & Co brand valuation with EBIT comparison method*

*- Chow Tai Fook*

Chow Tai Fook brand value is **$US 3930,35 m.**



*Table 22. Chow Tai Fook brand valuation with EBIT comparison method*

*- Pandora*

Pandora brand value is **$US 24659,36 m.**

****

*Table 23. Pandora brand valuation with EBIT comparison method*

### 2.5.5. Demand driver method

In general, the method determines brand-specific operational profit by computing the difference between the EBIT of the brand in question and a non-branded benchmark. Price to earnings ratio (P/E ratio) is used, and S-curve is then applied to obtain the brand value.

For the given case, the logic of application of this method is following. The post-tax brand differential earnings were calculated (same benchmark companies, as in the EBIT comparison method, were applied). Then P/E ratio of international jewellery brands was taken (Reuters, 2018), and high, low and average values were identified. The P/E ratio table is in the appendix. Then, the difference in EBIT between the valued brand and the benchmark is calculated and adjusted to inflation rate. Values for the inflation rates (IMF, 2018) are in the appendix. The adjusted EBIT margin premium is then discounted to the present value. Calculations are presented in the tables 24, 26, 28.

The next step is the calculation of the brand strength. Values for the brand strength for Tiffany & Co, Chow Tai Fook and Pandora were assigned arbitrarily after analysis of these brands (tables 25, 27, 29). After that, the S-curve is calculated with P/E ratio and brand strength values from 0 to 100 (figures 7, 8, 9). The value of the implied multiplier is the intersection of the assigned brand strength value with the P/E ratio. Finally, to calculate brand value, the multiplier is multiplied by the present value of post-tax brand’s differential earnings. Detailed calculations for each brand are presented in details.

*- Tiffany & Co*

**

*Table 24. Calculations of post-tax brand’s differential earnings for Tiffany & Co*

**

*Table 25. Brand strength analysis for Tiffany & Co*



*Figure 7. S-curve for Tiffany & Co*

With the brand strength value of 70 and the steepness of the S-curve of 0,1, the value of the implied multiplier equals 29,64. Detailed calculations for the S-curve are in the appendix. Brand value of Tiffany & Co with the demand driver method equals **$US 7870,74**.

*- Chow Tai Fook*

**

*Table 26. Calculations of post-tax brand’s differential earnings for Chow Tai Fook*

**

*Table 27. Brand strength analysis for Chow Tai Fook*



*Figure 8. S-curve for Chow Tai Fook*

With the brand strength value of 50 and the steepness of the S-curve of 0,1, the value of the implied multiplier equals 20,02. Detailed calculations for the S-curve are in the appendix. Chow Tai Fook brand value calculated by the demand driver method is **$US 2993,52 m**.

*- Pandora*

**

*Table 28. Calculations of post-tax brand’s differential earnings for Pandora*

**

*Table 29. Brand strength analysis for Pandora*



*Figure 9. S-curve for Pandora*

With the brand strength value of 60 and the steepness of the S-curve of 0,1, the value of the implied multiplier equals 25,86. Detailed calculations for the S-curve are in the appendix. Pandora brand value calculated by the demand driver method equals **$US 18411,37 m**.

*\*\*\**

In conclusion, the second chapter of the current study described the methodology and conducted the brand valuation of the selected companies from international jewellery industry. Preliminary calculations, as well as the detailed calculation of brand value for each method, were presented. Results of the valuation will be further used in the third chapter to test hypotheses and develop recommendations, as well as to discuss limitations of the research.

# 3. Results of the analysis and discussion

Section 1.6.4. of Chapter 1 of the current paper introduced 5 hypotheses that aim to identify brand valuation methods that provide fair brand value and can be adopted for brand valuation of international jewellery companies. The hypotheses are:

H1: Transaction multiple method does not provide a fair brand value for international jewellery companies;

H2: Excess earnings method does not provide a fair brand value for international jewellery companies;

H3: Royalty relief method does not provide a fair brand value for international jewellery companies;

H4: EBIT comparison method does not provide a fair brand value for international jewellery companies;

H5: Demand driver method does not provide a fair brand value for international jewellery companies.

In order to test them, the researcher calculated brand values of three selected jewellery companies: Tiffany & Co, Chow Tai Fook and Pandora, described in the second chapter of the study. The next step of the research is to validate these hypotheses. To do so, sensitivity analysis, comparison with the benchmark and comparison with the ceiling value of the brand were applied. The results are presented in the following sections.

## 3.1. Empirical results

Chapter 2 of the study provided brand values of jewellery companies with five different methods: transaction multiple, excess earnings, royalty relief, EBIT comparison and demand driver. The brand values obtained for each company are presented in table 30.

|  |  |  |  |
| --- | --- | --- | --- |
| Currency - $US | Tiffany & Co | Chow Tai Fook | Pandora |
| Transaction multiple method | 5759,77 | 3528,72 | 4061,99 |
| Excess earnings method | 4976,44 | 5031,19 | 4450,73 |
| Royalty relief method | 3202,54 | 7161,31 | 6541,09 |
| EBIT comparison method | 3161,50 | 3930,35 | 24659,36 |
| Demand driver method | 7870,74 | 2993,52 | 18411,37 |

*Table 30. Summary of brand values*

To identify brand valuation method that provides fair value, and is the most suitable for companies in operating in the international jewellery business, the researcher ran three tests to validate hypotheses. Comparison with the benchmark, comparison with the ceiling value and sensitivity analyses of the brand were used for this purpose.

### 3.1.1. Comparison with the brand ceiling value

Brand ceiling value is market goodwill, calculated as the difference between market capitalization and equity book value. Market goodwill captures all the hidden value of the company including brand value, and it can be useful as a filter for the first step of analysis to see which brand valuation methods can be dismissed, because if the brand value obtained from one of the methods is higher than market goodwill, it is automatically higher than the actual value of the brand. One can observe that EBIT comparison method can already be dismissed as it gives an extremely high value for the case of Pandora. Demand driver method should also be excluded for the same reason. Even though this method provides a relatively coherent result for the brand ceiling value for the case of Tiffany & Co, for Chow Tai Fook and Pandora results are substantially undervalued and overvalued, respectively. When it comes to the three remaining methods, one cannot make an unambiguous conclusion about the applicability of their results, and further tests are required, even though these values lie within the range of appropriate results. Tables 31, 32, 33 and 34 provide information about the brand values and calculations of ceiling value.

|  |  |  |  |
| --- | --- | --- | --- |
| Currency - $US | Tiffany & Co | Chow Tai Fook | Pandora |
| Transaction multiple method | 5759,77 | 3528,72 | 4061,99 |
| Excess earnings method | 4976,44 | 5031,19 | 4450,73 |
| Royalty relief method | 3202,54 | 7161,31 | 6541,09 |
| EBIT comparison method | 3161,50 | 3930,35 | 24659,36 |
| Demand driver method | 7870,74 | 2993,52 | 18411,37 |
| **Brand ceiling value (market goodwill)** | **9554,58** | **8840,51** | **11483,26** |

*Table 31. Summary of brand values and brand ceiling values*

**

*Table 32. Brand ceiling value for Tiffany & Co*

**

*Table 33. Brand ceiling value for Chow Tai Fook*

**

*Table 34. Brand ceiling value for Pandora*

### 3.1.2. Comparison with the benchmark

As a benchmark, brand values from biggest brand valuation consultancies Interbrand and Brand Finance, as well as from Forbes were obtained. These companies provide brand values for the biggest companies in the world and annually issue rankings of the strongest brands, therefore brand values from these consultancies seem trustworthy and were chosen as a benchmark. However, these companies do not disclose methods that they apply, one cannot fully rely on their brand values, thus in the frames of this research, they are applied to analyse whether brand values obtained by the researcher are reasonable and plausible or not.

When comparing benchmark values with the brand values calculated in the second chapter, one can conclude that for the case of Tiffany & Co, EBIT comparison method and royalty relief method lead to extremely undervalued results, and demand driver method has an overvalued result. Excess earnings method and transaction multiple methods seem to be more accurate. Details are provided in the tables 35 and 36.



*Table 35. Benchmark values for Tiffany & Co*

|  |  |
| --- | --- |
|  | Tiffany & Co ($US) |
| Transaction multiple method | 5759,77 |
| Excess earnings method | 4976,44 |
| Royalty relief method | 3202,54 |
| EBIT comparison method | 3161,50 |
| Demand driver method | 7870,74 |

*Table 36. Summary of brand values for Tiffany & Co*

Speaking about Chow Tai Fook, brand values from Interbrand and Forbes do not exist for the company, so researcher used the value from Brand Finance only as a benchmark. Here one can observe the following pattern: brand value obtained with royalty relief method is highly overvalued, but values calculated with the remaining methods seem to be rather plausible when compared with the benchmark value. Details of the benchmark value and Chow Tai Fook brand values are in tables 37 and 38.

**

*Table 37. Benchmark values for Chow Tai Fook*

|  |  |
| --- | --- |
|  | Chow Tai Fook ($US) |
| Transaction multiple method | 3528,72 |
| Excess earnings method | 5031,19 |
| Royalty relief method | 7161,31 |
| EBIT comparison method | 3930,35 |
| Demand driver method | 2993,52 |

*Table 38. Summary of brand values for Chow Tai Fook*

For Pandora case, same as for the case of Chow Tai Fook, only brand value from Brand Finance agency was obtained. When this value is compared brand value results obtained by the researcher, one can conclude that all the values are very high, with results from EBIT comparison and demand driver methods falling absolutely out of the reasonable scope of values. The result from the royalty relief method is also more than twice bigger than the benchmark value. Details are given in the tables 39 and 40.

**

*Table 39. Benchmark values for Pandora*

|  |  |
| --- | --- |
|  | Pandora (DKK) |
| Transaction multiple method | 4061,99 |
| Excess earnings method | 4450,73 |
| Royalty relief method | 6541,09 |
| EBIT comparison method | 24659,36 |
| Demand driver method | 18411,37 |

*Table 40. Summary of brand values for Pandora*

To sum up, comparison of brand values with benchmark did not provide an absolutely unanimous result for all three cases of jewellery companies in question, however, benchmark helped identify methods that lead to brand values that fall out of the reasonable range. Comparison of brand values that were calculated in the second chapter with brand values from valuation consultancies showed that demand driver method and EBIT comparison method generally are least applicable methods as values obtained by these methods seem to be least reasonable.

### 3.1.3. Sensitivity analysis

Sensitivity analysis is a technique, that is used to determine how the target variable may be affected by changes in input variable under a given set of assumptions (Investopedia, 2018). For the given case, sensitivity analysis will help identify how much the brand value changes when initial parameters used to calculate the brand value change. The most common parameters (input variables) for brand valuation methods are discount rate and perpetual growth rate, but several methods use other parameters, like royalty rate of the value of the multiple.

To follow the same narrative logic, as in the second chapter, sensitivity analysis for the brand values will be presented method-wise to analyse the contribution of each brand individually. Sensitivity analysis was chosen by the researcher because it helps identify how stable a brand valuation method is, when parameters of the method change. It is useful for identification of a reliable method that provides a fair brand value since some parameters of brand valuation methods are subjective and modification of these parameters helps notice whether the impact is substantial or not. Also sensitivity analysis helps to identify to what extent the result of brand valuation is dependent on certain parameters. So the less dependent is the brand valuation method on the particular parameters, the less risky it is in providing an incorrect brand value because of misevaluation of a parameter.

*- Transaction multiple method*

Sensitivity analysis for transaction multiple method is based only on one variable – transaction multiple. As it was previously described in the second chapter of the study, the researcher used high range median multiple for Tiffany & Co, low range median multiple for Chow Tai Fook and median for Pandora. Therefore, sensitivity table for each company lies in a range around the value of the multiple (tables 41, 42 and 43).

According to the sensitivity analysis, transaction multiple method provides a good result, since sensitivity variations are not too big and they lie within a small range for each of the three cases. However, it’s crucial to mention this method relies heavily on the value of the multiple, what significantly impacts the final result. Since all the weight of sensitivity relies on one parameter, there is a need for a profound preliminary analysis to identify what multiple will be more applicable to a particular brand. For the case of Tiffany & Co, for instance, one can obviously conclude that multiple should be bigger than 1 due to the strength and international recognition of the brand.

Overall, all the values in sensitivity tables seem quite reliable, but the only drawback of the method is a need for a thorough analysis of comparable transactions (recent acquisitions of international luxury brands – for the current study) to ensure that the company falls in a good range and brand value obtained guarantees a fair value.

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*Table 41. Transaction multiple sensitivity analysis for Tiffany & Co*

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*Table 42. Transaction multiple sensitivity analysis for Chow Tai Fook*

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*Table 43. Transaction multiple sensitivity analysis for Pandora*

*- Excess earnings method*

Sensitivity tables of the excess earnings method are built on the values of two variables – discount rate and perpetual growth rate, results of calculations are presented in tables 44, 45 and 46. This method provides an evidently positive result, as values in sensitivity tables do not fluctuate significantly, no matter how each parameter changes. The range of values is a bit bigger for Pandora, but nevertheless, this range is still appropriate for the given parameters.

Thus, based on the sensitivity tables for each brand, excess earnings method establishes reliable results regardless the changes in variables, provides a good range of brand values and ensures fair brand values.

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*Table 44. Excess earnings sensitivity analysis for Tiffany & Co*

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*Table 45. Excess earnings sensitivity analysis for Chow Tai Fook*

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*Table 46. Excess earnings sensitivity analysis for Pandora*

*- Royalty relief method*

Sensitivity analysis of royalty relief method uses the discount rate, royalty rate and perpetual growth rate as variables to build the tables. What one can see based on the outcome, is that the result is pretty stable across all brands and it does not fluctuate substantially. However, as royalty relief method relies on the value of the royalty rate, the final brand value can be biased. For example, for Tiffany & Co, brand value is undervalued. One of the possible reasons for this outcome is that the brand that receives royalties is not as good and strong as the one of Tiffany & Co. For the case of Chow Tai Fook, the value is too high. Speaking about the range of values, it is too low for Tiffany & Co and too high for Chow Tai Fook but appropriate for Pandora.

To conclude, royalty relief method is a reliable method in terms of sensitivity, but its crucial limitation is the royalty rate based on the chosen royalty comparable (licencing agreements for the current research). Overall, this method provides a fair brand value, but it is less accurate than excess earnings method, as the drawback of royalty relief method is reliance on the royalty rate. The general limit of the royalty rate is the fact that companies in question do not usually licence for their brands, they do not put royalty rates themselves, thus royalty comparable can be too high or too low for a particular case.

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*Table 47. Royalty relief sensitivity analysis for Tiffany & Co*

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*Table 48. Royalty relief sensitivity analysis for Chow Tai Fook*

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*Table 49. Royalty relief sensitivity analysis for Pandora*

*- EBIT comparison method*

Sensitivity tables for EBIT comparison method are built based on such variables as the discount rate, perpetual growth rate and comparable EBIT margin. It becomes obvious that comparable value of EBIT margin obtained from another brand has a very big influence on the final result, this variable has a much bigger impact than the discount rate or perpetual growth rate. And as it is very complicated to find a good comparable, final values can vary too much because of the chosen comparable, what can lead to an unpredictable result. What is more, every new comparable will bring a different result, and valuator will hardly be able to reach unanimous result when a different comparable is used. When sensitivity tables 50, 51 and 52 are analysed, one can see that for the case of Tiffany & Co variation of values is quite minor, but for Chow Tai Fook and Pandora spread of values is very substantial. What is more, overall values for Pandora are too big and overvalued.

Therefore, as the spread of values is too big and the method relied heavily on a comparable what can lead to unpredictable and not plausible results, EBIT comparison method is not reliable overall and cannot ensure fair brand value.

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*Table 50. EBIT comparison sensitivity analysis for Tiffany & Co*

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*Table 51. EBIT comparison sensitivity analysis for Chow Tai Fook*

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*Table 52. EBIT comparison sensitivity analysis for Pandora*

*- Demand driver method*

For demand driver method, discount rate, comparable EBIT margin and the brand strength score were used to build sensitivity tables. Due to the fact that demand driver method is based on EBIT comparison method (both rely on the comparable EBIT margin of another company), one can conclude that demand driver cannot provide a fair brand value for Tiffany & Co, Chow Tai Fook and Pandora. It can be further proved with sensitivity analysis. With changes in comparable EBIT margin, values for Tiffany & Co and Pandora become too high, plus, they fluctuate too much. In the case of Chow Tai Fook, values vary significantly, too. Also, score for an average brand strength in the middle of the S-curve results in heavy fluctuations of the implied multiple and hence the brand value. Details of the sensitivity analysis are in the tables 53, 54, 55.

Thus, with overall substantial fluctuations in sensitivity tables, heavy reliance on the EBIT margin of a comparable and arbitrary assigned brand strength score, results obtained with demand driver method are overall too big, and this method does not seem to provide fair brand values.

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*Table 53. Demand driver sensitivity analysis for Tiffany & Co*

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*Table 54. Demand driver sensitivity analysis for Chow Tai Fook*

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*Table 55. Demand driver sensitivity analysis for Pandora*

In order to make the conclusion about results of the analysis, it is worth going back to the hypotheses to see which of them can be validated by the sensitivity analysis and comparison with benchmark and the ceiling value.

Based on the analysis, hypotheses H1 and H2 are not validated, since the transaction multiple method and excess earnings method brand values are the least sensitive, are lower than the brand ceiling value and are comparable with the values of the benchmark. Details are given in the figure 10. Thus, these methods are considered to be the most reliable and applicable for brand valuation of companies operating in the international jewellery business, and brand values that they methods obtained are considered fair.



*Figure 10. Hypotheses 1 and 2*

As for hypotheses H3, H4 and H5 they are validated due to substantial disadvantages that these brand valuation methods have. The details are presented in figures 11, 12, 13.



*Figure 11. Validation of Hypothesis 3*

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*Figure 12. Validation of Hypothesis 4*

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*Figure 13. Validation of Hypothesis 5*

Overall, the analysis that was conducted by the researcher in the current study helped select brand valuation methods that provide fair brand value for international jewellery brands. These methods – excess earnings method and transaction multiple method are considered by the researcher to be applicable for brand valuation of other companies that operate in the international jewellery business.

## 3.2. Recommendations and managerial implications

This research on the choice of brand valuation methods for international jewellery business provides valuable practical implications for brand management and financial management in luxury industry. Generally, brand valuation helps identify sources of brand value. It can also provide a tool for brand management and decision-making, allow more efficient communication between accounting, marketing, corporate finance and management of a company. So valuing brands is an important activity that brings a set of potential benefits and should be executed by firms on a regular basis, since it helps track changes in the brand value and identify key success drivers.

In the frames of the current study, the researcher focused primarily on identification of brand valuation method that would be the most applicable to companies operating in the international jewellery business. Excess earnings method and transactional multiple method were selected as the most suitable for the specifics of the industry. The researcher suggests both methods to be implemented simultaneously for brand valuation of other companies in the international jewellery business to obtain a fair brand value. Choice of these methods takes into consideration main challenges that occur in the brand valuation of jewellery companies and provides reliable ground for fair brand valuation. And the fair brand value of a brand can be further implemented within a wide set of business activities.

Managerial implications are further divided into two groups: implications for internal purposes and implications for external purposes.

As for the first group of implications, fair brand value calculated with the use of excess earnings and transaction multiple methods can serve as a key performance indicator (KPI) for the marketing department. When marketing team keeps track of the evolution of brand value, it can make a conclusion about the efficiency of the marketing efforts. What is more, besides tracking their progress, they can communicate the result to the management of the company to show how their actions yield good results for the brand and hence for the company. Excess earnings brand valuation method will be extremely practical for this purpose. Similarly to that, a decrease or stagnation in brand value can indicate that efforts of the marketing team go in the wrong direction and that marketing strategy is to be adjusted to better address the needs of the market. This implication is extremely relevant for international jewellery business, where switching costs are low, and changes in brand value can signal changes in consumer behaviour towards the brand. Speaking about the executive level of the company’s management, brand value can also be used as a KPI by the board members to evaluate the performance of the CEO.

The second part of implications is concerned with the external factors. Due to the fact that brand value of a company does not always appear in the financial statements, brand value as a KPI, especially calculated with the excess earnings method, can be used as a communication tool targeted towards investors. The firm that presents the evolution of its brand value in the annual report sends positive signals to the market, shareholders and can be a good indicator to trigger the growth of the stock price. This implication is especially applicable for jewellery companies since many people see the purchase of unique luxury jewellery pieces as an investment and therefore brand value serves as a good indicator of the company’s performance. Furthermore, in case of a merger or an acquisition, a company that is able to estimate its brand value will be able to leverage it during the due diligence phase in order to increase its value in the eyes of a potential acquirer. This way, the company will have its own fairly estimated value of the brand to use against external valuators who might come up with an underestimated value.

Additionally, a fair brand value can be implemented for planning and budgetary process, what further results in better brand management where expenditures, especially on advertising and promotions are discretionary. Many of the jewellery brands that enjoy wide international recognition, strong brand awareness and a big amount of loyal customers, can sometimes overlook areas that require the most attention and additional spending. Careful brand management activities executed with the help of fair brand value can improve the situation and highlight the least and the most effective areas. It can also change the perception of managers since a fair brand value will help them focus on the most important brand management outcomes and deliverables. Both methods serve this purpose very well.

Lastly, computation of brand values can have influence on strategic planning in control. When companies across the industry use the same brand valuation method to calculate economic value of their brand, they can understand the better position of their brand relative to competitors. Thus, knowledge of the source of the value of this brand is essential for comparison with other industry players. It also simplifies the implementation of the transaction multiple method that requires information about recent transactions. And when companies across the industry apply the same method, they can clearly assess the level of competition and their brand strengths.

## 3.3. Theoretical contribution, limitations and further research

The theoretical contribution of the paper is generally concerned with the analysis of brand valuation methods and identification of specific industry features that influence the choice of brand valuation method. Researcher built a comparative table of brand valuation methods and included most important aspects of each method to prepare a vivid picture that can be used for various purposes. What is more, the paper elaborated on brand value and brand equity specifically for the international jewellery business. Moreover, analysis of specific brand valuation methods and their applicability to a specific industry can also be considered as a contribution since it can be further elaborated and enlarged to cover other industries and build up a map of brand valuation methods that provide fair brand value for companies that operate in different segments. This study contributes to already existing research on brand valuation, for example, of consumer goods industry (Kirk et al., 2013) and high-technology products (Truong et al., 2017) and deepens the knowledge on brand valuation for these industries. Conclusion on the choice of two brand valuation methods that the researcher reached, can be also further used by academia for other papers on brand valuation.

However, results of the conducted research have a set of limitations that should be considered, too. In general, limitations of the study consider brand valuation methods and the chosen sample of the companies that were selected to carry on brand valuation and calculate specific brand values.

First of all, the current study covered only the economic aspect – financial brand valuation of companies operating in the specific industry. However, non-financial aspects like brand equity were not covered in the frames of this paper. The focus of this research was narrowed down to monetary valuation, thus it is suggested to cover brand evaluation in the following studies on the similar topic, too.

The second limitation is related to the chosen industry. This study was focused primarily on the luxury segment of the international jewellery business. It analysed specifics of the industry that affect brand valuation, selected brand valuation methods that are applicable to the industry and tested them on the sample of specific companies that belong to this segment. However, this study did not consider other businesses where brand value plays a major role, has a significant influence on the business and impacts distinction between different companies that produce similar goods, for example, other categories of luxury goods: apparel, watchmaking, beverages, etc., or airlines, automotive industries, cosmetic products, etc. It would be interesting to identify specific factors that influence the brand valuation of these businesses and analyse what brand valuation methods can provide fair brand value and can be implemented as reliable ones.

The third application considers the chosen sample. This study calculated brand values of three companies from the international jewellery business, but it would be very useful to enlarge the sample and add other companies form the industry to analyse and to test the applicability of selected brand valuation methods. In the frames of the given paper, enlargement of the sample was very complicated due to two reasons: other interesting companies in the segment either are private and disclose all their financial data or have many brands under one house name, what significantly complicates brand valuation. However, the bigger sample will help see whether same brand valuation methods remain preferable within the specifics of the industry.

The fourth limitation is concerned with the uncertainty associated with all brand valuation methods. Even though all the brand valuation methods used by the researcher rely on theoretical foundations, they remain perceived as highly subjective across the industry. Indeed, each method covered during the analysis of the researcher requires at some point a subjective input. Guessing the future financial results of a company and a brand is never an absolute science and parameters used to estimate them like the perpetual growth rate are subjective since no one knows what will really happen to the company in a few years: they might expand through aggressive acquisitions, be merged inside another company or even go bankrupt. Similarly, any time a comparable company or transaction is used, the choice of that comparable is highly subjective since no two companies are exactly alike and it is up to the discretion of the researcher to make his case for a comparable rather than another. Moreover, once comparable have been chosen, there is also a subjective choice to make to decide whether the top or the bottom of the bracket will be used and whether a discount must be applied. Finally, all methods relying on grading the brand strength through certain criteria or consumer input are fundamentally subjective for two reasons. Firstly, those inputs are used to grade categories that are inherently unmeasurable. Secondly, the weight of each part of the grade is defined arbitrarily. These uncertainties have a great impact on the final brand value and should be carefully considered for the further research.

Overall, as there is no universal brand valuation method, many assumptions are to be made and several arbitrary parameters are to be set, there is a need for further research on the topic of brand valuation and applicability of brand valuation methods for specific purposes in general.

# Conclusion

This research paper was devoted to the choice of brand valuation methods that would be applicable for companies operating in international jewellery business taking into consideration specifics of the industry and to develop recommendations for possible applicability of the selected methods for managers to use for business activities. The goal of the paper has been achieved through several steps by the accomplishment of developed objectives.

First of all, important definitions concerning brand valuation were introduced, role and challenges associated with brand valuation were identified. The researcher highlighted problematics of the choice of brand valuation method, then analysed existing brand valuation methods and developed a comparative table of main brand valuation methods. Out of the scope of all brand valuation methods, five were selected based on the specifics of the international jewellery business. Presentation of key terms in relation to the brand value and brand equity in the industry and analysis of the industry and problems associated with brand valuation helped highlight applicable brand valuation methods, develop the conceptual model of the research and present five hypotheses. The chapter presented the complex overview of brand valuation and brand equity, but narrowed down the focus of the paper to financial valuation of brand value for brand management purposes.

Secondly, the researcher conducted the brand valuation of selected jewellery companies, using only those brand valuation methods that fit the specifics of the industry. After calculation of the brand values, the researcher tested the hypotheses to find out which of the brand valuation methods could provide fair brand value. To do so, comparison with the ceiling value and benchmark and sensitivity analysis were used.

The central part of the current study is the identification of two brand valuation methods that are to be implemented for brand valuation of the companies operating in the international jewellery business. They are excess earnings method and transaction multiple method. Applied simultaneously, they provide a fair brand value for the brand in question and can solve various challenges that arise in the areas of financial management, brand management and marketing. Theoretical analysis of these methods, their applicability to the specifics of the industry and reliability of the methods that was proved with the testing of established hypotheses – all these aspects ensure that these methods can be applied by the companies. Recommendations for managers that were provided in the third chapter, describe such cases.

Theoretical contribution of the current study, as well as the limitations and directions for the further research were identified. They consider the narrow focus of this study and suggest that the further papers tackle the challenge of brand valuation from a wider perspective.

# References

Aaker, D.A., (1991). Managing brand equity: capitalizing on the value of a brand name, The Free Press, New York

1. Aaker, D. A., Joachimsthaler E. (2002). Brand leadership. London: Free Press.
2. Abdifatah Ahmed Haji, Nazli Anum Mohd Ghazali, (2018). The role of intangible assets and liabilities in firm performance: empirical evidence. Journal of Applied Accounting Research, Vol. 19 Issue: 1, pp.42-59

AMA, (2017). American Marketing Association. Dictionary. Retrieved from: https://www.ama.org/resources/Pages/Dictionary.aspx?dLetter=B

Anson W., Noble D., Samala J., (2014). IP Valuation: What methods are used to value intellectual property and intangible assets? The Licencing Journal. Vol. 34 Issue: 2, pp.1-7

Ap, T., (2014). Chow Tai Fook buys US diamond business Hearts on Fire for US$150 m. South China morning post. Retrieved from: https://www.richemont.com/our-businesses.html

Berthon, P., Pitt, L., Parent, M., & Berthon, J. P., (2009). Aesthetics and ephemerality: Observing and preserving the luxury brand. Business Horizons, Vol. 1 Issue: 51, pp.45–66.

1. Brand Finance, (2017). Apparel 50. The annual report on the world’s most valuable apparel brands. Retrieved from: http://brandfinance.com/images/upload/brand\_finance\_apparel\_50\_2017\_report\_locked.pdf

Brand Finance, (2018). Global 500. Retrieved from: http://brandfinance.com/images/upload/bf\_global2018\_500\_website\_locked\_final\_spread\_03042018.pdf

Brand Finance, (2017). Brand Finance. Pandora brand value. Retrieved from: http://brandfinance.com/images/upload/denmark\_2017\_press\_release.pdf

Brand Finance, (2018). NetEase is China’s fastest growing brand. Retrieved from: http://brandfinance.com/news/press-releases/netease-is-chinas-fastest-growing-brand/

Brand Z, (2018). Tiffany & Co brand value. The top 75 global retail brands. Retrieved from: http://brandz.com/article/tiffany--co-

Buss, B., (2016). Brand valuation: identifying the opportunities and challenges. A Professional Development Journal for the Consulting Disciplines. Issue: 9, pp.7-13

1. Chintha Sam Sundar, Kollipara Vamsi Prasad, (2012). Prospects of brand accounting towards economic, strategic and social fortification of firms.  International Journal of Business Insights & Transformation. Vol. 5 Issue: 2, pp.44-48.

Chow Tai Fook, (2017). Chow Tai Fook Milestones. Retrieved from: http://corporate.chowtaifook.com/en/about/milestones.php

Chow Tai Fook, (2018). Investor relations. Annual and interim reports. Retrieved from: http://corporate.chowtaifook.com/en/ir/reports.php

Clifton, R., Simmons, J., (2003). Brands and branding. The Economist in association with Profile Books Ltd. Retrieved from: http://www.culturaldiplomacy.org/academy/pdf/research/books/nation\_branding/Brands\_And\_Branding\_-\_Rita\_Clifton\_And\_John\_Simmons.pdf

Cracuin, A., (2009). The brand – a few definitions. Manager: economic, social, political and cultural problems of the future society, Issue: 10, pp.86-93

Damodaran, (2014). Damodaran discusses value versus price and his view of the BV world. Business Valuation Resources. Vol. 20 No.9

Damodaran, (2018). Country default spreads and risk premiums. Retrieved from: http://pages.stern.nyu.edu/~adamodar/New\_Home\_Page/datafile/ctryprem.html

Dauriz, L., Remy, N., Tochtermann, T., (2014). A multifaceted future: The jewelry industry in 2020. McKinsey & Company. Retrieved from: https://www.mckinsey.com/industries/retail/our-insights/a-multifaceted-future-the-jewelry-industry-in-2020

De Beers, (2018). Chow Tai Fook Jewellery. Retrieved from: http://www.debeersgroup.com/globalsightholdersales/en/directory/chow-tai-fook-jewellery-co-ltd.html

De Chernatony, L. (2006). From brand vision to brand evaluation. The strategic process of growing and strengthening brands. 2nd edition. Elsevier Ltd.

Duguleana L., Duguleana C., (2014). Brand Valuation Methodologies and Practices. Bulletin of the Transilvania University of Bracov. Economic Science. Vol 7 Issue: 56, No 1, pp.43-52

FASB, (2007). Statement of financial accounting standards. Retrieved from: http://www.fasb.org/cs/Satellite?c=Page&cid=1176157086176&pagename=FASB%2FPage%2FSectionPage

Fernandez, P., (2012). Valuation of brand and intellectual capital. IESE Research papers. IESE Business school

Fionda, A.M., Moore, C.M., (2009). The anatomy of the luxury fashion brand. Journal of Brand Management. Vol. 16 Issue: 5-6, pp. 347-363

Forbes, (2017). The world’s most innovative companies. Retrieved from: https://www.forbes.com/innovative-companies/list/#tab:rank

Forbes, (2017). Tiffany & Co brand value. Retrieved from: https://www.forbes.com/pictures/fkmm45fghl/tiffany-co/#5941bf354f34

Forbes, (2018). The world’s leading public companies. Chow Tai Fook. Retrieved from: https://www.forbes.com/companies/chow-tai-fook-jewellery/

Frent, P., (2017). Leading players of the global luxury goods industry. Xerfi Global.

1. Garcia, M.R., (2017). Financial Valuation of luxury brands. New luxury management. pp.85-102
2. Godey, B., Pederzoli, D., Aiello, G., Donvito, R., Chan, P., Oh, H., Singh, R., Skorobogatykh, I., Tsuchiya, J., Weitz, B., (2012). Brand and county-of-origin effect on consumers’ decision to purchase luxury products. Journal of Business Research. Vol. 65., pp.1461-1470

Haigh, D., Knowles,J., (2004). Don’t waste your time with brand valuation, ,arketing NPV, Vol. 1 Issue: 6, pp.17-19 . Retrieved from: http://www.howbigisbrand.com/articles/2004%2010%20Brand%20Valuation%20-%20MNPV.pdf

Haxthausen, O., (2009). Valuing brands and brand investments: Key learnings and future expectations. Journal of Brand Management. Vol. 17 Issue: 1, pp.18-25

Heberden, T., (2011). Overview of ISO 10668: Brand Valuation. Brand Finance, Australian Marketing Institute.

1. IAS, (2017). IAS 38 Intangible assets. Retrieved from: http://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets

IAS Plus, (2017). Goodwill and other intangible assets – key differences between U.S. GAAP and IFRSs. Retrieved from: https://www.iasplus.com/en-us/standards/ifrs-usgaap/goodwill

IFRS, (2017). IFRS 3 Business combinations. Retrieved from: http://www.ifrs.org/issued-standards/list-of-standards/ifrs-3-business-combinations

IFRS, (2017). IFRS 13. Fair Value Measurement. Retrieved from: https://www.ifrs.org/issued-standards/list-of-standards/ifrs-13-fair-value-measurement/

IMF, (2018). Inflation rate, average consumer price. Retrieved from: http://www.imf.org/external/datamapper/PCPIPCH@WEO/OEMDC/

IMF, (2018). Real GDP growth. Retrieved from: http://www.imf.org/external/datamapper/NGDP\_RPCH@WEO/OEMDC/ADVEC/WEOWORLD

Investing, (2018). 6-month bond yield. The USA, Hong Kong, Denmark. Retrieved from: https://www.investing.com/rates-bonds/u.s.-6-month-bond-yield; https://www.investing.com/rates-bonds/hong-kong-6-month-bond-yield; https://www.investing.com/rates-bonds/denmark-6-month-bond-yield

Investing, (2018). 3-Year bond yield. The USA, Hong Kong, Denmark. Retrieved from: https://www.investing.com/rates-bonds/u.s.-3-year-bond-yield; https://www.investing.com/rates-bonds/hong-kong-3-year-bond-yield; https://www.investing.com/rates-bonds/denmark-3-year-bond-yield

Investopedia, (2018). Sensitivity analysis. Retrieved from: https://www.investopedia.com/terms/s/sensitivityanalysis.asp

Interbrand, (2017). Tiffany & Co brand value. Retrieved from: http://interbrand.com/best-brands/best-global-brands/2017/ranking/tiffany/

ISO, (2010). International Standard ISO 10668. Brand valuation – requirements for monetary brand valuation.

Kapferer, J.-N., (2012). Financial valuation and accounting for brands. In The New Strategic Brand Management: Advanced Insights and Strategic Thinking (pp. 441-468). London: Kogan Page.

1. Kapferer, J.-N., (2012). Abundant rarity: the key to luxury growth. Business Horizons. Vol.55, pp.453-462
2. Kapferer, J.-N., (2012). The new strategic brand management. Kogan Page. 4th edition.

Kapferer, J.-N., (2017). Managing luxury brands. Advances in luxury brand management. Journal of Brand Management. pp.235-249

Kim, L., (2016). Watchmakers and jewellery companies – World. Xerfi Global.

Kirk, C.P., Ray, I., Wilson, B., (2013). The impact of brand value on firm valuation: The moderating influence of firm type. Journal of Brand Valuation. Vol. 20 Issue: 6, pp.488-500

Ko, E., Costello, J. P., Taylor, C.R., (2017). What is a luxury brand? A new definition and review of the literature. Journal of Business Research. Article in press.

Kothari, C.R., (2004). Research methodology. Methods and techniques. New Dehli: New Age International Publishers

Kotler, Ph., Armstrong, G., Wong, V., Saunders, J., (2005). Principles of marketing. 4th European edition. Prentice Hall. Financial Times.

Kotler Ph., Keller K.L., (2014). Marketing Management. Retireved from: http://socioline.ru/files/5/283/kotler\_keller\_-\_marketing\_management\_14th\_edition.pdf

Lamb, R., (2002). The Role of intellectual property and intangible assets in mergers and acquisitions. Intellectual Property Assets in Mergers and Acquisitions. L. Bryer and M. Simensky, John Wiley & Sons, Inc., New York, chapter II.

1. Leuthesser, L., (1988). Defining, measuring and managing brand equity: A conference summary Report #88 – 104. Marketing Science Institute. Cambridge MA

MaketLine, (2018). Global jewelry and watches. MarketLine industry profile.

Malhorta, N., Birks, D., (2007). Marketing research: An applied approach. Prentice Hall / Financial Times.

McFarland, (2017). The global luxury goods industry: the market. Xerfi Global.

1. Otonkue, A., Edu, B., Echeng, A., (2010). Accounting for Brands: Contemporary Issues and Alternative Options. Journal of Brand Management, Vol. 7 Issue: 1/2, pp.105-115

Pandora, (2017). The Pandora story. Retrieved from: http://www.pandora.net/en-ie/company/about/the-story

Pandora, (2018). Investor. Annual reports. Retrieved from: http://investor.en.pandora.net/annuals.cfm

Prokesch, S., (1989). Ford to buy Jaguar for $2.38 Billion. The New York Times Archive. Retrieved from: https://www.nytimes.com/1989/11/03/business/ford-to-buy-jaguar-for-2.38-billion.html

Raggio, R.D., Leone, R.P., (2008). Chasing brand value: Fully leveraging brand equity to maximize brand value. Journey of Brand Management Issue: 16(4): pp.248-263

Reuters, (2018). P/E ratio. Retrieved from: https://www.reuters.com/article/idUSSeekingAlpha406244420170414

Reuters, (2018). Tiffany & Co stock overview. Retrieved from: https://www.reuters.com/finance/stocks/overview/TIF.N

Reuters, (2018). Chow Tai Fook stock overview. Retrieved from: https://www.reuters.com/finance/stocks/overview/1929.HK

Reuters, (2018). Pandora stock overview. Retrieved from: https://www.reuters.com/finance/stocks/overview/PNDORA.CO

Richemont, (2018). Our businesses. Retrieved from: https://www.richemont.com/our-businesses.html

Reyneke, J., Abratt, R., Bick, G., (2014). What is your corporate brand worth? A guide to brand valuation approaches. South African Journal of Business Management. Vol. 45 Issue: 4, pp.1-10

Roberts, S., (2011). Brand Valuation: the methodologies. Intellectual Property Magazine, pp. 49-53

Royaltysource, (2018). Royalty rates. Retrieved from: https://www.royaltysource.com/

Salinas, G., (2009). International brand valuation manual. John Wiley & Sons Ltd

Salinas, G., Ambler, T., (2009). A taxonomy of brand valuation methodologies: how different types of methodologies can help to answer different types of questions. Marketing Science Institute, Special Report No. 08 - 204, Cambridge, MA

Schauten, M. B. V., (2008). Valuation, capital structure decisions and the cost of capital. Erasmus Research Institute of Management. RSM Erasmus University

1. Seetharaman,A., Zainal Azlan Bin Mohd Nadzir, Gunalan, S. (2001) A conceptual study on brand valuation, Journal of Product & Brand Management, Vol. 10 Issue: 4, pp.243-256

Sinclair, R., (2011). A rationale and proposed set of principles for brand valuation. Marketing Accountability Standard Board of the Marketing Accountability Foundation. Commissioned by ANA.

1. Sinclair, R., Keller, K., (2014). A case for brands as assets: acquired and internally developed. Journal of Brand Management. Vol. 21 Issue: 4, pp.286-302
2. Smith, G., (1997). Trademark Valuation, John Wiley & Sons, Inc., New York

Tiffany, (2018). Shareholder information. Annual reports. Retrieved from: http://investor.tiffany.com/financial-information/annual-reports

Tollington, T., (1999). The brand accounting side-show. The Journal of Product and Brand Management, Vol.8 Issue: 3, pp. 204–217

Trading Economics, (2018). United States federal corporate tax rate; Hong Kong corporate tax rate; Denmark corporate tax rate. Retrieved from: https://tradingeconomics.com/united-states/corporate-tax-rate; https://tradingeconomics.com/hong-kong/corporate-tax-rate; https://tradingeconomics.com/denmark/corporate-tax-rate

1. Truong, Y., Klink, R.R., Simmons, G., Grinstein, A., Palmer, M., (2017). Journal of Business Research. Vol. 70, pp.85-91
2. Wood, L., (2002). Brands and brand equity: definition and management. Management decision 38/9. MCB University Press.
3. Worthy, (2016). The premium of a brand: Cartier. Retrieved from: https://www.worthy.com/blog/for-what-its-worth/premium-brand-cartier

# Appendices



*Tiffany’s Market Risk Premium calculation*



*Chow Tai Fook’s Market Risk Premium calculation*



*Pandora’s Market Risk Premium calculation*



*Corporate tax rate*



*Inflation rate*



*Tiffany’s expected returns calculation*



*Chow Tai Fook’s expected returns calculation*



*Pandora’s expected returns calculation*

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*Licensing agreements’ details*



*P/E ratios*



*S-curve for Tiffany & Co Calculations*



*S-curve for Chow Tai Fook Calculations*



*S-curve for Pandora Calculations*