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Editorial

It is a pleasure to welcome you to the second 2017 issue of the *International Journal of Management and Economics* (volume 53). In this issue we offer six papers covering specific areas in management, finance, and economics. Four of them are based on original empirical research and the remaining two are of a theoretical and conceptual character. Geographically, there are four papers with a global, international context, one paper focuses on the US mortgage market, and another compares labor markets in the tourism sector of Poland and Spain.

The issue starts with a paper written by Dobrochna Augustyniak, entitled “Sources of Value Creation in Born Global Companies”, which concerns phenomenon of the rapid internationalization of small and medium size companies. The author aims at developing a theoretical framework to analyze the sources of value creation in the business models of newly established global companies. Such a framework provides a starting point, particularly for those readers who are interested in the empirical analysis of globally operating SMEs.

The second article focuses on the globalization and internationalization of businesses from a corporate social reasonability (CSR) perspective. Edyta Klosa and Danuta Kisperska-Moroń, in their paper, entitled “International Scope of Operations and the Nature of Supply Chain Members’ CSR Policy” focus on ethical and socially responsible business conduct. The authors analyze how the CSR philosophy might be disseminated among supply chain members and demonstrate the positive impact of the internationalization of company operations on the implementation of CSR.

The third paper, “External Knowledge Sourcing and Innovation Processes in Modern Economic Environment,” is written by Dorota Roszkowska, who argues that the development of new innovation models leads to important conclusions for organizations and economic policy. Nowadays, open innovation and co-innovation involve unlimited access to external knowledge as the key element of an innovation strategy. In such an environment competitive advantage is built not only on massive internal R&D investment, but also requires an appropriate network management and pro-innovative use of ecosystems based on external knowledge.

The next paper, “Deficiency Judgments as a Mortgage Pricing Factor”, written by Tomasz Pruszkowski, examines a specific dichotomy in the US legal system concerning
non-performing mortgages. In some states mortgage holders can file for a deficiency judgment if the proceeds from a foreclosure sale are insufficient to cover their mortgage debt, and in other states lenders are prohibited or severely restricted from pursuing the borrower. This difference in regulations constitutes a potential risk factor that should be adequately valued in the mortgage market. In other words, we should expect a higher cost of mortgages in those states where deficiency judgments are not allowed. Surprisingly, the author finds no statistically significant evidence of pricing differences between states with recourse or non-recourse legislation.

The fifth article reviews project finance literature, focusing on the area of financing large cruise vessels. Joanna Kizielewicz presents methods of raising funds for the construction of new tourist ships by international corporations. The paper includes an up-to-date analysis of this tourism sector and shows peculiarities related to this kind of investment. It also compares various financial instruments used by leading world corporations in the process of raising capital for their ventures.

The final paper of this issue, “The Perception of Job-related Motivators When Choosing a Career in the Tourism and Hospitality Industry. A Comparative Study Between Polish and Spanish Students” is written by Aleksandra Grobelna. This study presents the job-related motivators that tourism students find important when considering their future careers. Two groups of students (from Poland and Spain) were asked whether the factors that motivated them to select a career can be found in the tourism and hospitality industries of their respective countries. Both groups of students exhibited a marked divergence between these desirable motivators and their perception of the tourism and hospitality sector. The author concludes that the entire sector must work on its image as a potential employer in order to attract sufficient quality staff.

We hope that the variety of approaches and subjects included in the current issue will be of interest and inspiration for many readers!
Sources of Value Creation in Born Global Companies

Abstract

Research about the phenomenon of rapid internationalization of small and medium size companies has evolved over the last two decades. Nevertheless, questions about business models or value creation in born global enterprises are rarely addressed in the literature. The objective of this article is to develop a theoretical framework for analyzing the sources of value creation in the business models of international new ventures (INV) global companies, starting with adapting the model by Amit and Zott [2001, 2010] to early internationalizing venture. Current literature on international entrepreneurship, business models and value creation is also used as a basis for suggesting future empirical research recommendations.

Keywords: born global, business models, sources of value creation
JEL: F23

Introduction

It has been over 20 years since the first journal articles on the phenomenon of rapidly internationalizing entrepreneurial companies, referred to as “born global companies” [Rennie, 1993] or “international new ventures” [Oviatt, McDougall, 1994] were published.
Since then, a substantial body of research has intended to learn and analyzed the characteristics of these enterprises and aimed at explaining their behavior and international expansion. An emphasis on the entrepreneurial facet of rapid internationalization has contributed to the emergence of the International Entrepreneurship field of study, which focuses on small and medium companies (SMEs) entering foreign markets. This paper extends international business research by linking the notions of value creation and business model concept to existing knowledge about early internationalized ventures. A business model approach allows to analyze a born global company in the context of its relations with external entities and evaluate the process of value creation on a more systemic level. Consequently, the following research questions are formulated:

RQ1: What constitutes a business model of a born global company?
RQ2: What are the key sources of creating value in a business model of a born global company?

The literature on international entrepreneurship, business models and value creation was used to identify the key components of a born global company’s business model and its sources of value.

The article is organized as follows: we briefly present different views on the notion of value in the economy and management, using the work of Amit and Zott [2001, 2010]. Different attempts to integrate business model perspective and value creation in international entrepreneurship research are also discussed. The author concludes by proposing an interpretation of the business model concept in the context of born global companies and suggests further empirical research on the sources of value creation in these firms.

Despite the wealth of research related to early and rapid internationalization of the firms, much work is still needed. In today’s economy, characterized by widespread internet use and globalization, these firms are increasingly common [Cavusgil, Knight, 2015]. The new generation of entrepreneurs, raised in this environment in which access to internet and further network formation is common, typically perceives the world as market with their products. This approach has significant implications for national economies: born global companies offer potential growth and employment, enable transfer of knowledge, and co-create high-value-added activity clusters. They are forming new global industries, creating stocks of skills, knowledge, and innovation as well as highlight their country’s potential and positive image as a trade and investment partner [Eurofund, 2012].

Typically, born global companies, as newly established units struggle with a lack of resources and experience. Yet managing an international presence is demanding and requires an entrepreneurial orientation characterized by pro-activeness, innovativeness, perseverance and passion [Zahra, 2005; Gerschewski et al., 2014, 2016; Cavusgil, Knight, 2015; Zander et al., 2015]. Overcoming the obstacles and meeting the demands and requirements is often achieved by concentrating on high quality products tailored to specific client needs and enabling access to vital resources through networks [Cavusgil, Knight, 2015]. The dynamic capabilities perspective, common in the literature identifies organizational learning as an effective driver of early internationalization [Knight,
Cavusgil, 2005; Weerawardena et al., 2007]. In the light of limited resources and a highly competitive, international environment, born globals need to carefully evaluate their performance financially, and also in terms of operational and organizational effectiveness [Gerschewski, Xiao, 2015]. Many authors also point to a predominance of differentiation and focus strategies in this group of companies [Zahra, 2005; Zander et al., 2015]. Targeting homogenous groups of customers in global niche markets allows them to exploit economies of scale and lower costs of adaptation.

This article's contribution to the current field literature including international business and international entrepreneurship literature lies in analyzing – in combination – the born global firm, its business model, and then sources of value creation. We therefore reveal key elements of the sources of value bearing in mind the international environment and flexibility of the company. The research has also some practical implications, guiding the managers of small and medium international companies how to improve the mechanism of value creation in their enterprises.

The Concept of Value

Cleverly designed value creation processes and value capture processes allow companies to build sustainable competitive advantage and constitute the basis for achieving financial success [Di Gregorio, 2013]. But value itself is an ambiguous concept. The economic literature addresses value in many different contexts and frameworks, ranging from strategy to entrepreneurship, economics and marketing [Di Gregorio, 2013]. For example, financial value can be interpreted as the financial value of the enterprise or a brand; the value appropriated to the customer or captured by a company in a transaction. Thus, when considering the concept of a value, one should specify the type of value and stakeholder that is addressed.

Baier, as cited in Haksever et al. broadly define value as “the capacity of a good, service or activity to satisfy a need or provide a benefit to a person or legal entity” [2004, p. 292] They also distinguish three dimensions of created value: financial, nonfinancial and time (that is, benefits realization rate, saved time and the time frame during which the benefits are obtained). Another interesting interpretation of value is presented by Di Gregorio, who defines it as “potential or realized utility within a population” [2013, p. 40], which addresses the wide range of users to whom value could be targeted and also embraces potential value that could be captured in the future. Utilized value should be therefore understood as captured value, which is usually smaller than created value.

Concentrating on the value created by an enterprise for the customer requires further clarification. Regarding the strategy and process of creating value inherent to a company, Bowman and Ambrosini [2000] emphasize the distinction between use value and exchange
value. Use value is the value of a good perceived by the customer. It is, therefore subjective and based on customer beliefs, needs, unique experiences, expectations, wishes and wants. Exchange value is the price of a good that the customer agrees to pay when a transaction takes place. Although the organization captures value at the moment of exchange, use value is equally important because of its influence on a consumer surplus (translation of use value of a good/service and the price paid for it). Customers will eventually choose products that offer the largest consumer surplus [Bowman, Ambrosini, 2000].

The question of value creation is related to a fundamental economic issue: the creative transformation of inputs into outputs performed by the enterprise. Outputs should be valuable for potential customers, but also, according to the resource-based theory of a firm, a high value of the inputs (resources) is needed to compete successfully in the market [Barney, 1991]. Given the importance of valuable resources, it is essential to note that the value is not created by (non-human) resources itself. Rather, tangible and intangible resources are deployed by individuals and organizations in the process of adding the value [Di Gregorio, 2013; Spender, 2014]. Consequently, entrepreneurial labor capable of managing the transformation of resource inputs is crucial in use value creation [Bowman, Ambrosini, 2000].

Business Models and Sources of Value

Value is a core business model concept that can be noticed to be used in many researches. A business model is often referred as the firm’s logic for value creation and commercialization [Osterwalder et al., 2005]. DaSilva and Trkman [2014] note that a business model is about generating value through transactions, taking advantage of specific combinations of resources. As such, it reflects the implementation of a company’s strategy within a specific value network and time framework. There are different views on the business model elements, but many of them also directly refer to value creation, delivery and capture (exemplary propositions are presented in table 1; for an extensive review see Osterwalder et al. [2005] and Richardson [2008]).

Other theoretical propositions analyze the subject from an activity system perspective. Amit and Zott define the business model as “a system of interdependent activities that transcends the focal firm and spans its boundaries” [2010, p. 216], which depicts “the content, structure and governance of transactions designed so as to create value through the exploration of business activities” [Zott, Amit, 2001, p. 511]. This view emphasizes the performance of transactions and activities but this requires resources and particular capabilities to be in place. As a result, the authors distinguish between three basic elements of the business model:
• activity system content – which activities will be performed?
• activity system structure – how these activities are linked? (connections and hierarchy)
• activity system governance – who will perform these activities?

<table>
<thead>
<tr>
<th>Source</th>
<th>Elements of a business model</th>
</tr>
</thead>
</table>
| Chesbrough and Rosenbloom 2002 | - Value proposition  
|                         | - Market segment  
|                         | - Value chain  
|                         | - Cost structure and profit potential  
|                         | - Value network  
|                         | - Competitive strategy  |
| Osterwalder et al. 2005  | - Value proposition  
|                         | - Target customer  
|                         | - Distribution channel  
|                         | - Relationship with customers  
|                         | - Value configuration  
|                         | - Core competency  
|                         | - Partner network  
|                         | - Cost structure  
|                         | - Revenue mode  |
| Richardson 2008         | - Value proposition  
|                         | - Value creation and delivery system  
|                         | - Value capture  |

Source: own elaboration.

Onetti et al. [2012] sought to integrate different theoretical perspectives of business models and incorporate into this concept the notion of location/internationalization. Based on an extensive body of literature, the authors observe that existing definitions of business models and its elements vary greatly. Among most cited components, there are: processes/activities/value chain, customer (relationship/interface) and value networks (partners/actors/suppliers/alliances). We recognize that for new tech-based firms internationalization is a multidimensional, relational and knowledge-based augmenting process, and for these companies entrepreneurship, innovation and internationalization should be seen holistically\(^3\). Indeed, some authors note, internationalization itself is kind of innovation for SMEs [Veglio, Zucchella, 2015]. As a result, the business model is defined in relation to three areas of managerial decisions/activities:
• focus (the selection of activities),
• modus (internal organization and value network design), and
• locus (location of activities).
This framework allows geography and networks to be included as additional dimensions of business model research. It shares some characteristics with the previously cited activity system perspective, although there are differences around attributing outsource/insource decisions and incorporating the geographical configuration of value chain in the second model. The business model perspective developed by Onetti et al. [2012] seems to be more accurate for analyzing international new ventures (INV), because of its high level of internationalization and the role of foreign markets in their strategy.

Referring to the frameworks of entrepreneurship and strategic management research (namely: strategic network theory, value chain, transaction cost economics, Schumpeterian creative destruction and a resource-based theory of the firm), Amit and Zott [2001, 2010] propose a sources of value creation model in e-business, which is also applicable to other enterprise types. Total value is understood as “the sum of the values appropriated by all the participants in a business model, over all transactions that the business model enables” [Amit, Zott, 2001, p. 515]. The share of appropriated value is divided in a process of bargaining between participants [Brandenburger, Stuart, 1996].

Instead of treating the firm as a unit for analysis, Amit and Zott suggest that a business model would be more appropriate for value creation analyses because it considers the firm together with its environment, taking into account value that emerge from the network of companies and not only the company itself. This proposed business model is consistent with other theoretical frameworks of entrepreneurship and strategic management that permits the role of partner and customer networks to be considered in value co-creation [Storbacka et al., 2012] and to include other stakeholder perspectives (e.g. society) that may help in constructing more sustainable model [Yang et al., 2017].

Based on theoretical research and the analysis of 59 e-business companies, Amit and Zott [2001] identified four main dimensions essential to a firm’s value creating potential: efficiency, novelty, lock-in and complementarities. Efficiency refers to reorganizing activities within the business model to reduce transaction costs. That could be achieved, e.g., by internalizing some external processes or reducing information asymmetries through implementation of a common data system in the value chain. Novelty refers to product, process, organization or marketing innovation, and also a new structure of activities embedded in new business methods. Value creating potential stems from attracting customers or other stakeholders using novel solutions, and retaining them – referred to as a lock-in. There are many ways to encourage customers to repeat transactions or partners to deepen relationships, including loyalty programs, dominant design proprietary standards, personalization and customization of offerings, building communities, and positive network externalities. Enhancing value generation by complementarities is based on bundling different activities, assets, outputs or technologies to increase revenue. These four dimensions are interdependent and could further strengthen each other.
Some authors attempt to incorporate value taken from a business model perspective into International Entrepreneurship. The following part briefly presents existing research in this field.

**Business Models and Value Creation in International Entrepreneurship Research**

With a few exceptions [Mets, Kelli, 2011; Servantie, 2011; Lee et al., 2012; Johansson, Abrahamsson, 2014; Bouncken et al., 2015], rapid internationalization of SMEs has not been studied in the context of the evolution of their business models. The differences between the domestic and international environment suggests, that the company may decide about an adjusted business model or implementation of parallel models when entering foreign markets. Born global companies can choose from their beginning a business model suitable for a global niche market.

Most researchers concentrate on evolution of the business model in the course of internationalization [Servantie, 2011; Lee et al., 2012] or internationalization through business model evolution [Bouncken et al., 2015]. As noted by Servantie [2011], studying the process of learning and adjusting the business model allow to understand why and how businesses internationalize so early, as well as their international competitive advantages. Using the GRS framework, which distinguishes three main aspects of a business model: generation, remuneration and sharing value, the author analyzed six French born global companies. Exploratory case studies were used to construct a process based model of early and rapid internationalization. The conclusions are consistent with the born global literature. First, early internationalization is imposed by the nature of the target market and linked to the choice of partners in value network. Second, the author highlights the important role of networks in international entrepreneurship, as well as earlier experience and project leaders knowledge about the industry, which enable a value network creation. Lastly, born global companies are subcontracting non-core activities and maintaining control over all activities related to their know-how, innovation and business development strategy.

Bouncken, Muench, Kraus [2015] have also studied the role of business model innovation in the internationalization process of born global companies. They define the business model as “a strategic and dynamic value-creation process among a value network that is characterized by the way the type of product or service is linked to a particular group of customers using a specific communication and delivery method and accelerates, by adaptation, the early internationalization process” [Bouncken et al., 2015, p. 250]. They rely on the proposition presented by Rask [2014], who distinguished four types of business models, characterized by different levels of market and production globalization (domestic-based,
export-based, import-based, semi-global) and possible ways of internationalization through business-model innovation. While the adaptability and flexibility of the business model is emphasized, it is also suggested that the competitive advantage of born global firms could result from repeated implementation of the same business model in many countries and continuous learning experienced during this process. Although concentrated on the early stages of MNC’s development, research conducted by Dunford et al. [2010] describes in detail how replication worked in case of rapid internationalization of ING Direct. This was a complex venture, as the initial assumptions and vision of a business model were verified over time and evolved with the accumulation of knowledge. The first stage of this process was establishing the core business model elements (called “clarification”). Because of the novelty of the concept it was developed, adjusted and improved by doing, along with the concept of entering into foreign markets. Together with changes in the generic business model, it was also adjusted to local conditions (“localization”). New subsidiaries were encouraged to try new processes and products (“experimentation”) and then share, copy and adopt ideas and solutions, that emerged from learnings in other countries (“co-option”). This business model vision illustrates an evolutionary approach and stresses the need of organizational learning in an international context.

Besides the researchers’ interest in paths of internationalization and business model evolution, some of them tried to find distinct business model types adopted by born global ventures. Mets and Kelli [2011] identified three business models for globalizing SMEs: replication BM (copying a domestic local model on global market), leverage BM (having their own sales channel on the internet and/or mobile environment) and freemium BM (offering some basic functionality for free and charging customers for premium options). In the empirical part, they performed a case study describing three companies linked to those business models, whose ways of becoming global differed greatly. It is worth noting that some companies among new knowledge-intensive industries were using traditional business models and various forms of customer engagement in creating value were also popular among studied enterprises. The importance of knowledge accumulation and learning was stressed, although there were differences between the time companies expended on these processes (depending mainly on the economy and industry).

In a different study, Johansson and Abrahamsson [2014] matched the business model evolution through internationalization process with sources of value in born global companies. They found that firms used business model innovation to grow internationally and navigate value chains. Based on three exploratory case studies, the authors argued that the initial main source of value was novelty. In the second stage of company development partnerships and the capabilities of building a value network, paired with a deep understanding of user needs (partners’ and customers’ lock-in) became critical. The authors also emphasize the role of dynamic capabilities, like sensing capability, entrepreneurial capability and relational capability in business model innovation and internationalization. Another vital insight is that firms often exploit more than one business model simultaneously, and
that more knowledge is needed about how resource-constrained born global firms balance different parallel business models.

Above mentioned research offers a qualitative overview of the relations between internationalization and a company’s business model. Some recurring topics could be detected, such as the role of value networks in internationalization, open innovation, organizational learning and replication versus multiple business models management. However, because of the exploratory character of these studies, there is a need for further research of this field to test empirically emerging theories.

**Sources of Value Creation in Born Global Companies**

The company’s business model determines the design of the value network and its geographical configuration [Onetti et al., 2012], affecting the speed of internationalization [Jensen, Petersen, 2014]. Since born global firms have a strong international presence and often play the role of technology brokers in multiple network relations that they manage, use of a business model to analyze them seems appropriate. It is also important to know where and how new international enterprises create value by developing and protecting their unique intangible assets [Zahra, 2005].

The born global company’s business model *focus* [see Onetti et al., 2012], usually pursues global niche markets, sometimes offering one unique product [Weerawardena et al., 2007]. The choice of activities determines the firm’s competitive environment, and can be used to avoid positioning itself directly against large MNCs. Born globals are found in different industries, including both low-tech [Rennie, 1993; Bell et al., 2001] and product/services that are knowledge-intensive and innovative [Weerawardena et al., 2007]. There is also evidence suggesting that the structural characteristics of new industries (like global competence, short life cycles and its dynamic nature) are fostering rapid and early internationalization [Andersson et al., 2014]. Additionally, low costs of information, adaptation and transportation foster rapid international growth [Hennart, 2014; Verbeke et al., 2014].

As far as the *modus* dimension of the business model is concerned, born global companies are concentrating on product or service development, outsourcing processes, that are less important, due to the lack of resources. It is vital to balance insourcing and outsourcing relations. Access to information and complementary resources or capabilities are therefore typically assured through partnerships and strategic alliances, which allow an SME to compete globally. The base for building a company’s value network is usually management experience in a particular industry and/or international markets. New communication technologies and the internet are important in establishing and coordinating relations and activities across the globe.
Key aspects of the *locus* dimensions are “make or buy decisions”, the scope and direction of internationalization and foreign market entry modes. The choice of activities to be internalized depends mainly on controlled resources and competences. Offered products or services determine the direction of international expansion: first, born global companies tend to choose leading markets in terms of local niche size and infrastructure needed for sales. In case of globally focused strategies, physical distance seems to be less relevant due to a high homogeneity of customer demand in these niches [Hennart, 2014]. The scope of foreign operations is determined by the level of global industry integration [Kuivalainen et al., 2012]. There is no agreement because of which entry modes are preferred by born global companies. Knight and Cavusgil [2005, 2015] emphasize that originally the term “born global” concerned new ventures that internationalized rapidly, mainly through exporting. However, Zahra [2005] suggests that new enterprises often enter foreign markets using higher order modes of entry. The choice of entry mode is also strongly influenced by industry characteristics [Andersson et al., 2014]. Clearly, these companies have a strong international orientation and, from inception, do not restrict themselves to local demand and instead enter a considerable number of foreign markets.

**TABLE 2. Sources of value in the business model of a born global company**

<table>
<thead>
<tr>
<th>Value driver</th>
<th>Features of a born global company</th>
</tr>
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</table>
| Novelty      | – innovative and proactive management  
|              | – extensive usage of information and communication technologies  
|              | – customer involvement in value creation  
|              | – learning from foreign markets and networks |
| Lock-in      | – partnerships and alliances  
|              | – addressing particular user needs |
| Complementarities | – need to efficiently manage cross-border processes  
|              | – complementarities between intangible assets |
| Efficiency   | – resource constraints  
|              | – important role of technology, internationalization and networks in minimizing costs  
|              | – exploiting secondary value-adding opportunities |
| Flexibility  | – adaptation of the business model with time and scope of internationalization |

**Source:** own elaboration based on the work of Amit and Zott [2001, 2010] and others.

Existing literature on born globals helps to describe value drivers in the context of rapidly internationalizing new ventures (Table 1) and propose recommendations for further empirical research. In terms of novelty, it is argued that these companies are characterized by innovative and proactive management [Rennie, 1993; Knight, Cavusgil, 2005; Zander et al., 2015] and that early internationalization is facilitated by innovation [Weerawardena et al., 2007]. Innovative management means implementation of new processes and products
as well as taking advantage of new communication and IT technologies to design and governance activity system. Innovation could also lead to new ways of delivering value to the customer or service infusion, e.g., linking a hardware platform and related services. Frequent customer involvement in value creation [Mets, Kelli, 2011] helps to customize offers and adjust them to user needs. In addition, Zahra [2005] notes that new international ventures learn from other markets about technological trends and competences. An illustration of this process is the phenomenon of learning by exporting [Castellani, 2002; Mińska-Struzik, 2014]. Organizational learning is also a vital issue in born global research, as these companies may benefit from accelerated learning due to its rapid and wide internationalization. It bears mentioning that products offered are the result of both internal (R&D activities, which also define absorptive capacity) and external learning (from served markets and networks) [Weerawardena et al., 2007].

As far as the lock-in is concerned, the importance of relations with suppliers and other business partners should be stressed. Born global companies are located in sub-national clusters or networks and are commonly engaged in strategic alliances [Oviatt, McDougall, 1997]. The stronger the business relationships, the greater the switching costs. Moreover, developed international networks allow a new company to access resources or information (which could be too expensive to buy otherwise), facilitate the execution of a strategy and offset limited legitimacy and credibility [Fernhaber, McDougall, 2015]. Early internationalized ventures often pursue differentiation or a niche strategy [Knight, Cavusgil, 2005], relying on their understanding of consumer needs [Rennie, 1993] and unique offerings [Oviatt, McDougall, 1997]. If the clients feel satisfied with customized offerings they may be more resistant to switch product suppliers.

As with every type of company, born global SMEs should look for complementarities in bundling activities, products, processes and assets. Because of resource scarcity, there is a need to tightly coordinate organizational processes. A born global can adopt multiple modes of managing cross-border operations, e.g., to balance the risk [Oviatt, McDougall, 1997]. The complementarities between intangible assets, like entrepreneurial orientation and prior international experience of the founders/managers are also worth consideration.

Although most born global firms do not compete through costs, the role of efficiency in creating value should not be neglected as resource efficiency is vital in the international context. This is the consequence of the liability of foreignness experienced by international new ventures [Fernhaber, McDougall, 2015]. Rapidly internationalizing companies are known for leveraging technology to minimize the costs of communication and market data access [Knight, Cavusgil, 2005]. They also leverage internationalization itself to minimize the cost of engaging highly valuable resources, like patents [Oviatt, McDougall, 1997]. As mentioned earlier, different forms of alliances and partnerships ensure lower cost of resources access [Zahra, 2005]. Enhancing efficiency and taking advantage of complementarities may be also achieved by stakeholder engagement in exploiting secondary (that is: outside the main business) value-capturing opportunities. These include: adding extra
functions, identifying benefits for third parties, exploiting economies of scale, offering cross-sells or taking advantage of user involvement in developing products [Kesting, Günzel-Jensen, 2015]. The possibility of adopting such solutions is industry-dependent. Apart from the four value drivers specified, there is one more important element – the flexibility of the model and strategic adaptation capability [Fernhaber, McDougall, 2015]. Even if a new venture chooses the replication of a model as its internationalization strategy, it is through trial and error that the logic of that model is finally formed [Dunford et al., 2010]. Experimentation is therefore an essential condition of finding the successful business model. Moreover, born global firms are likely to be forced to innovate in this area (that is: focus, modus and locus of a business model) to remain competitive globally. This may require changing some elements in the current model and adapting new, parallel, models. A successful business model is prone to be copied by competitors, that is why a readiness to adapt and modify it (in line with a firm’s strategy) is necessary to ensure sustained value creation [Achtenhagen et al., 2013; DaSilva, Trkman, 2014]. As Amit and Zott [2012] note, systemic change is much harder to be imitated than an isolated process or product. One factor influencing business model change is technology development. Breakthroughs in technology facilitated the emergence of born globals’ business models dependent on low costs of communication and transportation. As enterprises develop new technologies, they may need a new business model to unlock its potential to create the value [Yang et al., 2017].

Although born global companies originate from different industries, they exhibit shared traits inherent in rapid and early international expansion. It seems that they also share common characteristics of value sources. To advance this theory, we present the following research questions:

**RQ1:** How born global companies use customer involvement and a user-centered approach to develop innovative products and services in their market niches?

**RQ2:** How born global companies learn from foreign markets and networks how to develop process and business model innovations?

**RQ3:** Which secondary value-capturing opportunities are exploited by born global companies and how does it vary across industries?

**RQ4:** How born global companies adapt their business model in the course of internationalization? Do they replicate and adapt their business model or manage multiple business models (in a scarce resource environment)?
Conclusions

Born global companies are entrepreneurial, dynamic and innovative, and the business model perspective allows us to meaningfully analyze their behavior and sources of value creation. Early and rapidly internationalizing firms incorporate all four value drivers: novelty that facilitates gaining new customers and business partners globally; lock-in, to retain them; efficiency and complementarities – to sustain a competitive quality/price ratio; and cost control in the face of scarce resources. Furthermore, business model innovation should be crucial to the organizational learning process and search for new value creation opportunities.

Despite two decades of researching the international entrepreneurship, there is still a disagreement between the definition of a born global company, and only a few studies that concern the business models of early internationalized SMEs and value creation drivers. Further empirical research of those questions is needed. Such research should focus on identifying more specific components of the four value drivers and determine which one is most critical for born global companies. Moreover, the concept of business model innovation in the context of international entrepreneurship needs further clarification. Consequently, although the business model field is relatively young and still evolving, it offers a new perspective on companies and their activities. Because of the fact that this area is also very potent and interesting for researchers, more research on these issues is definitely forthcoming.

Notes

1 Author’s email address: dobrochna.augustyniak@ue.poznan.pl
2 Many terms are used in the literature to address these companies; among the most recognizable are “born global” [Rennie, 1993; Knight, Cavusgil, 2005; Cavusgil, Knight, 2015] and “international new venture” [Oviatt, McDougall, 1994, 1997]. In this study all early and rapidly internationalizing SMEs are called born globals, although there are differences between them (e.g., the scope or primary mode of their foreign market entry) [Cavusgil, Knight, 2015; Zander et al., 2015].
3 Although they concentrate on new technology-based firms, they believe that the proposed framework generally applies beyond those firms.
4 Knowledge-intensive outcomes mean here products/services embedded with a high technological or non-technological knowledge content (it could be product design, creativity, deep understanding of consumer needs, etc.). Similarly, innovation is not restricted to technological changes, and also embraces other forms of novelty, like marketing innovation.
References


Sources of Value Creation in Born Global Companies


International Scope of Operations and the Nature of Supply Chain Members’ CSR Policy

Abstract

Dynamic relations among supply chain members have forced some changes in those members’ business philosophy. One such change involves Corporate Social Responsibility (CSR), which posits an alternative attitude for companies towards business, the natural environment and society. The supply chain structure provides an excellent framework to disseminate the CSR idea among other members. That process is affected by different factors, including the level of internationalization of a given business. The purpose of this paper is to specify relations between the international nature of operations and CSR approach in 150 Polish companies. To better understand these relations a literature review and statistical analysis are conducted. Methods used in the quantitative analysis are a frequency analysis (with usage of One-Sample Kolmogorov-Smirnov and One-Sample Chi-Square tests) and a correlation analysis (Spearman ratio). This research addresses a gap concerning international aspects of supply chain operations and its CSR sensitivity. The results can be used to support supply chain decision makers when applying CSR in their companies as well as can be an outgoing source of data for further, more detailed research.
Keywords: supply chain management, international supply chain, corporate social responsibility, sustainability
JEL: M19

Introduction

Corporate Social Responsibility (CSR) is a new and increasingly important concept for any area of business including logistics [Seuring, Sarkis, Muller, Rao, 2008, pp. 1545–1551]. Social responsibility of supply chain members is also becoming more important for European companies and political authorities. Sustainable supply chain management expresses the concept of member organizations bearing responsibility for the impact of their decisions on society and the environment, requiring more transparent and ethical behavior [Spence, Bourlakis, 2009, pp. 291–302]. In international operations CSR contributes to sustainable development, including improving global health and welfare. As it:

- takes into account the expectations of all supply chain international stakeholders;
- is in compliance with applicable laws and consistent with international norms of behavior;
- is integrated throughout organizations operating in a global supply chain and in their relationships.

It is not possible for such complex challenges to be faced by single companies acting alone. More interaction is therefore needed among the members of supply chain. The large body of academic literature on inter-organizational co-operation focuses predominantly on market-oriented relationships such as corporate economic strategy, strategic alliances, or collaborative leadership, with little concern about CSR, sustainability, or stakeholder engagement beyond their economic implications [Murray, Haynes, Hudson, 2010, pp. 161–177]. There is limited research focusing on international aspects of supply chain operations and its CSR sensitivity.

This paper discusses the problems of interactions beyond the economic domain, concentrating on CSR and international sustainability. The CSR concept includes a wide range of issues involved in the relationship between a company’s actions and those affected by them. It can be assumed that there are different forms of “responsible management” when international aspects of supply chain operations are considered. Below, we first examine the literature focusing on key aspects of CSR, including its application to supply chains. Another conceptual section follows, in which issues of international operations of supply chains are discussed, particularly with respect to their social responsibility. In the remainder of the paper our research methodology is presented and our research findings are discussed.
Corporate Social Responsibility Concept in Supply Chains

CSR encompasses a wide range of activities that include product safety, community involvement, stakeholder engagement, and environmental management. The contemporary concept of CSR has two main characteristics [Andersen, Skjoett-Larsen, 2009, pp. 75–86]:
• it describes the relationship between business and the larger society, and
• it refers to a company’s voluntary activities in the areas of environmental and social issues.

The difficulties with clear definition of CSR often stem from differences in size, products, profitability, resources, societal impacts, etc. of companies [Carroll, Buholtz, 2000] Moreover, CSR is not the domain of an individual company; it encompasses the entire supply chain. Some key actors in the supply chain, such as large corporations, take responsibility for the inter-firm division of labor and specific participants’ capacities to upgrade their activities. In that sense, CSR is part of supply chain “governance” [Gereffi, 2001, pp. 30–40].

The introduction and monitoring of CSR targets in the supply chain is relatively new, especially in relation to the ‘upstream’ components of the supply chain when applied to a business-to-business context [Vaaland, Heide, Grønhaug, 2008, pp. 927–953]. According to the literature, several factors push supplier-buyer companies to adopt CSR, many of which are driven by the concern over lost reputation ‘brand image, sales, access to markets and financial investments’ [Cruz, 2008, pp. 1005–1031].

CSR in International Supply Chains


International relationships of companies in supply chains are often quite complex, because sometimes they involve parties with similar interests or stakes that do not always share values or objectives. Forms of interactions in international supply chains can also vary, ranging from specific time-bound alliances to long-term partnerships. The literature suggests that the nature of collaboration and its form depends on the number and type of organizations involved (business, NGO, and government) and the motivations of each partner [Cropper, Ebers, Huxham, Smith Ring, 2008]. The nature of this relationship can be described using three main characteristics:
• content (information and resource flows),
• governance mechanisms (such as the degree of trust, contracts and other controls),
• structure (the diversity, intensity, and clustering of relationships within a collaboration).
In international relationships a number of common themes can be identified as potential bases for “collaborative advantage”, including: improved access to resources, risk sharing, increased efficiency, co-ordination and seamlessness between service providers and organizational or industrial learning [Huxham, Vangen, 2005]. Huxham and Vangen [2005] also identify “the moral imperative” as a rationale for collaboration, which denotes “the really important issues that the society faces – poverty, crime, drug abuse, conflict, health promotion, economic development and so on – [that] cannot be tackled by any organization acting alone”. Those issues are part of the CSR concept, particularly when applied to intensive interactions in international supply chains.

Governance systems can control supply chain operations over long distances without exercising ownership [Jenkins, 2001]. Most often, it is the company or corporation in a developed market economy that has the major influence on an international supply chain. Alternatively, these can be also a large retailer and brand-name firms. The power of these organizations stems from the resources they control and their market power [Andersen, Skjoett-Larsen, 2009, pp. 75–86].

**Research Methodology**

The purpose of the research is to determine whether there are links between international (or domestic) nature of operations and CSR approach of surveyed companies, and, if so, to assess the strength of those relations. In particular, three research questions are considered:

- RQ1: Depending on the level of internationalization, what main CSR principles are included in company’s management system?
- RQ2: Depending on the level of internationalization, are there any incentives motivating implementation of the CSR concept?
- RQ3: Depending on the level of internationalization, what specific processes support implementation of the CSR concept?

We investigate supply chain members’ activities as they relate to achieving their environmental, social and governance goals using standardized interviews with 150 managers conducted in Poland. The interviews were undertaken as a part of broader research project finished in 2015. The 150 companies chosen had to be accessible, willing to participate in the interviews and able to demonstrate CSR-related activities (in order to provide every answer in the questionnaire). The interviews were conducted by using self-administered, paper questionnaires. While the questionnaire was extensive, for purposes of this paper only a part of it was selected for further exploration. Answers were grouped to represent relevant variables and included: sample basic features, i.e., type of business activity, company size, market experience, percent share of foreign capital, sales and supply (6 variables);
• aspects of implementation of CSR principles into the company’s general management system (8 variables);
• incentives motivating implementation of CSR (1 variable);
• practices supporting implementation of CSR (7 variables).

Variables related to type of business activity, company’s size, and market experience were measured in nominal scale and percent shares of foreign capital, sales and supply – in interval scale. For those variables frequency (percentage) of answers was explored and also Chi-square and one-sample Kolmogorov-Smirnov tests were used to investigate its distribution.

The remaining variables were measured in a 5-point ordinal scale, i.e., in the questionnaire the respondents were asked to choose one of five answers, demonstrating how often they use different CSR principles and practices in their companies. These options included: ‘never’ (1), ‘seldom’ (2), ‘from time to time’ (3), ‘often’ (4), and ‘always’ (5). Frequency (in percentage) of received responses was then analyzed and one-sample Chi-square test was used to analyze their distribution. Further quantitative analysis was conducted to determine relationships between selected variables. To assess those relations Spearman ratio (R) was used (statistical significance ≤0,05) because of nominal and quantitative scales used in a survey. The analysis was conducted with the support of IBM SPSS Statistics tool, ver. 22.0 as well as Microsoft Excel application.

**Sample Characteristics**

As mentioned above, the research was conducted relying on information obtained from 150 managers in selected Polish companies. In the initial part of the survey some basic descriptors of those entities were provided.

First, the type of business activity was considered. About 27% of the companies in the sample are manufacturers, about 30% – trading companies, and almost 43% – service providers. The share of service providers is slightly higher than other companies, however, statistically significant result of Chi-square test (p≤0.05) indicated that the share of those business within the sample is rather equal.

The sample included companies of different sizes (measured by the number of their employees), i.e., small (from 20 to employees), medium (from 50 to 249 employees) and large (250 employees and more). The analysis showed that small companies prevail within the sample (about 55%), medium companies constituted more than 25% and large around 19%. Result of Chi-square test (p ≤ 0.05) confirmed that the shares of those three companies types are significantly different.

The market experience of the investigated entities was measured by the number of years they conducted their businesses, i.e., 1 to 5 years (limited experience), 6 to 19 years...
(medium experience), and 20 years or more (extensive experience). The results of the analysis showed that about 31% of the companies within the sample had limited market experience, 41% – medium, and 28% – extensive. Chi-square test \((p \leq 0.05)\) confirmed that the shares of those three groups of companies are significantly equal.

Finally, to assess the level of a company’s’ internationalization three criteria were considered:

- percentage of foreign sales in their total sales,
- percentage of foreign supply in their total supply, and
- percent of foreign capital in their organizations.

The initial quantitative analysis implied that only 80 of the enterprises have foreign customers, suppliers or capital invested. In-depth analysis of those 80 companies demonstrated that their level of internationalization is relatively low (Figure 1). One-sample Kolmogorov-Smirnov indicated that the distribution of all three investigated variables is not normal \((p \leq 0.05)\).

**FIGURE 1.** Internationalization level of the surveyed companies according to their share of foreign capital, sales and/or supply

In particular, Figure 1 demonstrates cumulative shares of foreign capital, sales and supply in 80 companies within the sample (the companies were also presented by their percent share in the sample). It reveals that for more than half of the examined companies the share of foreign customers, suppliers and/or capital invested was below 20%. Consequently, in over 56% of the companies, the share of foreign capital was less than 9%. However, it is worth noting that 18% of examined companies were almost entirely owned by foreign capital. Despite a relatively low share of foreign sales and supply, the companies
tend to rely more on foreign suppliers than customers. For example, the percentage of foreign customers was less than 10% for 40% of companies and less than 20% for 16% of cases, the percentage of foreign supply was correspondingly 19% and 31%. Also, the percentage of companies with foreign supply share between 20 and 40% was about 5% higher than in the case of foreign sales. These results indicate that the analyzed companies tend to purchase more supplies than they sell their products abroad.

Although the initial research showed that almost half of the enterprises in the sample considered conducting entirely domestic businesses, and the remaining ones demonstrate a relatively low level of internationalization, it appears that such a sample structure provides a convenient opportunity to conduct comparative analysis and obtain meaningful results.

The Relationship between CSR Principles Included in a Company’s Management System and the Level of Internationalization

To investigate the level of implementation of CSR rules in all sampled companies, their managers were asked whether:

- Q1. The management takes into consideration the sustainability and CSR concept when establishing its strategic goals?
- Q2. The company’s management system considers the following principles of CSR:
  - Q2.1. Accountability,
  - Q2.2. Transparency,
  - Q2.3. Ethical behavior,
  - Q2.4. Respect for stakeholder interests,
  - Q2.5. Respect for the rule of law,
  - Q2.6. Respect for international norms of behavior,
  - Q2.7. Respect for human rights

Distributions of the data in correlation with the variables mentioned above revealed statistically significant differences in their frequencies (according to one-sample Chi-Square test p = 0.000 for every variable). The answers for the first question indicated the average level of awareness of CSR importance (Figure 2). More than 38% of respondents stated that company management considers sustainability and CSR when establishing its strategic goals from time to time, and 34% do it often. About three-quarter of respondents confirmed the presence of CSR rules in their decision-making process, versus only 1% of managers who answered ‘never’ and 13% responding ‘seldom’.
The respondents answered more detailed questions about implementing specific CSR principles into their companies’ management systems. The results showed the CSR rules that are often or always incorporated by management into their organizations (Figure 3).
Specifically, answers to question 2 were in affirmative for: accountability – 75%, transparency – 74%, ethical behavior – 82%, respect for stakeholder interests – 85%, respect for the rule of law – 88%, respect for international norms of behavior – 65%, respect for human rights – 80%. It appears that some rules of CSR are perceived as more important than the others. While 88% of managers are very careful about respecting the rule of law, only 65% comply with international norms of behavior. The relatively low level of internationalization of most companies and domestic character of their business may not motivate them to comply with international regulations and standards.

To identify the existence and strength of the relationship between CSR principles embedded in companies’ management systems and their level of internationalization, the Spearman ratio was used (Table 1). In Table 1 Spearman ratios from 0.20 to 0.29 are marked by a light grey shadow and ratios of 0.30 or more by dark grey shadows. Only statistically significant results (p ≤ 0.05) were used for further analysis. The results indicate that management of a company considers sustainability and CSR when establishing its strategic goals generally more often when the share of foreign capital, sales and supply increases.

**TABLE 1. The relationship between CSR principles included in a company’s management system and the level of internationalization**

<table>
<thead>
<tr>
<th>The percentage of foreign capital</th>
<th>The percentage of foreign sales</th>
<th>The percentage of foreign supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio p</td>
<td>Ratio P</td>
<td>Ratio p</td>
</tr>
<tr>
<td>Q1 0.28 0.00</td>
<td>0.33 0.00</td>
<td>0.37 0.00</td>
</tr>
<tr>
<td>Q2.1 –0.06 0.46</td>
<td>0.10 0.21</td>
<td>0.02 0.82</td>
</tr>
<tr>
<td>Q2.2 0.11 0.19</td>
<td>0.33 0.00</td>
<td>0.23 0.00</td>
</tr>
<tr>
<td>Q2.3 0.00 0.97</td>
<td>0.11 0.16</td>
<td>0.15 0.07</td>
</tr>
<tr>
<td>Q2.4 –0.01 0.89</td>
<td>0.08 0.32</td>
<td>0.00 0.98</td>
</tr>
<tr>
<td>Q2.5 –0.12 0.16</td>
<td>0.06 0.46</td>
<td>–0.05 0.56</td>
</tr>
<tr>
<td>Q2.6 0.12 0.13</td>
<td>0.29 0.00</td>
<td>0.29 0.00</td>
</tr>
<tr>
<td>Q2.7 –0.12 0.16</td>
<td>–0.04 0.60</td>
<td>–0.10 0.24</td>
</tr>
</tbody>
</table>

Source: own elaboration.

The strongest relationship was observed between foreign sales and supply. Management considers such principles of CSR as transparency and respect for international norms of behavior more often when it has a higher level of foreign sales and supply. Thus, companies tend to be more careful about those two CSR primary rules because their foreign customers and suppliers are sensitive about them. Those results confirm the importance of codes of conduct which might pressure leading companies in international supply chains [Andersen, Skjoett-Larsen, 2009, pp. 75–86]. These codes of conduct are sometimes derived
The Relationship between the Use of Incentives for Implementing CSR and the Level of Internationalization

To answer the second research question respondents were asked to specify if their companies use incentives to motivate managers to respect CSR principles (Q3). The results showed that while most organizations use such incentives, the most frequent answers were ‘from time to time’ and ‘often’ (together almost three-quarter of respondents) – these answers differ significantly according to one-sample Chi-Square test (p=0.000). Only 8% of respondents stated that they always use those incentives (Figure 4). Overall, less than half of investigated managers showed interest in that issue. Without proper motivation employees will not perceive CSR as a significant concept for their organizations. The sustainability idea should be treated as a philosophy of the whole organization that is considered in every company activity.

To reveal the existence and strength of the relationship between incentives used to motivate implementation of CSR concept in analyzed companies and their level of internationalization, the Spearman ratio was used. Only statistically significant results (p ≤ 0.05) were used for further analysis. The analysis revealed that companies that
have a higher share of foreign supply operations are more willing to use such incentives (R = 0.33). They adapt those incentives less frequently when a higher sales share (R = 0.24) and a higher foreign capital share (R = 0.19) are present.

The Relationship between Running Specific Processes Supporting Implementation of CSR and the Level of Internationalization

To determine the existence of specific processes supporting implementation of the CSR concept, respondents were asked if the decision processes and organizational structure of their companies’ enable them to (Q4):

- Q4.1. Develop an organizational culture capable to practice CSR principles,
- Q4.2. Use a system of economic and non-economic incentives enhancing performance in terms of social responsibility,
- Q4.3. Use financial, natural and human resources efficiently,
- Q4.4. Enable a fair opportunity for under-represented groups (including women and racial and ethnic groups) to occupy senior positions in the organization,
- Q4.5. Consider needs and establish two-way communication with stakeholders to negotiate agreements and resolve conflicts,
- Q4.6. Determine the responsibility for the positive and negative effects of decisions made on behalf of the organization,
- Q4.7. Periodically review and evaluate the governance processes of the organization, and adjust and communicate changes throughout the organization?

The results demonstrate that in more than 2/3 of companies the decision processes and organization structures specifically oriented towards CSR are implemented ‘from time to time’ or ‘often’ (Figure 5). Such answers were provided for each part of the question 4: Q4.1. – 76%, Q4.2. – 64%, Q4.3. – 74%, Q4.4. – 69%, Q4.5. – 70%, Q4.6. – 75%, and Q4.7–76%. These findings indicate an average (but explicit) interest of analyzed companies in implementing management solutions supporting CSR.

However, some differences between them can be observed. Respondents were least likely to implement the use of incentives (economic and non-economic) enhancing the performance of social responsibility; 2% of the respondents answered ‘never’ and more than 25% – ‘seldom’. On the other hand the smallest percentage of ‘never’ (1%) and ‘seldom’ (7%) answers, and the highest percentage of ‘always’ (18%) answers, were in response to the question about usage of financial, natural and human resources efficiently. The differences between the answers are statistically significant according to one-sample Chi-Square test (p = 0.000).
These responses suggest that company performance in Poland is still more important than social responsibility. Respondents indicate that they are determined to:

- use resources efficiently,
- develop an organizational culture supporting CSR principles,
- periodically review and evaluate the governance and adjustment of the processes and communicate changes throughout the organization,
- determine the responsibility for positive and negative effects of their decisions.

**FIGURE 5. The frequency of implementing decision processes and organization structures specifically CSR concept oriented**

Periodically review the governance processes and its adjustment and communicate changes

Determine the responsibility for effects of decisions made on behalf of the organization

Consider needs and communicate with stakeholders to negotiate agreements and…

Enable a fair opportunity for underrepresented groups to occupy senior positions in the…

Use financial, natural and human resources efficiently

Use a system of economic and non-economic incentives enhancing the performance on CSR

Develop organizational culture conductive to practice CSR principles

0.00% 10.00% 20.00% 30.00% 40.00% 50.00% 60.00%

Source: own elaboration.

Thus, decision-making processes in the analyzed companies is still not oriented towards CSR concepts as it fails to encourage CSR by incentivizing their personnel. To determine the existence and strength of the relationship between implementing the decision processes and organization structures specifically oriented to CSR concept and companies’ level of internationalization, the Spearman ratio was used (Table 2).

Within Table 2, Spearman ratios from 0.10 to 0.19 are marked by a light grey shadow, and ratios of 0.20 or and more by dark grey shadows. Only statistically significant results ($p \leq 0.05$) were used for further analysis. The above data suggests several relationships between a company’s share of foreign supply and social responsibility (listed in the order of the strength of relationship). They include:
• development of an organizational culture capable to practice CSR principles,
• use of a system of economic and non-economic incentives motivating to enhance the results of social responsibility actions,
• consideration of the needs and establishing two-way communication with, stakeholders to negotiate agreements and resolve conflicts,
• the periodic review and evaluation of the governance processes of the organization and adjustments and communication of changes throughout the organization,
• ability of creating the opportunity for underrepresented groups (including women and minorities) to occupy senior positions in the organization.

### TABLE 2. The relationship between implementing decision processes and organizational structures specifically oriented towards CSR and a company’s level of internationalization

<table>
<thead>
<tr>
<th>Q4.1</th>
<th>Q4.2</th>
<th>Q4.3</th>
<th>Q4.4</th>
<th>Q4.5</th>
<th>Q4.6</th>
<th>Q4.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>p</td>
<td>Ratio</td>
<td>p</td>
<td>Ratio</td>
<td>p</td>
<td>Ratio</td>
</tr>
<tr>
<td>0.18</td>
<td>0.03</td>
<td>0.20</td>
<td>0.01</td>
<td>0.26</td>
<td>0.00</td>
<td>0.26</td>
</tr>
<tr>
<td>0.25</td>
<td>0.00</td>
<td>0.27</td>
<td>0.00</td>
<td>0.26</td>
<td>0.00</td>
<td>0.26</td>
</tr>
<tr>
<td>−0.02</td>
<td>0.85</td>
<td>0.09</td>
<td>0.26</td>
<td>0.02</td>
<td>0.84</td>
<td>0.02</td>
</tr>
<tr>
<td>0.16</td>
<td>0.05</td>
<td>0.15</td>
<td>0.06</td>
<td>0.18</td>
<td>0.03</td>
<td>0.18</td>
</tr>
<tr>
<td>0.14</td>
<td>0.09</td>
<td>0.27</td>
<td>0.00</td>
<td>0.22</td>
<td>0.01</td>
<td>0.22</td>
</tr>
<tr>
<td>−0.02</td>
<td>0.80</td>
<td>0.15</td>
<td>0.06</td>
<td>0.09</td>
<td>0.25</td>
<td>0.09</td>
</tr>
<tr>
<td>0.16</td>
<td>0.05</td>
<td>0.18</td>
<td>0.03</td>
<td>0.20</td>
<td>0.02</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Source: own elaboration.

Three main topics of CSR connected to all aspects of internationalization of the surveyed companies are worth mentioning:

• development of an organizational culture able to practice CSR principles (mostly related to international purchases),
• use of a system of economic and non-economic incentives enhancing social responsibility performance (related mainly to foreign sales), and
• the periodic review and evaluation of the governance processes of the organization and adjustments and communication of changes throughout the organization (mostly related to international purchases).

Our research indicates that companies owned by international capital provide more opportunities for underrepresented groups (including women and minorities) to occupy senior positions in the organization. Thus, international companies seem to pay more attention to governance systems while focusing on social responsibility. [Gereffi, 2001, pp. 30–40].
The share of foreign capital encourages companies to use a system of economic and non-economic incentives enhancing the extend of social responsibility actions. The increase in foreign sales is mostly related with using a system of economic and non-economic incentives enhancing the social responsibility performance, and determining responsibility for the positive and negative effects of decisions made on behalf of the organization. An increase in foreign supply encourages companies to develop an organizational culture capable to perform CSR actions according to appropriate principles, and to use a system of economic and non-economic incentives enhancing social responsibility actions to be undertaken. Overall, an increase in foreign supply share influences the largest number of issues discussed above.

In summary it is worth mentioning two issues most influenced by internationalization. These are development of an organizational culture capable to promote CSR principles and usage of a system of economic and non-economic incentives enhancing social responsibility performance. Those two findings need to be considered when planning business expansion abroad.

Conclusions

The research discussed above focused on the growing interest of companies in managing CSR. In particular, we demonstrated the impact of internationalization of company operations on their use of CSR embedded in their supply chains. There are some aspects of international operations that affect implementation of CSR policies. However, despite many companies’ efforts to engage in CSR-related activities in their international supply chains only a limited scope of their operations actively supports their pro-social efforts. The research indicates that company management considers sustainability and CSR when establishing its strategic goals more often when the share of foreign capital, sales and supply grows.

Answering our question (RQ1) *What main principles of CSR are included in company’s management system depending on the level of internationalization?* we found that the main principles of CSR incorporated by companies that operate internationally included (in order of importance): respect for the rule of law, respect for stakeholder interests, ethical behavior, respect for human rights, accountability, transparency and respect for international norms of behavior. The last rule seems to be more essential in companies with foreign suppliers and/or foreign sales.

Research concerning our question (RQ2) *Are there any incentives motivating implementation of the CSR concept depending on the level of internationalization?* demonstrated that three-quarters of respondents declared frequent and less frequent use of some systems motivating employees to adopt CSR regulations in the practical operations of companies.
However, the level of internationalization of company’s operations was not a very important factor in adopting CSR; international supply and sales had a greater impact than international ownership.

When considering answers to our third question (RQ3) *What are the specific processes supporting implementation of the CSR concept depending on the level of internationalization?* We found that adoption of a system of economic and non-economic incentives enhancing the social responsibility performance in companies included in the survey was the least common process in companies acting on international markets. Instead, managers use all resources to develop an organizational culture conducive to practicing CSR, periodically review and evaluate the governance processes and adjust and communicate changes throughout the organization and, finally, determine accountability for the effects of decisions made on behalf of the organization. This suggests that the decision-making processes in the analyzed companies are still not oriented towards complying with CSR by incentivizing their personnel with benefits.

The above research has some limitations, however. First, the sample examined is relatively small (mostly because of the time-consuming data gathering technique used and limited accessibility to companies willing to provide information). Thus, the results of the research should be considered cautiously when drawing general conclusions. Second, our sample included only Polish companies and it is possible that the results of a similar study in other countries might differ. Finally, analysis of the sizes of the companies within the sample revealed that their frequency distribution varies significantly. In particular, while SMEs were well represented in the sample there were fewer large companies present. Thus, the results presented in this paper should be treated more cautiously when applied to large companies.

In spite of these limitations, this research may be helpful for decision makers when considering applying CSR concept in their companies. The presented results could be a guideline for managerial practices in this area.

Finally, findings of this research can serve as a starting point for further, more detailed research. This paper discussed CSR approaches used by selected companies operating in international markets. In the future it would also be interesting to investigate how far the CSR concept is transferred upstream and downstream in international supply chains. Furthermore, research on potential differences between large, small and medium companies operating in international supply chains, focusing on the large ones, is worth considering.
Notes

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References


External Knowledge Sourcing and Innovation Processes in Modern Economic Environment

Abstract

In an open and digital economy where ICTs, global networks and innovation systems play a key economic role, knowledge used by companies is increasingly gathered using different external sources. Rapidly changing technology enables companies to use new ways to innovate. New innovation processes permit companies to reduce risk and the costs of innovation. New paradigms, called open innovation and co-innovation, allow organizations to remain innovative in a rapidly changing environment. The objectives of this paper are: to provide a better understanding of open innovation and co-innovation paradigms and to suggest instruments for organizations to benefit from co-innovation ecosystem.

Internet empowered ICT tools can be the first step for an organization to initiate implementation of a digital strategy. To gain incremental, tacit, organizational knowledge or marketing skills, a new innovation strategy should involve networking through social networks and virtual communities. Digitalization of innovation activities constitutes a new important role for innovation networks and ecosystems, including global innovation networks, as knowledge and technology are no longer owned by a single firm or country. This paper attempts to prepare the theoretical background, for empirical studies on the impact of new innovation processes on company innovation and their competitive advantages. The study is descriptive and analytical, building on the theory and empirical results of previous studies on new, digital innovation models.
Keywords: external knowledge, innovation management, innovation process, co-innovation, open innovation
JEL: L17, M11, M21

Introduction

In non-globalized and non-networked economy, companies’ knowledge-sourcing decision faced two simple choices, either to create knowledge internally, or transfer technology through trade in capital goods or intellectual property rights. Technological revolution and digitalization influenced innovation processes models and cooperation structure. In an open economy, where global networks and innovation systems play important economic role, technologies implemented in companies are increasingly created using different external knowledge sources. New models of innovation processes enable companies to reduce both risk and costs of innovation.

The objectives of this paper are: to identify sources of external knowledge, provide better understanding of open innovation and co-innovation paradigm, indicate instruments which could be implemented by organizations to benefit from co-innovation ecosystem. This paper also provides the theoretical background for empirical studies on the impact of new innovation processes on companies’ innovation and their competitive advantages.

To meet these objectives the literature on innovation economics and innovation management was reviewed. Our study has a descriptive and analytical nature, as it builds on the theory and empirical results of previous studies a new digital innovation models. Using this methodology we hope to contribute to a better understanding of modern innovation management process in the age of digital transformation.

In the first part of the paper we present the basic terminology connected with innovation management and a literature review on the relationship between external knowledge and innovation in organizations. In the second part, we analyze different approaches to external knowledge sources and examine how innovation process models have changed over time. In the third part, we focus on the characteristics of open-innovation and co-innovation models as well as knowledge sourcing processes used in those models. The fourth part includes a description of modern tools for collaboration and networking in a co-innovation environment. In this section, we show how organizations can use ICTs to influence their innovation processes. The paper ends with a summary and conclusions.
External Knowledge and Innovation. Terminology and Literature Review

According to the literature, innovation and technical changes are main determinants of economic growth [Solow, 1957, pp. 312–320]. Du Plessis states that innovation is the creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market driven products and services [2007, p. 3]. Innovation is connected with change and organizations use it to influence an environment or in response to changing environments [Damanpour, 1991]. Innovation can be described as new knowledge implemented on the market. Without new knowledge innovation cannot be created. Consequently, issues like knowledge-capital, innovation process, and innovation management are very important research topics.

Knowledge-capital is necessary for innovation. It also determines the effectiveness of innovation process. Knowledge-capital is described as a set of information and knowledge produced, acquired and used in the value creation process [Laperche, Liu, 2013]. The process of creating knowledge is usually costly in terms of time and money. In a dynamic and competitive economic environment, internal resources are not sufficient to create knowledge, effectively making external knowledge sourcing a crucial process in modern organizations. External knowledge sources enable firms to cope with such changes as shorter product life cycles and increasing R&D costs [Porter, Stern, 2001, pp. 28–43].

The innovation process model is a theoretical concept that is useful to analyze the sources, flows and implementation of knowledge in organizations. Innovation is the result of a process whose phases form cycles, called the technique development cycles. Such a cycle lasts from the initial expenditure on research to completion and implementation (end of expenditure) [Jasiński, 1997, pp. 13–26]. This definition implies that the innovation process starts with an ideation stage, which involves mining knowledge sources for new products or processes, and continues to a product development and commercialization stage. The new knowledge acquired by the organization may not have a technological character. Instead, influencing skills, organizational and marketing knowledge can lead to innovation. External knowledge can be applied not just to generate new products but also to improve existing ones. The concept of ambidextrous organizations stresses that organizations need to simultaneously develop exploratory/radical and exploitative/incremental innovations, to meet the needs of emerging customers or markets [Benner, Tushman, 2002, 2003].

The relationship between innovation and the use of external sources of knowledge has been well-researched. Literature confirms that suppliers and customers’ engagement in the innovation facilitate innovation [von Hippel, 1998, p. 4] and further influence development and profiting from innovations [Calantone, Stanko, 2007]. External knowledge and information help companies grow in rapidly changing business environments.
Research shows that external sources of information are essential for effective innovation activity. Firms that implement open innovation and use different information sources have a greater capacity to generate innovation [Levitt, March, 1988; Gomez, Salazar, Vargas, 2016; Svetina, Prodan, 2008; Lee, Huh, 2016; Grant, 1996]. Despite the wide range of potential benefits, the positive external knowledge effect depends on proper knowledge absorption. External knowledge implementation process is neither easy nor automatic. The effectiveness of external knowledge use depends on organizational knowledge capacities, defined as “firm’s critical capabilities of managing internal and external knowledge, which include: inventive, absorptive, transformative, connective, innovative and desorative capacities” [Lichtenthaler, 2009]. Among those capabilities, absorptive capability is the most frequently researched and recognized. Absorptive capacity is defined as the ability of a firm to recognize the value of external information, assimilate it and apply it to commercial ends [Cohen, Lvinthal, 1990]. The strategy of external knowledge use should be consistent with organizational resources and long-term goals. It is important for firms to use external knowledge sources according to their internal capabilities [Cohen, Lvinthal, 1990]. It is not the knowledge acquisition but effective implementation that can bring positive results for organizations. The positive impact of external knowledge on innovation and competitiveness depends also on the balance between a firm’s reliance on external sources and in-house R&D activity. Research confirms that beyond a specific threshold, a greater share of external R&D activities reduces a firm’s innovative performance. The greater a firm’s R&D capacity, the more noticeable the substitution effect [Berchicci, 2013]. In addition, when firm’s knowledge is relatively tacit, external contracting is more viable, due to the lower threat of knowledge outflow to the contractor [External sources of knowledge…, 2001].

External Knowledge Sources and the Evolution of Innovation Process Models

Modern organizations need external knowledge to innovate and compete. There are many different forms and sources of knowledge as well as channels to acquire it, and quantifying this process is challenging. In this research we identify the most important and commonly used sources of external knowledge based on selected literature. The OECD methodology [OECD; Science, Technology and Industry Scoreboard, 2015] presents a wide range of external knowledge sources, divided into three groups: The first group (market sources) includes: suppliers of equipment, materials, components or software, clients or customers, competitors or other enterprises in the same sector and consultants, commercial labs or private R&D institutes. The second group (institutional sources) includes: universities or other higher education and government or public research institutions. The
third group (collaboration) involves active participation in joint innovation projects with other organizations, jointly implemented innovations with customers and suppliers, as well as partnerships with other organizations – and excludes contracting-out of innovation.

Eurostat methodology [Eurostat, Innovation Statistics], on which official EU statistics are based, considers the following sources of external information: suppliers of equipment, materials, components or software within the enterprise or enterprise group, clients or customers from the private sector, conferences, trade fairs, exhibitions, competitors or other enterprises in the sector, scientific journals and trade/technical publications, consultants or commercial labs institutes, professional and industry associations, clients or customers from the public sector, government, universities, and private or public research institutes.

Research conducted by the Spanish Technological Innovation Panel (PITEC), managed by the Spanish National Institute of Statistics emphasizes the importance of such external sources as: materials, suppliers of equipment, components or software, customers, competitors or other enterprises in the sector, consultants, commercial labs or private R&D institutes, and universities or other higher education institutions. According to the methodology used by Svetina and Prodan [2008], external knowledge sources are: interactions with clients and/or suppliers cooperation with other companies, public institutions and research centers, local government, semi-public institutions, industry associations, consultants, trade unions and private research centers (analyzed in three dimensions: local, national, international). Further, Tidd and Trewhella view external sources as suppliers and customers, contract research, licensing, alliances, and universities [1997].

Table 1 lists, the main external knowledge sources, developed and adopted in OECD methodology (with limited, mostly semantic, changes) and national statistical sources, as well as empirical scientific research.

### Table 1. Sources of external knowledge according to different methodologies

(OECD methodology is presented as a benchmark)

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<tbody>
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<td>clients or customers</td>
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<td>competitors or other enterprises within the same sector</td>
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<td>+(alliances/licensing)</td>
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<td>consultants</td>
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<td>commercial labs or private R&amp;D institutes</td>
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<td>universities or other higher education institutions and government or public research institutes</td>
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<td>active participation in joint innovation projects with other organizations</td>
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<td>conferences, trade fairs, exhibitions</td>
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<td>scientific journals and trade/technical publications</td>
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<td>-</td>
<td>professional and industry associations</td>
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*Source: own elaboration, based on documents mentioned in this section.*

This approach to research on external knowledge omits sources associated with the dynamic growth of information and communication technologies (ICTs), including those associated with online/virtual communities. The traditional approach does, however, help counteract some ambiguities when, for example, customers, suppliers or other companies are key elements of online communities and platforms. Considering them a separate channel could result in double-counting. Consequently, instruments such as the Internet, online communities, and platforms (including crowdsourcing) are better characterized as mechanisms to access knowledge, instead of traditional, external knowledge sources. To be effective in the digital economy traditional channels of knowledge transfer need to be supported with ICTs empowered tools. Table 2 presents relations between traditional and digital mechanisms for external knowledge acquisition.

Improved access to external knowledge and new forms of collaboration in organizations influences changes in innovation and knowledge management, as well as innovation modeling structures. It is worth considering research on five generations of innovation models [Rothwell, 1994]. The first and second generations are simple linear models, which can either take market pull or technology push variants. The third generation is a coupling model, recognizing interaction and feedback loops between market needs and research and the development sector (state of science and technology). It focuses on integration of the two above-mentioned generations. The fourth generation is called the parallel (interactive) model. It concentrates on internal firm integration with key customers and suppliers, and also includes external linkages and alliances. The fifth generation innovation model characterizes system integration and extensive networking, flexible and customized response, and continuous innovation. In that model, strategically directed integration within external agencies is critical. Networking, used extensively in that model, relies
on a sophisticated electronic toolkit in design and development activities. The literature also describes a sixth generation model in which a company's capability to acquire new knowledge is the most important element. Simultaneous interactions and continuous improvement are keys to expanding innovation.

### TABLE 2. The comparison and relations between traditional and digital mechanisms for external knowledge acquisition

<table>
<thead>
<tr>
<th>External knowledge source</th>
<th>Traditional mechanism for acquisition of knowledge</th>
<th>Digital mechanism for acquisition of knowledge</th>
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<tbody>
<tr>
<td>Suppliers of equipment, materials, components or software</td>
<td>Formal agreements, discussions, conferences participation</td>
<td>Platforms, online communities</td>
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<td>Clients or customers</td>
<td>Feedbacks, marketing research</td>
<td>Platforms, online communities</td>
</tr>
<tr>
<td>Competitors or other enterprises in the same sector</td>
<td>Corporate venturing, clusters, discussions, conferences participation</td>
<td>Platforms, online communities</td>
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<tr>
<td>Consultants</td>
<td>Formal agreement</td>
<td>Online communities</td>
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<tr>
<td>Commercial labs or private R&amp;D institutes</td>
<td>Formal agreement</td>
<td>Platforms</td>
</tr>
<tr>
<td>Universities or other higher education institutions and government or public research institutes</td>
<td>Formal agreement</td>
<td>Platforms</td>
</tr>
<tr>
<td>Active participation in joint innovation projects with other organizations</td>
<td>Formal agreement</td>
<td>Online communities</td>
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<tr>
<td>Conferences, trade fairs, exhibitions</td>
<td>Active, formal participation</td>
<td>Webinars, teleconferences</td>
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<td>Scientific journals and trade/technical publications</td>
<td>Trade</td>
<td>Online access</td>
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<tr>
<td>Professional and industry associations, semi-public institutions such as chambers of commerce, industry associations, trade unions</td>
<td>Active formal participation</td>
<td>Online communities</td>
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</table>

Source: own elaboration, based on literature used to prepare that paper.

Other classifications of innovation models were developed by Lee, Olson, Trimi [2012, p. 822]. Those authors believe that the innovation process has undergone evolutionary steps during the past three decades, and have indicated four different models: closed innovation, collaborative innovation, open-innovation, and co-innovation. The level of openness is a distinctive feature in this classification regime. The closed innovation process corresponds to first, second and third generation of innovation modeling, according to Rothwell. The fourth generation should be classified as collaborative innovation model, which leads
to value creation. This model relies on a co-development method with a selected partner, for example, a supplier (table 2), and is mainly bilateral and based on a formal agreement.

In addition, Marinova and Philimore [2003] further examined innovation models, relying on Rothwell’s typology. Their first-generation model is a black box model, which claims that the innovation process itself is not important. Second and third generation models correspond to the linear, coupling and interactive models in Rothwell’s classification. These three first generation models should be classified as closed models. The three remaining models correspond to an open innovation paradigm and will be discussed in the next section of this paper.

The innovation model classifications presented above suggest important changes in the innovation creation process. Key differences include the extent and form of external relations. Interdependencies between different classifications are presented in table 3, below, where the Rothwell classification is presented as a benchmark.

### TABLE 3. The comparison of different approaches to innovation models
(Rothwell classification is presented as a benchmark)

<table>
<thead>
<tr>
<th>Lee et al.</th>
<th>Rothwell</th>
<th>Marinova and Phillimore</th>
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<tbody>
<tr>
<td>1 generation</td>
<td>2 generation</td>
<td>3 generation (coupling model)</td>
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<td>4 generation (parallel/integrated/interactive model)</td>
<td>5 generation (networking model)</td>
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Open Innovation and Co-innovation as Modern Approaches to Knowledge Sourcing Processes

Openness is necessary to acquire external knowledge, to share knowledge, to overcome challenges and increase profitability. The developments and trends such as globalization, increased technology intensity, technology fusions, new business models, and knowledge leveraging make open innovation model more appropriate [Gassmann, 2006]. Open innovation models consider the integration of both internal and external sources of knowledge into the innovation process. According to this approach, firms need to evaluate all internal and external resources [Chesbrough, 2003]. Open innovation is based on a multi-agent relationship where internal R&D is complemented by a Connect and Develop function [Lee, Olson, Trimi, 2012]. Traditionally, these forms of relationships include: alliances, joint-ventures, and joint development centers. They tend to be formalized, relying on long term contracts. The basic idea of open innovation is to build a world-class value chain through a new innovation ecosystem where various complements are part of regional innovation process [Cooke, 2002]. Porter's cluster theory is considered a local and regional development tool [Swords, 2013] as clusters affect national and international competitiveness. Research on clusters provide knowledge on modes that companies, institutions, and government can influence innovativeness and enhance competitiveness [Porter, 1998].

This concept, as well as national innovation and global innovation systems, are theoretical underpinnings more relevant from a macroeconomic than an innovation management perspective. However, as indicated by the fourth and sixth generation models, the economic environment influences dynamics of innovation process. Open innovation based on outside knowledge provides the opportunity to share knowledge with external partners, increasing the number of institutions involved in that processes.

Openness is a part of digital economy², as knowledge can be accessed and managed using ICTs. That ability has influenced further developments in the innovation process. The new global business environment is characterized by permanently networked interdependent entities. In this world, innovation models can be seen as a platform where different ideas and complex projects are developed and solved, permitting easy and competitive value creation. In the literature that process is called co-innovation. The core of co-innovation includes engagement, co-creation, and a compelling experience for value creation. Co-innovation is open to the world platform primarily in marketing and commercial activities (as opposed to R&D). In the process of co-innovation collective intelligence and crowdsourcing are possible through formal channels and social networks. The key element of innovation is to provide a compelling experience with network effects for value creation. [Lee, Olson, Trimi, 2012, p. 818]. The goal of co-innovation is to build value, not only through new technologies, but also through finding and accessing new markets, (implementation of blue ocean strategy). It means that co–innovating leads not only to product innovation,
but also to process, organizational and marketing innovations. This approach influences strategies used to implement external knowledge and gain competitive and innovative advantage. Co-innovation uses different methods for bringing together various groups of experts, enabling the use of collective intelligence. Instruments that enable co-innovation are mainly based on ICTs, and include the internet, computers, mobile phones, smartphones, tablets, smart devices, and beacons. These devices enable unlimited access to new knowledge in real-time, and easy networking. To implement a co-innovation model in innovation processes firms are forming new business approaches, i.e., where virtual communities connect and develop ideas, products, and technologies. The meaning and the process of value creation is rapidly shifting from a product and firm-centric view to personalized consumer experiences. Informed, networked, empowered, and active consumers are increasingly co-creating such value [Prahald, Ramaswamy, 2004].

OECD methodology indicates three strategies used in an open innovation environment. The first is partnerships with external parties (alliances, joint ventures, joint development, etc.), the second is the acquisition or sale of knowledge (contract R&D, purchasing, licensing), and the third is corporate venturing (equity investments in university spin-offs or venture capital investment funds) [OECD, Open innovation…, 2008, p. 11] All these strategies are formal in nature. Consequently, this co-innovation model should be considered as a new, different paradigm, mainly because of its specific channels for acquiring knowledge and external knowledge implementation. The co-innovation model is based on new knowledge co-creation and not outsourcing, as is the case in other models.

Modern Tools for Collaboration and Networking in a Co-innovation Environment

Networking enhancing creation and transfer of knowledge and technology rely on tacit knowledge access. Investments in different forms of mutual learning and other forms of collaboration are associated with increased patenting [Fagerberg et al., 2005, p. 73], adding to the positive impact of networking on innovation. According to Tidd et al. [2001, p. 232] the collaboration process should lead to acquisition of new skills or competencies rather than technology or products. There is an important difference between acquiring the skills of a partner and gaining access to them. Access is possible through contracting or licensing. Internalization of a partner’s skills requires closer contact, made possible through joint-ventures or strategic alliances. That kind of formal network, supported with informal collaboration, tends to bring new value to organizations. The concept of innovation networks, as a new hybrid form of organization, became an important topic for research. This research shows that networks are appropriate where the benefits of co-specialization, sharing of joint infrastructure and standards, and other network externalities outweigh the
costs of network governance [Tidd et al., 2001, pp. 214–215]. Organizations with broader networks are exposed to more experiences, different competencies, and opportunities [Beckman, Haunschild, 2002]. A number of empirical studies on the relationship between networks and innovation focus on formal, mainly bilateral contracts, indicating a strong positive relationship between alliance formation and innovation [Fagerberg et al., 2005, pp. 60–70]. The impact of informal relations was first researched by von Hippel [1989], who analyzed the relationship between engineers in rival firms, focusing on the impact of membership in professional communities on productivity. In addition, Brown and Duguid developed a concept known as the network of practice [2001]. Modern researches on networking concentrate on networking facilitated by internet and multiparty networking including open software communities. Romero and Molina [2011] mentioned strategic networks such as collaborative networked organizations (CNOs) and virtual customer communities (VCCs), which inspired the creation of values in co-creation and co-innovation processes. Networking has many important functions, which enable innovation in a digital environment, mainly through open and co-innovation model implementation. It is not just a mechanism helping to integrate, manage and implement competencies of a crowd and create value. It also helps minimize risk of innovation (see Figure 1).

**FIGURE 1. Networking functions**

![Networking Functions Diagram](image)


In today’s economic environment, the development of a firm’s knowledge-capital relies primarily on cooperation among other large and small companies and/or public institutions and consumers. In a digital world, the construction of the knowledge-capital takes place in innovation networks [Laperche, Liu, 2013, p. 1]. Under this co-innovation
model paradigm, new value is created through multilateral networking, which helps firms use external knowledge effectively by managing links among partners, institutions, and consumers. The Internet has made knowledge creation and diffusion much more community-oriented, accessible, and less expensive. Using the internet, consumers exchange information, knowledge and opportunities to transform innovative ideas into new products. To be effective such processes need effective management. Networking is needed among interdependent group of entities possessing complementary resources. Inter-organizational cooperation influencing the innovation process needs to set clearly defined goals, which are publicly announced using designated platforms. The relationships between networking tools are presented in Figure 2 below. The more specific instrument used to acquire or gather knowledge, the more explicit and appropriate the knowledge that is acquired.

FIGURE 2. Interdependencies between different ICTs empowered tools for knowledge acquisition

In a digital economy, online communities are critical to connect users and business [Reducing the risk of failure..., 2016]. Social networks and virtual communities are also essential for understanding current changes in the business environment, which forces companies to work faster and operate globally. On the one hand, online communities are a source of knowledge that is comprised of the knowledge and opinions from particular members of the community. On the other hand online communities allow to set a strategy for future action, that emerges from the process of web analysis. Social networks are defined as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, create a list of users with whom they share connections, and
view and share a list of those connections within the system [Boyd, Ellison, 2007, p. 211]. Social networks facilitate and enhance learning, creativity, collaboration, and knowledge creation, which can be shared with others [Garrigos et al., 2011]. Virtual communities are defined as technology-supported cyberspace, focusing on the communication and interaction of its participants, which build relationships among members, generate specific knowledge enabling participants to perform common functions, and collectively learn and build knowledge [Lin et al., 2008].

Channels used to acquire knowledge from the cyber crowd include internet, digital platforms connecting organizations, partners, consumers, media and other users. These platforms facilitate the acquisition and creation of knowledge in a special ecosystem supporting innovation, where all interested in specific activities can be integrated. Social networking sites also constitute such platforms. There are internal (company-specific), and external (industry-wide) platforms. From the co-innovation perspective, external (industry) platforms are more important. Platforms are the instruments that enable the communication with other firms and create business specific ecosystems. Platforms also enable the creation of complementary products, services, and technologies, and also cause network effects, which increase the value of platforms for users [Gawer, Cusumano, 2014]. This combined impact of the internet, digital technologies and platforms exists when two user groups (typically, a producer and consumer) generate network value for each other, resulting in mutual benefits that drive demand-side economies of scale. The network effects of platforms, with the biggest amount of connected users and transactions, drive value creation and scale [Accenture, Technology Vision, 2016, p. 7]. Intermediary platforms appear in different areas of the modern economy (where not only R&D platforms and open innovation software function) but also communities of innovators and creators; marketing, design and idea platforms, collective intelligence and prediction platforms, HR and freelancers platforms, and intermediary open innovation services [Board of Innovation, available at: boardofinnovations.com].

Platform value also stems from their role in enabling crowdsourcing, when applied as an instrument to source completely new knowledge addressing new problems. Crowdsourcing is a new concept and it is connected to many practices. Crowdsourcing may be connected with any type of internet-based collaborative activity, such as co-creation or user innovation [Estelles-Arolas, Gonzalez-Ladron-de-Guevara, 2012]. It is also defined as an online, distributed problem-solving and production model [Brabham, 2010] or an activity wherein the company assumes functions once performed by employees and outsources them to an undefined (and generally large) network of people. This process typically takes a form of an open call, performed by individuals or collaborative groups [Callaghan, 2016].

The literature shows that the interaction between absorptive capacity and network position has significant, positive effects on business innovation and performance. Tsai [2001] argue that networking is an effective way to facilitate open innovation among SMEs [Lee...
et al., 2010]. There is also evidence that network partnership is primarily used for activities such as data collection and only used in a limited capacity strategy and decision-making [Heger, Boman, 2014]. Research confirms that for relatively small organizations, it is difficult to network with bigger, influential partners, or use crowdsourcing competitions. Small and medium enterprises (SMEs) which lack resources, do not maintain effective networks, often limiting themselves to networks necessary for co-innovation. It is worth noting the important role of state, public organization and intermediaries to transform companies in such an open environment [Hossain, 2015, p. 10]. Horizontal collaborative networks are essential for the expansion of knowledge in companies and open innovation and social networks enable that process [McAdam et al., 2014].

**Summary and Conclusions**

Open innovation and co-innovation involve unlimited access to external knowledge as the key element of an innovation strategy in today’s economy. Models differ in terms of the forms for acquiring knowledge, external relation characteristics and the kinds of innovation, which are specific to each innovation model’s implementation. The synthetic comparison of the closed, open and co-innovation models is presented below in table 4.

<table>
<thead>
<tr>
<th>Innovation model</th>
<th>Closed/ collaborative</th>
<th>Open</th>
<th>Co-innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge transfer channel</td>
<td>Trade/ formal agreement</td>
<td>Trade/ formal agreement</td>
<td>Networking/ online communities/ platforms</td>
</tr>
<tr>
<td>Kind of innovation which is mainly generated as an effect of specific innovation model’s implementation</td>
<td>Product/ process innovation</td>
<td>Product/ process/ organizational innovation</td>
<td>Product/ process/ marketing/ organizational innovation</td>
</tr>
<tr>
<td>Form of relation with external partners</td>
<td>Bilateral/ formal</td>
<td>Multilateral/ formal</td>
<td>Multilateral/ informal</td>
</tr>
</tbody>
</table>

*Source: own elaboration.*

The development of new innovation models leads to important conclusions for organizations and economic policy. Companies’ key resource in the digital economy is knowledge. Openness and co-innovation, which enable time and cost saving in acquiring knowledge, therefore need to be a critical part of a company’s business strategy. In addition, human capital management should play an important role in innovation strategy, allowing effective new knowledge implementation. Priorities of modern companies should contain such elements as development of IT competencies, open culture, and diversity.
Most organizations need digital transformation to effectively access external knowledge, and that message should be part of their business strategy. Internet tools described in this paper can be used as the first steps in digitalization and empowerment of the innovation process. The knowledge needed by a particular organization should determine the digital tools required. If an organization works in high-tech sector, where intellectual property rights play an important role, in order to acquire new, technological knowledge, it needs to turn to traditional technology transfer channels, supported by networking dedicated communities or crowdsourcing platforms. To gain incremental, tacit, organizational knowledge or marketing skills, networking through social networks and virtual communities should be included in an innovation strategy. Digitalization of innovation activities implies an important role for innovation networks and ecosystems, including global innovation networks. New innovation models are consistent with a lean innovation approach, which concentrates on rapid identification, development and testing of minimally viable products, and is also considered a more efficient learning process. Rapid technology development resulting in increasing R&D spending is insufficient to remain competitive. There is a critical role for proper network management and analytics, especially as most of digital instruments used to gain new knowledge (such as crowdsourcing), are costly when used for evaluation or data analytics.

Notes

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References


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Deficiency Judgments as a Mortgage Pricing Factor

Abstract

The subject of the deficiency judgments has been poorly examined due to a lack of relevant data and the complexity of the issue. Some comprehensive studies have explored whether allowing deficiency judgments decreases the likelihood of strategic defaults in the U.S. mortgage market. Little, however, has been done to determine whether there is any direct correlation between legal standing allowing recourse and loan pricing. Hence, additional work regarding this subject is needed.

This study seeks to fill this gap by exploring the impact of allowing deficiency judgments on mortgage pricing policy in various U.S. states. Seven distinctive mortgage types in two groups of states were compared. We conclude that there is no statistically significant difference between recourse and non-recourse states in terms of mortgage pricing, regardless of mortgage type.

Keywords: deficiency judgment, recourse and non-recourse mortgages, mortgage pricing policies

JEL: G21, G28, K25, K35

Introduction

A set number of factors determining the likelihood of default and foreclosure emerge from empirical research and theoretical analysis. Primary among them are deficiency
judgments, equity of redemption, the statutory right of redemption and judicial/non-judicial foreclosures [Clauretie, Herzog, 1989, pp. 221–233], as well as bankruptcy laws. In this study we differentiated between states in which the mortgage holders can file for a deficiency judgment if the proceeds from a foreclosure sale are insufficient to cover their mortgage debt, and states in which lenders are prohibited or severely restricted from pursuing the borrower. Based on the foregoing dichotomy, we analyzed whether there are risk assessment differences between these two groups of states and, consequently, more (less) stringent pricing policies in states considered non-recourse (recourse). Mortgage interest rates stem from interbank offer rates and assessments of default risk. Lenders have little direct influence on the former. Therefore, the latter should pre-eminently differentiate pricing policies among lenders. Since mortgages are long-term obligations, interest rate surges increase clients’ likelihood of default. And property price declines reduce the ability of borrowers’ to refinance. This is especially true in the U.S. market where, unlike in Europe, interest rates are usually fixed either for the whole term of the mortgage or for the first few years (FRM, 5/1 ARM, 7/1 ARM).

The mortgage market in the U.S. – as opposed to Europe – is often perceived as recourse, because most states allow deficiency judgments. Among recourse states, 21 have no limits and 27 impose restrictions. A deficiency judgment usually refers to a lender’s claim for the difference between a property’s value at the time of foreclosure and the outstanding loan balance, accrued interest, and legal and other costs acquired in the course of the procedure following default. It is believed that the single most important reason for default is the borrower’s financial situation deterioration. This reason has been the most common explanation for rising foreclosures in the Great Recession.

In that financial shock, negative equity has been viewed as a collateral consequence of severe real estate depreciation, rather than a potential risk factor for mortgage default. The literature often portrays a mortgage as a type of financial asset [Kau et al., 1993, pp. 288–299]. As such, it is a tool determining credit risk. Option-pricing modeling is usually applied to assess the likelihood that a particular borrower will default, and includes deficiency judgments as a factor in exercising that option [Johnes, 1993, pp. 115–138]. This approach implies that a borrower will default only when the option is in-the-money, meaning that discounted peculiar proceeds and non-peculiar gains combined exceed the costs incurred and discounted potential loss. In other words, intrinsic value should not be less than zero to trigger default on any given mortgage loan. Regardless of how controversial this line of reasoning is, it is more appropriate in a non-recourse state where future cash flows resulting from default are more predictable for a borrower who considers whether to stop loan payments. Applying this model in a recourse state – where neither the scope nor the timing of a mortgagee action can be accurately foreseen – requires a more elaborate methodology.

Though mortgage defaults usually emanate directly from borrowers’ financial problems, some people default even when they are capable of paying monthly installments. These
Deficiency Judgments as a Mortgage Pricing Factor

borrowers are referred to as strategic defaulters. Several researchers believe that there is a cause and effect relationship between deficiency judgment availability and strategic default prevalence in any given state. That is, this type of default is higher in non-recourse states than in recourse states. There is little consensus about whether deficiency judgment availability has any direct impact on strategic default rates. This is partially due to a shortage of empirical evidence driven by lack of data availability which, when it exists at all is usually proprietary and therefore unavailable to researchers. In addition, classification factors are ambiguous; there is no single, generally accepted definition of strategic default due to the lack of standardized databases. Rather, inconsistent, erratic definitions complicate matching the data that is available to researchers. Consequently, a reliable comparison between studies is challenging. Conflicting results are also attributable to a variety of factors relevant to the default risk assessment process, such as vintage and geographical location [Experian and Oliver Wyman, 2010, pp. 4–6], volume [Ghent, Kudlyak, 2011, pp. 3139–3186], whether the mortgage is a first or second lien [Jagtiani, Lang, 2011, pp. 7–23], and morality [Guiso et al., 2013, pp. 1473–1515 and Guiso et al., 2009, pp. 1–33] and [White, 2010a, pp. 1–12] and [White, 2010b, p. 971] and [Bridgeman, 2011, pp. 123–153]. A few studies referring to behavioral theories have tacked these problems [Wilkinson-Ryan, 2011, pp. 1547–1583 and Riddiough, Wyatt, 1994, pp. 299–318]. Most of these studies compare U.S. states where, by law or legal custom, different remedies are available to pursue a borrower for the debt owed. No static model can explain the examined question for the reasons mentioned above. However we attempt to determine the impact of particular legal regulations on economics through behavioral channels.

This paper consists of literature review concerning deficiency judgments as a factor affecting strategic default, followed by a statistical analysis of whether lack of recourse is priced into mortgage loans. A discussion of our findings is then provided and followed by final remarks.

Literature Review

The findings presented in the literature are far from conclusive. Researchers are divided evenly between those convinced that recourse has a significant role in preventing strategic default and those that see no evidence confirming any causal relationship. Data drive the disagreement among researchers, as there is still no comprehensive data source or unambiguous definition of a strategic default. One of the more comprehensive studies is based on proprietary data from LPS Applied Analytics, Ghent et al. [Ghent, Kudlyak, 2011, 2011, pp. 3139–3186], which found that recourse has no direct implication, in absolute terms, on default rates in recourse versus non-recourse states, but it does help to lower borrower sensitivity to negative equity. Moreover, that study suggests that this relationship is strengthened for properties appraised at $500,000 to $750,000,
for which owner, borrowers are twice as likely to default in recourse states. A study by Market Intelligence Report supports this observation [Experian, Wyman, 2010, pp. 8–18]. The advantage of this report is an unrestrained access to mortgage and non-mortgage data obligations assigned to particular borrowers (provided by Experian), which permits calculation and statistical analysis based on a specific, arbitrary definition of a strategic defaulter. Specifically, mortgage and non-mortgage obligations were coupled and strategic defaulters defined as a customers with 60 to 180 or more days past due on their mortgage, with no arrears regarding other types of financial commitments (e.g., less than sixty days past due on auto loans, less than ninety days past due on bank cards, retail cards, and personal loans, and being current on other financial commitments – as verified for the six month period after the first sixty days past due on the mortgage). The report concludes that borrowers with one mortgage are the most likely to walk away from their home despite having financial resources to continue monthly payments. The authors also find that strategic default was the prevailing form of default among sub-prime borrowers. Geographical patterns also emerge from the report. Between 2005 and July 2009 defaults increased eighty and fifty-three times in California and Florida respectively. The timing between borrowing and defaults is also noteworthy: strategic defaulters in the first half of 2009 were six times more likely to have obtained their mortgages in 2006 as compared to those with mortgages originating in 2004.

These claims have been repeatedly challenged. Due to the fact that other states have been consistently keeping the status of recourse/non-recourse policy, Li and Oswald focused on Nevada, which ended recourse judgments in 2009 (mortgage loans made after October 2009 were collateralized by primary single family homes) [Li, Oswald, 2014, pp. 2–23]. Using unique mortgage loan data, the authors claim that this change did not decrease defaults or foreclosures, and that mortgage demand remained stable despite stricter underwriting processes (lenders reduced approval rates and loan size).

A different perspective emerges from a more general study by Kanis Saengchote [Saengchote, 2014, pp. 2–28] pertaining to all U.S. states. The author uses the BAPCPA (Bankruptcy Abuse Prevention and Protection Act of 2005) as a proxy for states that permits recourse judgment. Although both papers have a similar starting point, their conclusions differ. Saengchote finds that stronger recourse laws may deter strategic defaulters, and significantly increase credit supply in recourse states after BAPCPA. This is considered a consequence of perceiving mortgage collateral as a factor reducing risk as bankruptcy law become strengthened, and therefore the number of eligible borrowers is reduced. He also finds a relationship with the underwriting process.

Hatchondo, Martines and Sanchez constructed a model to try to determine how recourse mortgages and LTV limit regulations can be used to mitigate default risk [Hatchondo et al., 2014, pp. 10–48]. Their study concluded that regulation being too lax or too harsh may inflict harm to the property market. Lenders deprived of primary recourse remedies may seek more defaults. Overly stringent regulations may decrease housing demand
and diminish a household’s ability to provide self-insurance for themselves. The authors claim that these adverse results may be mitigated by combining relatively mild recourse laws with Loan-to-Value limits, which could lower default rates and strengthen demand without impairing a home buyers ability to cover the risk using self-insurance. Another study focusing on the relationship between recourse and non-recourse states [Bhutta et al., 2010, pp. 14–29] seeks to investigate the underlying cause of mortgage defaults in Arizona, California, Florida and Nevada (covering non-prime mortgages in the period between 2006 and September 2009). Their findings suggest that – depending on the negative equity threshold – both the “double trigger” and “strategic default” theories are correct. The “double trigger” theory states that life events and liquidity constraints, along with “ruthless calculation” may trigger a decision to default on an “underwater” mortgage. “Strategic default” theory states that rational calculation drives borrowers to default when negative equity is involved. The authors attempt to quantify this threshold, finding that the median borrower refrains from default until negative equity exceeds 62%. On the other hand, when negative equity is 10% or less, the combination of life events and negative equity can trigger delinquent payments.

Literature on what implications lender remedies have on voluntary defaults, and the price implication resulting from different legal rights, are in short supply. The few that have been conducted concentrate more on coinsurance and risk transfer between mortgage holders and insurers, rather than the general costs imposed on a bank or borrower.

Based on quantitative analysis, Ambrose et al. advise private mortgage insurers to increase transaction costs associated with mortgage put option for borrowers. To do so, they recommend shortening the period between default and foreclosure and increasing “in the money” deficiency judgments to decrease strategic defaults, and cut costs. The authors also recommend that governmental insurers (who provide de facto PMI) actively seek deficiency judgments. This recommendation rests on two study findings: (a) default probability increases with the expected delay between default and actual foreclosure and (b) a reverse correlation between likelihood of deficiency judgment and default [Ambrose et al., 1997, pp. 314–325]. These findings are generally corroborated by Jagtiani, Lang [2011, pp. 7–23].

Their study concentrated on factors determining a borrower’s propensity to default on a first lien while staying current on a second lien mortgage. The authors revealed several statistically relevant regularities. Among them is that negative equity was a prerequisite for default, but insufficient to trigger it. This explains why there is a significant proportion of borrowers defaulted on their first lien mortgage while remaining current on their second lien mortgage. Borrowers were especially likely to do so when the second lien was a HELOC (home equity line of credit) rather than HELOAN (home equity loan), as the former provided borrowers with a credit line. Surprisingly, though, researchers found no evidence that mortgage quality (prime, alt-A or subprime) played a significant role in determining this behavior.
Perhaps the most perplexing results concerning pricing specifically emerge from a study conducted by [Ghent, Kudlyak, 2011, pp. 3174–3177], indicating that interest rates are actually higher in recourse, versus non-recourse states (excluding privately held mortgages). They also found the strongest deterrent effect for strategic defaulters to be properties appraised at $750,000 to $1,000,000, which may suggest a strong correlation between recourse and pricing within that price category.

Data and Methodology

One would expect that the correlation between legal standing in a given state and probability of default would impact risk assessment. Therefore that risk, being a crucial pricing element, would be reflected in interest rates. Since most studies ignore the differences between recourse and nonrecourse states, we investigate the issue from a practical perspective. We consider interest rates to be the most adequate determinant of potential price differentiation between states, since interest rates reflect the cost of capital and of risk involved in different types of loans. To determine whether there is a clear relationship, we juxtapose average interest rates across recourse and non-recourse states as determined by Ghent and Kudlyak [Ghent, Kudlyak, 2011, pp. 3143–3146]. We then split the data into seven groups to reflect distinctive types of mortgages (instead of pooling these data together). While this may increase the likelihood of having to choose non-parametric calculation methods due to a more scattered distribution, it enhanced the practical results. Seven types of mortgages were taken into consideration, namely: thirty year –term mortgages with a fixed interest rate (30 year fixed), fifteen year-term mortgages with a fixed interest rate (15 year fixed), hybrid adjustable-rate mortgages (5/1 ARM), thirty year-term refinanced mortgages (30 yr fixed mtg refi), fifteen years-term refinanced mortgages (15 yr fixed mtg refi), hybrid adjustable-rate refinanced mortgage (7/1 ARM refi), and fifteen year-term jumbo refinanced mortgages with fixed interest rates (15 yr jumbo fix mtg refi).

The hybrid adjustable-rate mortgage (5/1 ARM) has a fixed interest rate for 5 years, that is then adjusted annually. From year six onwards, the interest rate is based on an index factor and a predetermined margin. The hybrid adjustable-rate refinanced mortgage (7/1 ARM refi) has the same structure, but it lasts seven years. These mortgage types can be used when the property will likely be sold before the initial fixed payment period.

Adjustable-rate mortgages or ARM are much less popular in the U.S. than in continental Europe. According to 2010 studies by Bankrate, less than 10% of would-be mortgage holders chose this type of mortgage [available at: http://www.bankrate.com/ accessed: November 8, 2016]. The fifteen year-term jumbo refinanced mortgage with fixed interest rate (15 yr jumbo fix mtg refi) refers to a mortgage exceeding conforming limits imposed by Fannie Mae and Freddie Mac regulations. Cut-off points differ throughout the U.S., but in most states mortgages over $417,000 are qualified as jumbo.
TABLE 1. States classification of various mortgage types with their average interest rates

<table>
<thead>
<tr>
<th>State</th>
<th>Recourse/ non-recourse state</th>
<th>30 year fixed</th>
<th>15 year fixed</th>
<th>5/1 ARM</th>
<th>30 yr fixed mtg refi</th>
<th>15 yr fixed mtg refi</th>
<th>7/1 ARM refi</th>
<th>15 yr jumbo fixed mtg refi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>recourse</td>
<td>3.45</td>
<td>2.74</td>
<td>3.05</td>
<td>3.49</td>
<td>2.77</td>
<td>3.17</td>
<td>3.14</td>
</tr>
<tr>
<td>Alaska</td>
<td>non-recourse</td>
<td>3.44</td>
<td>2.75</td>
<td>3.11</td>
<td>3.56</td>
<td>2.8</td>
<td>3.12</td>
<td>3.18</td>
</tr>
<tr>
<td>Arizona</td>
<td>non-recourse</td>
<td>3.5</td>
<td>2.78</td>
<td>3.02</td>
<td>3.53</td>
<td>2.8</td>
<td>3.11</td>
<td>3.91</td>
</tr>
<tr>
<td>Arkansas</td>
<td>recourse</td>
<td>3.47</td>
<td>2.75</td>
<td>3.38</td>
<td>3.52</td>
<td>2.79</td>
<td>3.23</td>
<td>3.21</td>
</tr>
<tr>
<td>California</td>
<td>non-recourse</td>
<td>3.49</td>
<td>2.76</td>
<td>3.04</td>
<td>3.49</td>
<td>2.76</td>
<td>3.16</td>
<td>4.06</td>
</tr>
<tr>
<td>Colorado</td>
<td>recourse</td>
<td>3.44</td>
<td>2.72</td>
<td>3</td>
<td>3.49</td>
<td>2.76</td>
<td>3.12</td>
<td>4.07</td>
</tr>
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<td>recourse</td>
<td>3.47</td>
<td>2.76</td>
<td>2.99</td>
<td>3.48</td>
<td>2.76</td>
<td>3.15</td>
<td>3.14</td>
</tr>
<tr>
<td>Delaware</td>
<td>recourse</td>
<td>3.48</td>
<td>2.76</td>
<td>3.04</td>
<td>3.52</td>
<td>2.79</td>
<td>3.17</td>
<td>3.19</td>
</tr>
<tr>
<td>Florida</td>
<td>recourse</td>
<td>3.57</td>
<td>2.74</td>
<td>2.99</td>
<td>3.6</td>
<td>2.77</td>
<td>3.16</td>
<td>4.06</td>
</tr>
<tr>
<td>Georgia</td>
<td>recourse</td>
<td>3.44</td>
<td>2.73</td>
<td>3.07</td>
<td>3.48</td>
<td>2.76</td>
<td>3.15</td>
<td>3.9</td>
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<td>recourse</td>
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<td>2.99</td>
<td>3.52</td>
<td>2.79</td>
<td>3.22</td>
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</tr>
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<td>recourse</td>
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<td>2.71</td>
<td>2.99</td>
<td>3.52</td>
<td>2.74</td>
<td>3.12</td>
<td>3.58</td>
</tr>
<tr>
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<td>recourse</td>
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<td>2.74</td>
<td>3.03</td>
<td>3.5</td>
<td>2.78</td>
<td>3.16</td>
<td>3.16</td>
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<td>2.8</td>
<td>3.19</td>
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<td>2.79</td>
<td>3.19</td>
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<td>recourse</td>
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<td>3.06</td>
<td>3.51</td>
<td>2.79</td>
<td>3.18</td>
<td>3.14</td>
</tr>
<tr>
<td>Kentucky</td>
<td>recourse</td>
<td>3.47</td>
<td>2.76</td>
<td>3.13</td>
<td>3.47</td>
<td>2.76</td>
<td>3.09</td>
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<td>2.76</td>
<td>3.06</td>
<td>3.51</td>
<td>2.79</td>
<td>3.18</td>
<td>3.13</td>
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<td>3.17</td>
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<td>2.74</td>
<td>2.95</td>
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<td>2.76</td>
<td>3.13</td>
<td>3.58</td>
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<td>3.18</td>
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<td>3.09</td>
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<td>2.79</td>
<td>3.19</td>
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<td>2.79</td>
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<td>2.79</td>
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<td>2.76</td>
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<td>2.8</td>
<td>3.13</td>
<td>3.18</td>
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<td>Nebraska</td>
<td>recourse</td>
<td>3.94</td>
<td>2.94</td>
<td>2.94</td>
<td>4.1</td>
<td>3.07</td>
<td>3.39</td>
<td>4.04</td>
</tr>
<tr>
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<td>recourse</td>
<td>3.45</td>
<td>2.74</td>
<td>3.08</td>
<td>3.51</td>
<td>2.78</td>
<td>3.13</td>
<td>3.19</td>
</tr>
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<td>New_Hampshire</td>
<td>recourse</td>
<td>3.46</td>
<td>2.73</td>
<td>3.06</td>
<td>3.51</td>
<td>2.78</td>
<td>3.11</td>
<td>3.18</td>
</tr>
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<td>recourse</td>
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<td>2.72</td>
<td>2.85</td>
<td>3.48</td>
<td>2.74</td>
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<td>3.33</td>
</tr>
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<td>2.73</td>
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<td>3.5</td>
<td>2.77</td>
<td>3.14</td>
<td>3.38</td>
</tr>
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<td>2.76</td>
<td>2.85</td>
<td>3.55</td>
<td>2.8</td>
<td>3.14</td>
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<td></td>
<td>3.46</td>
<td>2.76</td>
<td>3.01</td>
<td>3.5</td>
<td>2.79</td>
<td>3.16</td>
<td>3.39</td>
</tr>
<tr>
<td>State</td>
<td>Recourse/ non-recourse state</td>
<td>30 year fixed</td>
<td>15 year fixed</td>
<td>5/1 ARM</td>
<td>30 yr fixed mtg refi</td>
<td>15 yr fixed mtg refi</td>
<td>7/1 ARM refi</td>
<td>15 yr jumbo fixed mtg refi</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>North_Dacota</td>
<td>non-recourse</td>
<td>3.46</td>
<td>2.76</td>
<td>3.1</td>
<td>3.52</td>
<td>2.81</td>
<td>3.13</td>
<td>3.2</td>
</tr>
<tr>
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<td>recourse</td>
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<td>2.75</td>
<td>3.04</td>
<td>3.5</td>
<td>2.78</td>
<td>3.18</td>
<td>3.22</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>recourse</td>
<td>3.45</td>
<td>2.75</td>
<td>3.08</td>
<td>3.5</td>
<td>2.79</td>
<td>3.2</td>
<td>3.15</td>
</tr>
<tr>
<td>Oregon</td>
<td>non-recourse</td>
<td>3.44</td>
<td>2.71</td>
<td>3.06</td>
<td>3.49</td>
<td>2.75</td>
<td>3.3</td>
<td>4.37</td>
</tr>
<tr>
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<td>recourse</td>
<td>3.43</td>
<td>2.71</td>
<td>2.95</td>
<td>3.46</td>
<td>2.74</td>
<td>3.11</td>
<td>4.09</td>
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<tr>
<td>Rhodejsland</td>
<td>recourse</td>
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<td>2.74</td>
<td>3.03</td>
<td>3.51</td>
<td>2.78</td>
<td>3.1</td>
<td>3.15</td>
</tr>
<tr>
<td>South_Carolina</td>
<td>recourse</td>
<td>3.45</td>
<td>2.75</td>
<td>3.02</td>
<td>3.5</td>
<td>2.78</td>
<td>3.16</td>
<td>3.15</td>
</tr>
<tr>
<td>South_Dacota</td>
<td>recourse</td>
<td>3.47</td>
<td>2.76</td>
<td>3.14</td>
<td>3.53</td>
<td>2.81</td>
<td>3.13</td>
<td>3.18</td>
</tr>
<tr>
<td>Tennessee</td>
<td>recourse</td>
<td>3.44</td>
<td>2.72</td>
<td>2.97</td>
<td>3.48</td>
<td>2.75</td>
<td>3.13</td>
<td>3.2</td>
</tr>
<tr>
<td>Texas</td>
<td>recourse</td>
<td>3.46</td>
<td>2.74</td>
<td>2.97</td>
<td>3.49</td>
<td>2.76</td>
<td>3.14</td>
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<tr>
<td>Utah</td>
<td>recourse</td>
<td>3.45</td>
<td>2.75</td>
<td>3.05</td>
<td>3.49</td>
<td>2.78</td>
<td>3.11</td>
<td>3.89</td>
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<tr>
<td>Vermont</td>
<td>recourse</td>
<td>3.45</td>
<td>2.74</td>
<td>3.1</td>
<td>3.5</td>
<td>2.78</td>
<td>3.18</td>
<td>3.16</td>
</tr>
<tr>
<td>Virginia</td>
<td>recourse</td>
<td>3.47</td>
<td>2.75</td>
<td>3.01</td>
<td>3.51</td>
<td>2.78</td>
<td>3.15</td>
<td>3.73</td>
</tr>
<tr>
<td>Washington</td>
<td>non-recourse</td>
<td>3.48</td>
<td>2.75</td>
<td>3.02</td>
<td>3.48</td>
<td>2.76</td>
<td>3.12</td>
<td>3.63</td>
</tr>
<tr>
<td>West_Wirginia</td>
<td>recourse</td>
<td>3.45</td>
<td>2.74</td>
<td>3.05</td>
<td>3.5</td>
<td>2.78</td>
<td>3.18</td>
<td>3.2</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>non-recourse</td>
<td>3.45</td>
<td>2.73</td>
<td>2.84</td>
<td>3.48</td>
<td>2.75</td>
<td>3.11</td>
<td>3.6</td>
</tr>
<tr>
<td>Wyoming</td>
<td>recourse</td>
<td>3.47</td>
<td>2.76</td>
<td>3.1</td>
<td>3.54</td>
<td>2.81</td>
<td>3.13</td>
<td>3.31</td>
</tr>
</tbody>
</table>


Results

This statistical elaboration compares the means of each type of mortgage interest rate in recourse and non-recourse states. An analysis of histograms revealed that the data under scrutiny did not fulfill the assumptions necessary to apply a parametric test. The assumption was that the data are not normally distributed. Both skewness and kurtosis statistics corroborated this assumption.

Based on histogram inspections, skewness, and kurtosis statistics corroborated by the Kolmogorov-Smirnov test presented below, we determined that assumptions for a t-test are not met and decided to proceed with a non-parametric equivalent.
### TABLE 2. Descriptive statistics

<table>
<thead>
<tr>
<th>Mortgage type</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 year fixed</td>
<td>Skewness</td>
<td>6.144</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>40.638</td>
</tr>
<tr>
<td>15 year fixed</td>
<td>Skewness</td>
<td>4.396</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>26.639</td>
</tr>
<tr>
<td>5/1 ARM</td>
<td>Skewness</td>
<td>0.764</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>3.471</td>
</tr>
<tr>
<td>30 yr fixed mtg refi</td>
<td>Skewness</td>
<td>6.180</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>41.277</td>
</tr>
<tr>
<td>15 yr fixed mtg refi</td>
<td>Skewness</td>
<td>5.279</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>33.725</td>
</tr>
<tr>
<td>7/1 ARM refi</td>
<td>Skewness</td>
<td>2.271</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>8.117</td>
</tr>
<tr>
<td>15 yr jumbo fixed mtg refi</td>
<td>Skewness</td>
<td>1.052</td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>-0.285</td>
</tr>
</tbody>
</table>

Source: own elaboration.

### TABLE 3. Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th>Mortgage type</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 year fixed</td>
<td>0.351</td>
<td>50</td>
<td>0.000</td>
</tr>
<tr>
<td>15 year fixed</td>
<td>0.296</td>
<td>50</td>
<td>0.000</td>
</tr>
<tr>
<td>5/1 ARM</td>
<td>0.137</td>
<td>50</td>
<td>0.020</td>
</tr>
<tr>
<td>30 yr fixed mtg refi</td>
<td>0.334</td>
<td>50</td>
<td>0.000</td>
</tr>
<tr>
<td>15 yr fixed mtg refi</td>
<td>0.276</td>
<td>50</td>
<td>0.000</td>
</tr>
<tr>
<td>7/1 ARM refi</td>
<td>0.158</td>
<td>50</td>
<td>0.003</td>
</tr>
<tr>
<td>15 yr jumbo fixed mtg refi</td>
<td>0.298</td>
<td>50</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Lilliefors Significance Correction*

Source: own elaboration.

The results of the Kolmogorov-Smirnov tests for each type of mortgage interest rate data distribution permit application of the Mann-Whitney U Test to determine whether there is a statistically significant difference between the median of interest rates in recourse and recourse-states.
TABLE 4. Mann-Whitney U Test

<table>
<thead>
<tr>
<th>Effect size</th>
<th>30 year fixed</th>
<th>15 year fixed</th>
<th>5/1 ARM</th>
<th>30 yr fixed mtg refi</th>
<th>15 yr fixed mtg refi</th>
<th>7/1 ARM refi</th>
<th>15 yr jumbo fixed mtg refi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>181.500</td>
<td>145.500</td>
<td>138.000</td>
<td>183.000</td>
<td>166.000</td>
<td>170.500</td>
<td>146.500</td>
</tr>
<tr>
<td>Z</td>
<td>−0.342</td>
<td>−1.253</td>
<td>−1.417</td>
<td>−0.302</td>
<td>−0.730</td>
<td>−0.610</td>
<td>−1.206</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.733</td>
<td>0.210</td>
<td>0.157</td>
<td>0.763</td>
<td>0.466</td>
<td>0.542</td>
<td>0.228</td>
</tr>
<tr>
<td>Exact Sig. [2*(1-tailed Sig.)]</td>
<td>0.742b</td>
<td>0.223b</td>
<td>0.163b</td>
<td>0.779b</td>
<td>0.485b</td>
<td>0.549b</td>
<td>0.233b</td>
</tr>
</tbody>
</table>

*Grouping Variable: Recourse/Non-recourse

*Not corrected for ties

Source: own elaboration.

TABLE 5. Report on statistics

<table>
<thead>
<tr>
<th>Effect size</th>
<th>30 year fixed</th>
<th>15 year fixed</th>
<th>5/1 ARM</th>
<th>30 yr fixed mtg refi</th>
<th>15 yr fixed mtg refi</th>
<th>7/1 ARM refi</th>
<th>15 yr jumbo fixed mtg refi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-recourse</td>
<td>N</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Median</td>
<td>3.4600</td>
<td>2.7500</td>
<td>3.0750</td>
<td>3.5050</td>
<td>2.7900</td>
<td>3.1300</td>
<td>3.4000</td>
</tr>
<tr>
<td>Re-course</td>
<td>N</td>
<td>39</td>
<td>39</td>
<td>39</td>
<td>39</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>r</td>
<td>0.05</td>
<td>0.18</td>
<td>0.2</td>
<td>0.04</td>
<td>0.1</td>
<td>0.09</td>
<td>0.17</td>
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</tbody>
</table>

Source: own elaboration.

A Mann-Whitney U Test revealed no significant difference in the 30 years-term mortgage interest rates levels in recourse (Md = 3.46, n = 39) and non-recourse states (Md = 3.46, n = 10), U = 181500, z = −0.342, p = 0.742, r = 0.05.

We found no statistically significant evidence to reject any hypothesis in favor of an alternative. One must conclude, therefore, that there are no grounds to claim the existence of pricing differences (interest rates) resulting from a given state pursuing recourse or non-recourse legislation.

Conclusion

Counterintuitively and in contrast to various studies suggesting a causal relationship between recourse and default probability – this study shows no statistical evidence to support
a hypothesis claiming a relationship between the availability of deficiency judgments and mortgage pricing in any particular state. None of the seven types of mortgage pricing show any statistically significant relationship with the presence of recourse remedies. This seems to contradict previous studies indicating deficiency judgment availability as a factor of default. There are a few potential explanations for this result. Recourse availability and strategic default with regard to the mortgage market is overestimated. The adverse effects of strategic defaults may be offset by lavish federal programs aimed at affected lenders. The lack of consensus over recourse being an effective deterrent for strategic defaulters may not be a factor in default probability assessment, or (therefore) pricing policy.

At the same time, we recognize that our calculations were based on highly aggregated data for a selected point in time. Thus, further research on disaggregated data is needed to account for the potential influences of other factors. Having said that, this work should be considered an important preliminary exploration that sets the stage for further analysis.

Notes

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References


Internet sources


Methods of Raising Funds for Purchasing of New Cruise Ships by International Corporations

Abstract

The world’s cruise corporations regularly purchase large, luxurious cruise ships. In accordance with the Cruise Line International Association, 33 new ocean cruise ships will be available on the market by 2020. These types of capital expenditures are associated with large financial outlays of up to $1 billion. The leading cruise corporations are not able to finance purchases of new units with their own resources and therefore look for different solutions. Available publications focus mainly on issues related to purchasing cargo ships, not cruise ships. The objective of the article is to identify sources of funding of new cruise ships. Our analysis identifies the average capital expenditure associated with purchasing new cruise ships and factors that influence it. The most popular methods for raising such capital are also provided. Our research methodology relies on data exploration method, a desk research method and comparative analysis.

Keywords: business investment, capital expenditure, corporate investment

JEL: G3, G310

Introduction

For the last two decades, a few ocean cruise ships enter the market every year in response to growing demand for sea cruises. According to the Cruise Line International Association
Joanna Kizielewicz

(CLIA), annual average growth in demand for ocean cruise travels is estimated to be 7.2% per annum [Florida Caribbean Cruise Association, 2013, p. 6]. Cruise line owners also face a competitive market for customers, continuously tracking market trends, conduct regular consumer market research, and try to respond with new technologies to changing expectations of customer preferences. These often complex reasons drive capital expenditures and investment in new ships.

Cruise tourism corporations use, and compete through, innovation to attract new customers. The manifestation of this competition influences the modernization of cruise ship fleets every few years. As a result a dozen or more high capacity cruise ships (up to 6 thousand passengers and 200 thousand GT (Gross Tonnage)) have been introduced to the market annually with 50 new units contracted until 2022. The largest ships will accommodate up to 5.4 thousand passengers and cost more than 1.3 billion US dollar (Table 2). These larger cruise ships also cut unit costs per a passenger, bring economies of scale, and lower unit operating costs [Lester, Weeden, 2004, pp. 39–50; Wood, 2004, pp. 133–146]. The larger the cruise ship is (i.e. designed for a larger number of passengers and crew), the lower unit costs per a cruise passenger. Globalization and consolidation focused on increasing profitability drive the contemporary cruise ship market [Dowling, 2006, p. 424].

The cruise ship industry has been the subject of many research on investments in the cruise ship market [Byung-Wook, 2005, pp. 203–217], partnerships in economic activities among cruise ship owners [Hall, Braithwaite 1990, pp. 339–347], cruise ship market globalization [Wood, 2000, pp. 345–365], the functioning of that market in different regions of the world [Hobson, 1993, pp. 345–365], and challenges faced by cruise corporations [Veronneau, Roy, 2009, pp. 128–139]. There is, however, a gap in the literature concerning funding for the construction and purchase of new cruise ships. In this study we identify sources of funding for new cruise ships available to the leading cruise companies. In addition, we consider the following research problems (1) Historically, what methods of financing cruise ship purchases have been used (2) What are the plans for introducing new cruise ships in the next few years? (3) What methods of financing do the largest world cruise corporations now choose when purchasing new cruise ships? We employ an exploration method of data, i.e., extraction and data harvesting (data mining) from the databases. We also develop several methods of processing and presenting results, such as qualitative and quantitative data analysis as well as classification and grouping. A desk research method and comparative analysis are also applied.

Methods of Financing the Construction of Cruise Ships in the Past

Historical data on financing new vessel construction originates from the 16th century, when the first marine expeditions were organized. However, most financing data dates
back to the first half of the 19th century, with the building of steamships [Stopford, 2009, p. 270]. At that time, the value of a vessel was commonly divided into 64 parts, referred to as “sixty-fourth” company shares, which investors could then acquire. Through this process three main groups of investors were established i.e.: individuals, individuals organized into partnerships, and investors in joint stock companies [Stopford, 2009, p. 271]. However, the vast majority of vessels belonged to private owners.

As ship sizes increased, larger financial resources were necessary and joint stock companies began to play a more important role. However, this form of financing involved numerous audits and allowed easier public access to company information. A number of owners therefore still preferred traditional forms of financing in which a family enterprise with capital borrowed the money from a variety of banks and private investors.

From the mid-19th century to the 1950s, dozens of luxury ocean passenger liners were introduced, such as: ”Deutschland” in 1901, belonging to the Hamburg America Line [Urbanowicz, 1977, p. 73]; ”France”, belonging to the Compagnie Générale Transatlantique [Miller, 1997, p. 8]; and ”Titanic”, belonging to the International Mercantile Marine, (operated by White Star Line) [Lück, 2007, p. 473]. During this period, it was common to set up “one-ship companies” companies that were registered as entities funding the construction using highly leveraged charter-backed finance.

Ocean liners were superseded in the 1960s and 70s by more economical and faster cruise ships. The first cruise ship (and first cruise corporation) was Norwegian Caribbean Line (NCL) operating in 1966, followed in 1968 by Royal Caribbean International and Carnival Cruise Lines in 1972, which are currently the largest cruise ship owners [Kizielewicz, 2015, p. 29]. The first mortgage on the hulls of these ships – with little additional security – was the main source of vessel financing offered by bankers [Stopford, 2009, p. 263].

**Opportunities to Raise Financing for the Construction of New Cruise Ships by Ship Owners**

Nowadays, ship owner companies rely on a wide range of options to acquire capital to purchase new cruise ships, ranging from a company’s own equity or bank loans to public offerings and even special purpose companies. No cruise ship company can self-finance the construction and purchase of new cruise ships, which are currently the most expensive ships built in the world. Container ships and tankers can cost up to $150 million, and LNG tankers up to $225 million [Stopford, 2009, p. 269]. The average cost of building a cruise ship is at least twice as high, and the most expensive among them can cost up to $1.3 billion. These are very capital-intensive investments with returns estimated over a period of from 25 to 30 years. Hence, as a rule, purchase budgets are composed of a variety of sources to spread the financial risk.
Even the largest cruise ship corporations have experienced budgetary problems regarding new cruise ship financing. As a result, financial institutions treat the cruise ship industry as a high risk market and impose a number of requirements on ship owners seeking funding for the new ship construction. Bankers prefer granting loans to entities that have a well-defined corporate structure and well-defined ownership [Stopford, 2009, p. 269] but the cruise ship industry is made up of corporations with complicated organizational structures that bring together operators from all over the world, and are subject to differing tax laws. These issues create numerous challenges for potential creditors. The cruise ship owners usually pursue four main funding sources: i.e. private funds; bank financing; capital markets; or special purpose vehicles (Figure 1). The selection depends on various determinants, i.e., the financial condition of the borrower; size of the investment project; enterprise credibility; and the business plan. The leading cruise corporations are listed on the stock exchanges and a significant part of the funds they obtain are through public offerings. Mortgage backed loans are also important financing sources (Table 1).
### TABLE 1. Potential methods of financing the construction of new ships

<table>
<thead>
<tr>
<th>Structure of financing</th>
<th>Features of Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own funds</td>
<td>Equity finance provided by the owner or private investors in return for shares in the privately held company.</td>
</tr>
<tr>
<td>Private investment</td>
<td>Equity loan arranged privately with family, colleagues, high net worth individuals.</td>
</tr>
<tr>
<td>Mortgage backed loan</td>
<td>Term loan provided by a bank, secured against a mortgage on the ship(s). Large loans may be syndicated between several banks.</td>
</tr>
<tr>
<td>Corporate loan</td>
<td>Loan secured against the company's balance sheet.</td>
</tr>
<tr>
<td>Shipyard credit</td>
<td>Loan provided or guaranteed by the government or an agency to assist domestic shipyards in obtaining orders.</td>
</tr>
<tr>
<td>Mezzanine finance</td>
<td>Finance containing both debt and equity elements.</td>
</tr>
<tr>
<td>Private placement</td>
<td>Sale of equity or corporate debt to one or several investment institutions.</td>
</tr>
<tr>
<td>Public offering</td>
<td>Offering shares sold by subscription on a stock exchange and subsequently traded on a secondary market.</td>
</tr>
<tr>
<td>Bond issue</td>
<td>Long term security issued in the capital market, usually with interest payments every six months and principal repaid on maturity.</td>
</tr>
<tr>
<td>Special purpose company or SPAC</td>
<td>Shares in a special purpose company sold privately by individuals or listed on the stock exchange.</td>
</tr>
<tr>
<td>Limited partnership</td>
<td>Limited liability partnership set up as a vehicle for financing ships.</td>
</tr>
<tr>
<td>Finance lease</td>
<td>Long term tax-efficient finance based on the sale of a ship to company which benefits from tax allowance and leases the ship back to user.</td>
</tr>
<tr>
<td>Operating lease</td>
<td>Short term lease, generally less than seven years, which does not have to be shown on the leases balance sheet.</td>
</tr>
<tr>
<td>Securitization</td>
<td>Financing structure designed to separate the assets from company management.</td>
</tr>
</tbody>
</table>


Many ship owners still choose commercial bank debt, which provides the foundation of most public and private shipping companies’ capital. According to the OECD report on ship financing “commercial loans can be arranged to finance the construction of vessels and/or as their permanent “take out” financing. In addition to commercial banks, export credit banks such as KEXIM play an active role in offering competitively priced construction and permanent financing for vessels” [OECD, 2007, p. 4]. Cruise ship companies pay installments in the form of a percentage (typically 5–10%) of the value of building contracts during the ship’s construction stage, which are generally concluded in 2–4 years, after which a completed ship is expected to be placed on the market.

Cruise ship owners also take advantage of the financial services offered by Traditional Shipping Banks, such as HSH Nordbank with shipping loan portfolios of $29.5 billion and the Royal Bank of Scotland (RBS) with $17.5 billion [OECD, 2007, p. 9].
Financial institutions offering resources for new units often impose a number of requirements for cruise ship owners. According to the OECD report, these requirements include [OECD, 2007, p. 12]:
- Mortgage on subject vessels.
- Assignment of Borrower’s time charters and earnings.
- Assignment of the insurance on each of the vessels subject to a mortgage.
- Assignment of the vessel management agreement with Ship Manager.
- Pledge of Borrower’s retention account.
- Assignment of Borrower’s interest in any hedging arrangement.

A less attractive financing option involves so-called “Refund Guarantees” options funding. This elevates confidence in the yard that the owner is good for all promised payments. A ship owner must also trust that the shipyard will execute the order in a timely manner. Such transactions are often supported by local state-affiliated banks such as the Bank of China, The Export-Import Bank of China and The Export-Import Bank of Korea [OECD, 2007, p. 9].

For more than a decade, substantial financial resources for development and investment have been collected by the ship owners in public offerings on the stock exchange. All mainstream cruise shipping corporations in the world are currently listed on a stock exchange. Only a small percentage of financing is by private individuals, as such investment requires freezing capital for a long period of time and affects company cash flow and leverage.

Another important financing method is the Special Purpose Acquisition Company (SPAC), for which financial support of a new vessel construction is the main objective. In recent years, several such entities have been established etc.: FreeSeas Inc., International Shipping Enterprises, Rand Acquisition Corp and Star Maritime [OECD, 2007, p. 35].

The method chosen to finance ship construction and purchase has a significant impact on the financial liquidity of ship owners and must be carried out sensibly.

The Financing of Cruise Ships by the World’s Leading Cruising Corporations

Introduction of a new cruise ship on the market involves high investment outlays. As ships are getting bigger and more advanced technology is used in competitive markets, their production costs are also rising. Until recently, construction costs of vessels averaged some 500 million dollars. That figure can now exceed one billion dollars (Table 2).
### TABLE 2. The selected cruise ships contracted by 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Cruise Line</th>
<th>Ship name</th>
<th>Capacity</th>
<th>Tonnage GT</th>
<th>Cost in USD</th>
<th>Yard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIDA Cruises</td>
<td>TBD*</td>
<td>3 250</td>
<td>125 000</td>
<td>650 000 000</td>
<td>Mitsubishi</td>
</tr>
<tr>
<td>2</td>
<td>Carnival Cruise Line</td>
<td>Carnival Vista</td>
<td>4 000</td>
<td>135 000</td>
<td>780 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>3</td>
<td>Holland America Line</td>
<td>Koningsdam</td>
<td>2 660</td>
<td>99 000</td>
<td>520 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>4</td>
<td>Regent Seven Seas</td>
<td>Explorer</td>
<td>738</td>
<td>54 000</td>
<td>450 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>5</td>
<td>Royal Caribbean International</td>
<td>Harmony</td>
<td>5 400</td>
<td>225 282</td>
<td>1 300 000 000</td>
<td>STX France</td>
</tr>
<tr>
<td>6</td>
<td>Royal Caribbean International</td>
<td>Ovation of the Seas</td>
<td>4 180</td>
<td>167 800</td>
<td>1 032 000 000</td>
<td>Meyer Werft</td>
</tr>
<tr>
<td>7</td>
<td>Star Cruises</td>
<td>Genting Word</td>
<td>3 364</td>
<td>150 000</td>
<td>960 000 000</td>
<td>Meyer Werft</td>
</tr>
<tr>
<td>8</td>
<td>TUI</td>
<td>Mein Schiff 5</td>
<td>2 500</td>
<td>97 000</td>
<td>515 000 000</td>
<td>Meyer-Turku/STX Finland</td>
</tr>
<tr>
<td>9</td>
<td>MSC Cruises</td>
<td>TBD* – Vista 1</td>
<td>4 500</td>
<td>167 600</td>
<td>1 000 000 000</td>
<td>STX Finland</td>
</tr>
<tr>
<td>10</td>
<td>MSC Cruises</td>
<td>TBD* – Seaside 1</td>
<td>4 140</td>
<td>154 000</td>
<td>938 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>11</td>
<td>Norwegian Cruise Line</td>
<td>Norwegian Bliss</td>
<td>4 200</td>
<td>163 000</td>
<td>916 000 000</td>
<td>Meyer Werft</td>
</tr>
<tr>
<td>12</td>
<td>Princess Cruises</td>
<td>TBD*</td>
<td>3 560</td>
<td>143 000</td>
<td>804 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>13</td>
<td>Star Cruises</td>
<td>TBD*</td>
<td>3 364</td>
<td>150 000</td>
<td>960 000 000</td>
<td>Meyer</td>
</tr>
<tr>
<td>14</td>
<td>TUI</td>
<td>Mein Schiff 6</td>
<td>2 500</td>
<td>97 000</td>
<td>515 000 000</td>
<td>Meyer-Werft/STX Finland</td>
</tr>
<tr>
<td>15</td>
<td>Carnival Cruise Line</td>
<td>TBD*</td>
<td>3 954</td>
<td>133 500</td>
<td>800 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>16</td>
<td>Celebrity Cruises</td>
<td>TBD*</td>
<td>2 900</td>
<td>117 000</td>
<td>868 000 000</td>
<td>STX France</td>
</tr>
<tr>
<td>17</td>
<td>MSC Cruises</td>
<td>TBD*</td>
<td>4 140</td>
<td>154 000</td>
<td>938 000 000</td>
<td>Fincantieri</td>
</tr>
<tr>
<td>18</td>
<td>Norwegian Cruise Line</td>
<td>TBD*</td>
<td>4 200</td>
<td>164 600</td>
<td>1 090 000 000</td>
<td>Meyer Werft</td>
</tr>
<tr>
<td>19</td>
<td>Royal Caribbean International</td>
<td>TBD*</td>
<td>5 400</td>
<td>225 000</td>
<td>1 300 000 000</td>
<td>STX France</td>
</tr>
<tr>
<td>20</td>
<td>TUI Cruises</td>
<td>Mein Schiff 7</td>
<td>2 500</td>
<td>97 000</td>
<td>625 000 000</td>
<td>STX Finland/STX Finland Oy</td>
</tr>
<tr>
<td>21</td>
<td>MSC Cruises</td>
<td>TBD*</td>
<td>4 500</td>
<td>167 600</td>
<td>1 000 000 000</td>
<td>STX France</td>
</tr>
<tr>
<td>22</td>
<td>Norwegian Cruise Line</td>
<td>TBD*</td>
<td>4 200</td>
<td>164 600</td>
<td>1 090 000 000</td>
<td>Meyer Werft</td>
</tr>
<tr>
<td>23</td>
<td>TUI Cruises</td>
<td>Mein Schiff 8</td>
<td>2 500</td>
<td>97 000</td>
<td>625 000 000</td>
<td>STX Finland/STX Finland Oy</td>
</tr>
</tbody>
</table>

*TBA – to be announced, EST. – Estimated,

Most cruise ships are ordered by the world leading cruise shipping companies i.e.: Carnival Cruise Line, Royal Caribbean Cruises and Norwegian Cruise Lines (Table 3). In 2016, cruise ship owners spent more than $6 billion on the construction and purchase of new cruise ships.

TABLE 3. The estimated investment of cruise ship owners on the new cruise ships between 2016–2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Financing of new cruise ships (in USD)</th>
<th>Investments which were not included</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6 294 500 000</td>
<td>Viking Ocean, Seabourn</td>
</tr>
<tr>
<td>2017</td>
<td>5 115 000 000</td>
<td>Star Clippers, Viking Ocean &amp; Silversea</td>
</tr>
<tr>
<td>2018</td>
<td>6 175 000 000</td>
<td>Crystal &amp; Seabourn</td>
</tr>
<tr>
<td>2019</td>
<td>3 575 000 000</td>
<td>AIDA Cruises &amp; Costa Cruises</td>
</tr>
<tr>
<td>2020</td>
<td>1 800 000 000</td>
<td>Virgin, AIDA Cruises, Costa cruises, Carnival Corp.</td>
</tr>
<tr>
<td>2021</td>
<td>950 000 000</td>
<td>Virigin &amp; Carnival Corp.</td>
</tr>
<tr>
<td>2022</td>
<td>900 000 000</td>
<td>Virigin &amp; Carnival Corp.</td>
</tr>
<tr>
<td>Total</td>
<td>24 809 500 000</td>
<td></td>
</tr>
</tbody>
</table>


Carnival Corporation & plc, which holds a market share of 48% [Carnival Corporation & plc, 2015, p. 1] operates 100 cruise ships under the Carnival Cruise, Line, Holland America Line, Princess Cruises, Seabourn, AIDA Cruises, Costa Cruises, Cunard, P&O Cruises (Australia) and P&O Cruises (UK). By 2018, Carnival Corporation & plc plans to launch ten new cruise ships that each accommodate a minimum of four thousand passengers. Carnival Corporation & plc is the only cruise line company included in both the New York and London Stock Exchanges, and the only group in the world included in both the S&P 500 and the FTSE 100 indices [Carnival Corporation & plc, 2015, p. 1]. Cruise ships contracted by Carnival Corporation & plc are financed within tranches under the contract. The costs include, inter alia: engineering fees, capitalized interest, construction oversight, and various owner supplied items [Carnival Corporation & plc, 2015, p. 17]. For example, the Carnival Corporation & plc has ten ships for construction mentioned in the contract with an aggregate passenger capacity of more than 28,200 lower berths [Carnival Corporation & plc, 2015, p. 20], and their costs are estimated to be around $6.2 billion (Table 4).

Carnival Corporation & plc’s investments vessel construction and equipment equals about $2.3 billion, $2.1 billion, and $2.6 billion in 2012, 2013, and 2014, respectively. Principal long-term debt repayments were $1.05 billion (2012), $2.3 billion (2013), and $2.46 billion (2014) [Carnival Corporation & plc, 2015, p. 9].
TABLE 4. **Financing of cruise ships under construction by Carnival Corporation & plc from 2014 to 2018**

<table>
<thead>
<tr>
<th>Year</th>
<th>Financing of new cruise ships (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.5 billion</td>
</tr>
<tr>
<td>2015</td>
<td>1.6 billion</td>
</tr>
<tr>
<td>2016</td>
<td>1.9 billion</td>
</tr>
<tr>
<td>2017</td>
<td>0.8 billion</td>
</tr>
<tr>
<td>2018</td>
<td>1.4 billion</td>
</tr>
</tbody>
</table>


TABLE 5. **Long-term debt and short-term borrowings of Carnival Corporation & plc (in USD)**

<table>
<thead>
<tr>
<th>Kind of debt</th>
<th>Details</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Term Debt</td>
<td>Export Credit Facilities</td>
<td>5 030 000 000</td>
<td>4 638 000 000</td>
</tr>
<tr>
<td></td>
<td>Bank Loans</td>
<td>1 914 000 000</td>
<td>1 270 000 000</td>
</tr>
<tr>
<td></td>
<td>Private Placement Notes</td>
<td>310 000 000</td>
<td>269 000 000</td>
</tr>
<tr>
<td></td>
<td>Publicity-Traded Notes</td>
<td>2 219 000 000</td>
<td>2 219 000 000</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>27 000 000</td>
<td>26 000 000</td>
</tr>
<tr>
<td>Short-Term Borrowings</td>
<td>Euro bank loans (h)</td>
<td>60 000 000</td>
<td>13 000 000</td>
</tr>
<tr>
<td></td>
<td>U.S. dollar-denominated commercial paper (h)</td>
<td>-</td>
<td>653 000 000</td>
</tr>
<tr>
<td>Total Debt</td>
<td></td>
<td>9 560 000 000</td>
<td>9 088 000 000</td>
</tr>
<tr>
<td>Less short-term borrowings</td>
<td></td>
<td>(60 000 000)</td>
<td>(666 000 000)</td>
</tr>
<tr>
<td>Less current portion of long-term debt</td>
<td></td>
<td>(1 408 000 000)</td>
<td>(1 059 000 000)</td>
</tr>
<tr>
<td>Total Long-term Debt</td>
<td></td>
<td>8 092 000 000</td>
<td>7 363 000 000</td>
</tr>
</tbody>
</table>


In 2014, Carnival Corporation & plc’s total long-term loans were approximately $7.4 billion, with export credits exceeding $4.6 billion (Table 5).

It should be noted that cruise ship owners finance investments go beyond newly built cruise ships. Their property includes ships and ship improvements, ships under construction, land buildings and improvements (including leasehold improvements) and port facilities, as well as computer hardware and software, transportation equipment and other items. In the 2013 Carnival Corporation & plc Annual Report stated that those investments amounted to $2.12 billion and by 2014, it reached $2.58 billion. [Carnival Corporation & plc, 2014, p. 14].
These numbers, indicate that considerable resources for finance investments were obtained by Carnival Corporation & plc through long-term loans (Table 6).

**TABLE 6. The scheduled annual maturities of the debt of Carnival Corporation & plc**

<table>
<thead>
<tr>
<th>Year</th>
<th>Short-Term Borrowings</th>
<th>Long-Term Debt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>666 000 000</td>
<td>1 059 000 000</td>
<td>1 725 000 000</td>
</tr>
<tr>
<td>2016</td>
<td>-</td>
<td>1 785 000 000</td>
<td>1 785 000 000</td>
</tr>
<tr>
<td>2017</td>
<td>-</td>
<td>634 000 000</td>
<td>634 000 000</td>
</tr>
<tr>
<td>2018</td>
<td>-</td>
<td>1 302 000 000</td>
<td>1 302 000 000</td>
</tr>
<tr>
<td>2019</td>
<td>-</td>
<td>685 000 000</td>
<td>685 000 000</td>
</tr>
<tr>
<td>There after</td>
<td>-</td>
<td>1 957 000 000</td>
<td>1 957 000 000</td>
</tr>
<tr>
<td>Total</td>
<td>666 000 000</td>
<td>8 422 000 000</td>
<td>8 422 000 000</td>
</tr>
</tbody>
</table>


In its 2014 annual report, Royal Caribbean Cruises Ltd. identifies 2013 purchases of property and equipment that reached over $763.7 million, and $2.8 billion in 2014. Long-term debt repayments were $2.87 billion in 2013, and $3.72 million in 2014 [Royal Caribbean Cruises Ltd., 2014, p. 71]. This indicates that long-term loans have been a considerable source of financing investments by Royal Caribbean Cruises, Ltd. (Table 7).

**TABLE 7. Financing of ships under construction by Royal Caribbean Cruises Ltd from 2012 to 2014**

<table>
<thead>
<tr>
<th>Year</th>
<th>Financing of new cruise ships (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>13 300 000</td>
</tr>
<tr>
<td>2013</td>
<td>17 900 000</td>
</tr>
<tr>
<td>2014</td>
<td>28 800 000</td>
</tr>
</tbody>
</table>


Royal Caribbean Cruises Ltd.’s aggregate cost of ordered ships at the end of 2014 was about five billion US Dollars [Royal Caribbean Cruises Ltd., 2014, p. 97]. RCL has to pay for the construction of new ships in progress, as well as planning, design, interest and other associated costs. For example, in 2012 RCL paid $13.3 million, in 2013 – $17.9 million and in 2014 – $28.8 million. In 2014, RCL signed a contract with STX France for delivery of four ships scheduled for 2018. To finance these ships, in 2014 RCL entered
into credit agreements to finance two of these ships for up to $215.9 million and $1.1 billion, respectively. RCL also received commitments for the unsecured financing of those ships for up to 80% of the contract price because of the financial support guaranteed by COFACE (The Compagnie Française d’Assurance pour le Commerce Extérieur) [Royal Caribbean Cruises Ltd., 2014, p. 96]. At the beginning of 2015, RCL also reached conditional agreements with STX France to build two more ships known as “Project Edge”, which are expected to reach the market by 2018 and the first half of 2020 [Royal Caribbean Cruises Ltd., 2014, p. 96]. Another ship (under the name “Harmony”) was recently ordered from STX France by Royal Caribbean Cruise Lines for $1.3 billion. This unit will accommodate 5.4 thousand passengers and its tonnage will be 225 282 GT. The same cruise company also ordered a smaller unit called "Ovation of the Seas" (167.8 GT) for over a billion dollars from the Meyer Werft shipyard in Papenburg for 2016. Similar ships will be introduced by the company in 2018 and 2019. In addition, Norwegian Cruise Line (NCL) signed a contract with Meyer Werft shipyard in Papenburg to purchasing three new cruise ships by 2019. The first ship will be completed in 2017 and will cost $920 million, and the others will cost a total of $2.2 billion (Table 8). These vessels will accommodate more than 4.2 thousand passengers. NCL has export credit financing in place covering 80% of their contract prices [Norwegian Cruise Line Holdings Ltd., 2014, p. 114].

TABLE 8. Financing of ships under construction by Norwegian Cruise Line from 2014 to 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Financing of new cruise ships (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>897 818 000</td>
</tr>
<tr>
<td>2015</td>
<td>514 375 000</td>
</tr>
<tr>
<td>2016</td>
<td>832 640 000</td>
</tr>
<tr>
<td>2017</td>
<td>892 362 000</td>
</tr>
<tr>
<td>2018</td>
<td>776 053 000</td>
</tr>
<tr>
<td>2019</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>3 913 248 000</td>
</tr>
</tbody>
</table>


NCL finances the purchase of new cruise ships, mainly through the acquisition of long-term loans submitted by financial institutions. For example, in July 2014, NCL entered into the €666 million Seahawk 1 term loan and the €666 million Seahawk 2 term loan to finance 80% of the contract price of two Breakaway Plus Class Ships, which must be delivered by 2019 [Norwegian Cruise Line, 2014, p. 101] (Table 9).
TABLE 9. Long-term debts intended to finance the cruise ships by Norwegian Cruise Line

<table>
<thead>
<tr>
<th>Long-term debt</th>
<th>Amount of a long term debt</th>
<th>Maturities through</th>
<th>Balance in 2013 (in USD)</th>
<th>Balance in 2014 (in USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norwegian Epic term loan</td>
<td>€662.9 million</td>
<td>2022</td>
<td>599 996 000</td>
<td>535 708 000</td>
</tr>
<tr>
<td>Pride of Hawai'i loan</td>
<td>€308.1 million</td>
<td>2018</td>
<td>167 392 000</td>
<td>130 194 000</td>
</tr>
<tr>
<td>Norwegian Jewel term loan</td>
<td>$334.1 million</td>
<td>2017</td>
<td>108 087 000</td>
<td>81 065 000</td>
</tr>
<tr>
<td>Pride of America Hermes loan</td>
<td>€258.0 million</td>
<td>2017</td>
<td>88 936 000</td>
<td>63 526 000</td>
</tr>
<tr>
<td>Norwegian Jewel term loan</td>
<td>€126.0 million</td>
<td>2017</td>
<td>47 837 000</td>
<td>57 989 000</td>
</tr>
<tr>
<td>Norwegian Jade term loan</td>
<td>€126.0 million</td>
<td>2017</td>
<td>48 105 000</td>
<td>58 524 000</td>
</tr>
<tr>
<td>Seahawk 1 term loan</td>
<td>€666.0 million</td>
<td>2030</td>
<td>-</td>
<td>40 845 000</td>
</tr>
<tr>
<td>Seahawk 2 term loan</td>
<td>€666.0 million</td>
<td>2031</td>
<td>-</td>
<td>40 845 000</td>
</tr>
<tr>
<td>Marina newbuild loan</td>
<td>$379.9 million</td>
<td>2023</td>
<td>-</td>
<td>379 868 000</td>
</tr>
<tr>
<td>Riviera newbuild loan</td>
<td>$427.2 million</td>
<td>2024</td>
<td>-</td>
<td>427 184 000</td>
</tr>
<tr>
<td>Sirena loan</td>
<td>$82.0 million</td>
<td>2019</td>
<td>-</td>
<td>82 000 000</td>
</tr>
</tbody>
</table>


In 2011 NCL entered into agreements with Star Cruise Management Limited Crystal Aim Limited and Genting HK. Moreover, in 2014 it concluded a Merger Agreement with funds affiliated with Apollo and other owners for total of $3.025 billion. For example, Star Cruises, together with its associate NCL, made a deal with KfW IPEX-Bank to finance construction of a new cruise ship at the Meyer Werft shipyard in Papenburg in Germany. KfW IPEX-Bank, together with Crédit Agricole Corporate and Investment Bank and the Singapore branch of DNB Bank ASA, submitted a loan of over 600 million euro [KfW IPEX-Bank, 2014]. Another example involves the cruise ship owner MSC Cruises, which from 2017 to 2022 plans to introduce six units to the cruise market (4.1 thousand passengers), each costing over $900 million.

Cruise ship owners seek more economical units, especially in terms of fuel consumption, exhaust emissions and pollution. Those upgrades are necessary, as EU directives require a reduction of sulphur emissions to the marine environment through, among other things, installation of modern ship engines that raise construction costs. A second factor affecting profitability is the need to reduce costs per passenger and, consequently, lower ticket prices to make them more competitive. The result is a rising demand for larger cruise ships.
Conclusions

The financing of the construction of modern cruise ships has been a major challenge for cruise ship companies. Luxury facilities, modern equipment and navigation technologies to ensure security on the sea, as well as the cost of protecting the marine environment, all increase the capital investment needed in the industry. Our analysis suggests that:

– The growing gross registered tonnage of vessels and enriched cruise ship equipment put pressure on cruise ship construction costs, forcing cruise ship owners to seek alternative methods of financing.

– Currently, those costs calculated per ship range from $0.5 billion to more than $1 billion, which can only be available for cruise ship companies with a strong market position. Cruise ship companies face a wide range of opportunities to raise capital for projects related to the construction or purchase of new vessels; from the most popular, i.e., bank loans, to public offering on the stock exchange.

– As per our research questions formulated at the beginning of this paper, we find that cruise ship-owners have used various forms of financing that include bank loans, public offerings and bond issues, and special purpose companies. However, the majority of cruise ship-owners rely on the long-term loans from financial institutions. Financial institutions impose a number of requirements on such borrowers, including mortgages on vessels and assignment of insurance covering each vessel subjected to a mortgage. Despite the difficulties inherent in funding such large, multi-year investments, several dozen new cruise ships have been contracted coming to market in the next years. It can also be assumed that cruise-line companies are going to order larger and more expensive cruise vessels to meet consumer preferences, market trend expectations and, above all, efficiencies of scale required to increase competitiveness.

Unfortunately, no operator in Poland is investing in cruise ships because construction costs exceed their financial capacity. For example, the Board of Port Gdynia S.A. spent $226.74 million for infrastructure investments in the period 2009 to 2015, which is the largest investment in the history of the port. However, this amount represents only 30% of the cost of a medium-sized cruise ship. Moreover, there is still a belief that Polish society is not interested in participating in marine voyages starting from Polish sea ports. Therefore, investment in this segment of the market is considered nonprofitable. In the near future, Polish tourists will only be able to take advantage of a wide range of sea cruises in the Mediterranean Sea or Caribbean Sea, which are currently offered by travel agencies in Poland. Unfortunately, such trips will start from ports in other countries, e.g.: Copenhagen, Barcelona or Miami.
Notes

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The Perception of Job-related Motivators When Choosing a Career in the Tourism and Hospitality Industry – A Comparative Study Between Polish and Spanish Students

Abstract

The recent rapid growth of the tourism and hospitality industries raises a question about the quantity and quality of the workforce needed in these sectors. In the tourism/hospitality industry, where most services are delivered directly by employees, competitive advantage is primarily attained through people (employees), who are perceived as an integral component of tourism experience. This creates challenges for an industry suffering from high rates of staff turnover, especially of young employees who leave their jobs after graduation, choosing other career paths.

This study presents the job related motivators that students found important when considering their future careers, and investigates the extent to which those motivators can be found in the tourism and hospitality industry. Is the industry able to offer the motivators that will keep the employees willing to choose this particular path? We focus on two groups of potential employees – Polish and Spanish students. The study reveals that both groups generally do not believe that a career in the TH industry offered these motivating factors. We also contrast and compare both groups’ perceptions in this area.

Keywords: tourism and hospitality, job-related motivators, students, career

JEL: I23, J20, J24, Z39
Introduction

In the tourism/hospitality (“TH”) industry most services depend on human performance [Kim, Park, 2013, p. 70] and competitive advantage is attained through people. Attracting and retaining well-educated, well-trained, motivated and committed employees is critical [Kusluvan, Kusluvan, 2000, p. 251], but also seems to be a chronic problem for the TH industry worldwide [Lucas, Johnson, 2003, p. 153; Richardson, Butler, 2012, p. 262; Wan et al., 2014, p. 1]. This is particularly connected with Generation Y (young, qualified employees), for whom, according to existing literature, work seems not to be a priority; typically they are not loyal to specific employers and keep their career options open, “here today, gone tomorrow” [Gursoy et al., 2008, p. 453]. Thus, if TH job characteristics do not align with student preferences and expectations, they will leave the industry or fail to enter it upon graduation. Basing on the current studies it is clear that the topic is important.

Lack of motivating factors is reported among the key reasons leading to high staff turnover and consequent loss of a trained and experienced workforce [Richardson, 2009, p. 383; Kusluvan, Kusluvan, 2000, p. 153]. Thus, the question of the attractiveness of tourism and hospitality careers for the young workers, especially in the context of motivating factors is essential to the industry’s log-term success and development. Yet, to date, only a few studies analyze student perception of their future careers in this industry [Richardson, 2010, p. 7].

This study presents the job-related motivators that TH students found important when considering their future careers, and investigates to what extent they believe the TH offers them. To do so, the author considers the perspectives of Polish and Spanish students.

Poland and Spain were selected for this study based on the expected growth in the travel and tourism sectors of both of these countries, and forecasted talent deficit in the next decade, particularly for employees matriculating at the university/college level [Global Talent Trends…, 2015, p. 28, 31, 32].

The results of the study should contribute to better understanding student expectations and perceptions when considering working in the TH, which must respond with generation Y specific characteristics and therefore new, appropriate human resources management standards development and significant work improvements to attract and retain a well-qualified and motivated workforce.

The contribution of this study stems from the fact that while there is abundant research on the characteristics of generation Y employees, studies on the TH industry are limited [Richardson, Thomas, 2012, p. 3], particularly on the issue of job-related motivating factors for potential employees [Grobelna, Marciszewska, 2015].

As David Airey and Athanassios Frontistis [1997] stated when considering tourism employment, “(…) it would be timely to know more about what potential recruits think about it (…) to provide a basis for attracting the best possible work force” [p. 157].
Human Resource Challenges Faced by Poland and Spain in TH

According to the United Nations World Tourism Organization (UNWTO) statistics, in 2014 Europe was the most visited region, attracting more than half of all international tourists [Liczba turystów międzynarodowych w 2014 r., 2015]. Increased tourism has been observed in many countries, including Spain, which in 2014 was visited by almost 65 million foreign tourists [International Tourism…] and enjoyed the highest level of net receipts from travel (EUR 35.4 billion) [Tourism Statistics…] in the EU. In Poland, the number of foreign tourists is also constantly increasing, reaching 16 million in 2014, which is 1.3% more than in the previous year [Charakterystyka przyjazdów cudzoziemców do Polski…, 2015].

According to the World Travel & Tourism Council (WTTC) reports [Travel & Tourism Economic Impact 2015. Spain, p. 1, p. 3; Travel & Tourism Economic Impact 2015. Poland, p. 1, p. 3], the direct contribution of Travel and Tourism to GDP in 2014 was 5.6% (EUR58.8bn) in Spain and 1.7% (PLN29.4bn) in Poland. This indicates the importance of the economic activity, which includes hotels, travel agents, passenger transportation services (including airlines) of restaurants and leisure industries, generated by TH in both countries. Moreover, this direct contribution of Travel and Tourism to GDP is expected to grow in Poland by 4.5% pa, to 2.0% of total GDP (PLN47.6bn) in 2025, and in Spain by 2.3% pa, to 5.7% of GDP (EUR76.2bn). Additionally, in 2014 the total contribution of Travel and Tourism to GDP (including wider effects of investment, the supply chain and induced income impacts) in Spain was 15.2% of GDP (EUR161.0bn); in Poland it reached 4.4% (PLN75.3bn). In 2025, the total GDP share of those industries is expected to be 15.4% in Spain and 4.9% in Poland.

Between the two, Spain, with 260 million tourist accommodation nights in 2014, is among the most popular destinations for non-residents across the EU [Tourism statistics…], making foreign visitors the key for its tourism industry. By contrast, in Poland, although more and more tourists arrive to Poland, domestic tourism still plays an important role in the tourism industry in this country [Turystyka w Polsce w 2014; Charakterystyka przyjazdów cudzoziemców do Polski…, 2015]. Despite these differences tourism can be perceived as an important economic driver of both economies, creating jobs and leading to various social and environmental implications.

Globally, employment in Travel and Tourism accounts for over 100 million jobs and is forecasted to grow [Global Talent Trends…, 2015, p. 8]. This implies an increasing demand for highly qualified employees in this sector. The rising number of tourists worldwide is based on many factors, including the current structural transformation from industry to services and an increasing middle class with resulting changes in consumer demand favoring Travel and Tourism [Global Talent Trends…, 2015, p. 8].
Specifically, the transformation of the Polish economy has strongly influenced the supply of tourism services and led to profound changes in many tourism sectors [Golembiński, 2013, p. 22, 23]. With the growth of tourism in Poland, demand for qualified staff has been rising [Golembiński, 2013, p. 26]. Young people are however traditionally perceived as a primary source of new recruits [Fraser, 2003]. Since TH attracts more younger than average workers, replacement issues, which are often posed by an aging workforce, should be diminished; however, workforce dominated by females, high staff turnover and leakage of talents to other sectors are common [Global Talent Trends ..., 2015, p. 19, 17]. Moreover, the nature of the work in this industry and job characteristics pose a negative image that can be an obstacle to recruitment, reducing the sector’s attractiveness for the younger workers. Given declining demographic trends [Fraser 2003, p. 99], young people may have greater employment choices in other sectors.

Research conducted for the WTTC by Oxford Economics shows a serious shortage of qualified people to meet anticipated TH growth over the next ten years [14 million jobs at risk..., 2015]. Industry therefore faces a 14 million job shortfall that could decrease this sector’s potential contribution to the world economy by $610 billion [14 million jobs at risk..., 2015; Global Talent Trends ..., 2015, p. 7].

Both Poland and Spain are forecasted to have a talent deficit over the next decade; for Spain (–0.7), ranking it 23rd of 46 countries included in the analysis that face similar problem; for Poland (–2.7), which places it at the bottom of the list [Global Talent Trends..., 2015, p. 31]. Indeed, Poland is projected to have one of the most acute TH labor deficits (demand grows more than 1 percentage point faster than the supply growth) [Global Talent Trends ..., 2015, p. 29].

This deficit is also revealed by analyzing TH talent demand-supply balance projections in the context of education attainment levels. At the college/university level, Spain and Poland are forecasted to have deficits of (–0.7) and (–3.5), respectively [Global Talent Trends..., 2015, p. 32, 33]. According to feedback from WTTC member companies, these projections may be too pessimistic as applied to Poland [Global Talent Trends..., 2015, p. 34, 35], because “The Travel Tourism market [in Poland] is rather stable and compared to the existing number of schools and faculties related to this area, there is even a slight surplus of potential talents” [Global Talent Trends..., 2015, p. 36].

When assessed against characteristics enabling the development and growth of talent in travel and tourism, referred to as “the enabling environment”, Poland and Spain ranked 41 and 33 out of 46 countries analyzed and appointed as important in this process. Overall z-scores for the enabling environment are also below average (–0.28 and –0.15 respectively for Poland and Spain) [Global Talent Trends..., 2015, p. 40]. Poland’s low rank has been mostly attributed to problems related to openness, prioritization of the travel and tourism sector and demographics. In Spain, travel and tourism weaknesses stemmed primarily from recruitment competition, as well as low training and industry attractiveness [Global Talent Trends..., 2015, p. 40].
These results may concern young and qualified potential employees. To attract and retain talents in the tourism and hospitality industry, career expectations of graduates need to be better understood.

As cited by Rodríguez-Antón et al. [2013, p. 27], Spain is currently implementing a Tourism Plan 2020 along with the Spanish Tourism Plan for Horizon Year 2020, which was adopted by the Council of Ministers on 8 November 2007. Under this strategic plan tourist authorities and firms define people as “the Spanish tourist industry’s primary asset” and seek to make tourism a key source of employment and social welfare [Rodríguez-Antón et al., 2013, p. 27]. In this approach “people are bound to become one of the key pillars for tourism model sustainability and a source of Spain’s differentiation as a tourist destination” [Rodríguez-Antón et al., 2013, p. 27].

In the case of Poland, development of competencies and qualifications of TH employees is considered a priority in the governmental document “Tourism Development Program until 2020,” adopted by the Council of Ministers on 18 August 2015 [Program Rozwoju Turystyki do 2020 roku, 2015, p. 36]. The importance of human resources is also emphasized in Poland’s tourism sector marketing strategy for the years 2012–2020 [Marketingowa Strategia Polski…, 2011, p. 56].

The sustainable development of tourism industry has become an engine of the economic growth and social development. However, its rapid growth also raises a question about the quantity and quality of the workforce which may be hampered if the projected talent deficits occur. The current problem of hiring and retaining young qualified employees may further worsen if the industry fails to meet expectations of the youth.

Tourism and Hospitality Industry in the Context of Generation Y Characteristics

The specific characteristics of the TH industry (e.g., low-paid, low-skilled jobs, a negative image, poor management, long unsociable working hours, irregular/inflexible work schedules, high staff turnover, etc.) [Jiang, Tribe, 2009, p. 5; Richardson, Butler, 2012, p. 262, Karatepe, Kilic, 2007, p. 239] and certain Millennial characteristics (e.g., the value of freedom, work-life balance, etc.) [Chen, Choi, 2008, p. 600; Gursoy et al., 2008, p. 453; Park, Gursoy, 2012, pp. 1196–1197] may create significant challenges for human resources management in this industry. Those challenges may be ameliorated by Generation Y, which apparently has different work values and job expectations [Kong et al., 2015, p. 150; Lub et al., 2012, p. 566; Richardson, Thomas, 2012, p. 11]. In any event, understanding and meeting workers’ career expectations is an important step in recruiting, retaining and motivating young employees [Kong et al., 2015, p. 148].
Millennials (1981-2000) born of Boomer parents and early X-ers [Gursoy et al., 2008, p. 452] are also known as Generation Y (or GenMe) [Park, Gursoy, 2012, p. 1196]. This technologically fluent generation grew up around virtual forms of communications [Lolli, 2013a, p. 357; Lolli 2013b, p. 295], tends to assimilate information quickly and purports to be good at multitasking [Gursoy et al., 2008, p. 453].

Generation Y employees tend to be ambitious and career-oriented [Kong et al., 2015, p. 148]. Dogan Gursoy et al. [2008] examined generational differences and similarities among hospitality employees and managers and indicated that Millennials value professional development; they desire to improve their skills and knowledge [Gursoy et al., 2008, p. 453, 456]. Eddy S.W. Ng et al. [2010] investigated the career expectations and priorities of the “millennial” generation, showing that Millennials have high career expectations – they expect rapid promotions and pay increases [Ng et al., 2010, p. 290]. Those authors indicated that more than two-thirds of the respondents (68.5%) expect to be promoted within the first 18 months in their first job [Ng et al., 2010, p. 285]. Similarly, in a study by Andrew K. Jenkins [2001, p. 20], focusing on student expectations and perceptions about the international hospitality industry, he found that students expected to be general/corporate manager ten years after graduating. Paul Barron et al’s study [2007] showed that in considering a future career in the hospitality industry, students also expected rapid linear promotion along with the need to frequently change jobs [p. 126].

Millenials are comfortable with change [Lub et al., 2012, p. 556]. They change jobs to experience new challenges [Barron et al., 2007, p. 127], as “they like working on things that really matter” [Gursoy et al., 2008, p. 456]. They have a low tolerance for less challenging work and perform rather poorly in work which is not stimulating [Ng et al., 2010, p. 283]. In a study comprising 20 hotels from a four-star hotel chain in the Netherlands, Xander Lub et al. [2012] show that the younger generation perceive stimulating jobs as significantly more important than do baby boomers [p. 563]. Jeongdoo Park and Dogan Gursoy [2012] found that Millennials who lose a sense of significance, enthusiasm and challenge tend to leave more often, as compared to the baby boomer generation employees [p. 1200].

It is said that although they are ambitious [Gursoy et al., 2008, p. 453], Generation Y employees are more strongly concerned with the work-life balance [Richardson, Butler, p. 273]. Millennials seek rapid promotion and development, along with a meaningful and satisfying life outside their work [Ng et al., 2010, p. 281]. They want to enjoy work but do not want it to dominate their entire lives [Barron et al., 2007, p. 121]. This translates into an unwillingness to work during weekends, holidays, late nights and early mornings; they desire flexibility and the freedom to have a life outside their workplace [Richardson, Butler, 2012, p. 273; Richardson, Thomas, 2012, p. 11]. Their priorities are friends and family [Gursoy et al., 2008, p. 453]. In a study by Simon, Wong and Liu [2009] conducted among TH management undergraduate students in China, students indicated the work values that are the most important for them including achievement, associates and their
way of life which importance may reflect students’ emphasis on maintaining control over their lives with less interference from the work [p. 347].

Millennials also value teamwork, collaboration [Gursoy et al., 2008, p. 453], enjoyable work, and a pleasant working environment [Kong et al., 2015, p. 163]. They would like to be recognized and respected in their work [Gursoy et al., 2008, p. 453].

Empirical studies indicate that Generation Y present a lower commitment to their organization [Lub et al., 2012, p. 566]. If Millennials are not rewarded at one company, they are likely to move to another offering greater opportunities [Ng et al., 2010, p. 282]; “if they are not happy, they are likely to be ‘out of there’” [Gursoy et al., 2008, p. 453]. This lack of long-term commitment to the organization can create a significant challenge, especially for the hospitality industry, which already experiences high employee turnover rates [Choi et al., 2013, p. 412].

Most empirical studies also find that Millennials are ambitious and impatient in nature; they “want it all” and “want it now” [Ng et al., 2010, p. 288, 282]. Confidence, passion, self-reliance and independence are among the characteristics they identify when talking about their future careers [Barron et al., 2007, p. 127].

Against this backdrop, it would appear that different TH industry-specific characteristics impact skilled employee shortages [Richardson, Butler, 2012, p. 262]. Young workers either do not enter the industry after graduation or perceive tourism jobs as short-term situations [Jiang, Tribe, 2009, p. 16]. The TH sector’s unfavorable job characteristics and poor working conditions are unappealing to students. Prior studies of tourism and (or) hospitality students suggest the following factors may contribute to those negative perceptions:
- stressful and exhausting jobs,
- lack of family life,
- long and unsocial working hours, which for some are not conducive to living a normal life,
- repetitive tasks,
- seasonality and unstable jobs which may affect employees’ lifestyle and contribute to a lack of job security in tourism,
- poor salary and benefits, perceived by many as inadequate to maintain satisfactory living standard,

To continue to grow and develop, the TH industry needs to provide potential employees with an environment that provides an enjoyable, secure job, pleasant working environment, good promotion prospects, high earnings throughout the career, etc. As previously indicated, recent studies show that undergraduate students do not believe that a TH career meets these characteristics [Richardson, 2009; Richardson, Butler, 2012;
Richardson, Thomas, 2012]. This finding shows that there is an important challenge in front of academics and the business sector. The studies of student needs and TH perceptions are, however, limited [Roney, Öztin, 2007, p. 5], and future research is required to better understand their expectations and aspirations taking into account local and international approach [Jenkins, 2001, p. 20].

**Methodology**

To empirically determine whether the TH industry can meet Polish and Spanish students’ expectations, the author selected two higher education institutions located in those countries. The selection criteria involved availability of tourism educational programs and location at a coastal tourist destination. This led us to focus on the Pomeranian Voivodeship in Poland and the Galicia Region in Spain. The study was limited to surveying respondents with a similar educational profile. Because of a case study nature of the study, the conclusions may concern only the investigated students.

To assess the importance of motivating factors and the extent to which students believe that the TH industry will offer them, Kovach's job-related motivators were applied [Kovach, 1987]. These job-related motivators identify ten job-related factors perceived as important for motivating employees [Kovach, 1987; Wong, Ladkin, 2008]. It is worth noting that Kovach's job-related motivators have been adopted in previous studies investigating hospitality industry employees, in which the younger generation was also represented in the general group of respondents’ pool [Wong, Ladkin 2008, p. 433]. In line with previous studies [Richardson, Thomas, 2012; Richardson, 2010], respondents were asked to answer questions on a three-point scale: (1) “very important”, (2) “fairly important”, and (3) “not important” to indicate the relative importance of each factors and, again on a three-point scale, to choose: (1) “definitely offers”; (2) “somewhat offers”; and (3) “does not offer” to state the extent to which they believe the TH industry may provide a specific factor.

Data were collected using a paper-based, self-administrated questionnaire distributed to a captive audience (in a classroom), in the controlled environment of formal class time and under the researcher’s supervision. It is worth noting that a self-administrated questionnaire is perceived as one of the most popular methods of social research. One of the key advantages involved is that there is no pressure to produce an immediate reply (as compared to an interview), limited likelihood of embarrassment when sensitive questions are asked and a relatively low cost to administer [Gray et al., 2007, p. 127]. The survey instrument was originally prepared in English and then translated into Polish through the back-translation method to ensure translation quality and guarantee equivalence.
Based on the information received from HEIs, a total of 225 questionnaires were distributed to two higher education institutions that participated in the study. Respondents were asked to answer in Polish (in Poland) or English (in Spain) during lecture time, which included all students in class present during the survey execution. Students were informed about their voluntary and anonymous participation in the research. The research was conducted between April and June 2015. The controlled nature of the questionnaire resulted in a total of 168 usable questionnaires, yielding a response rate of 74.67%.

The statistical analysis test for significant differences between study responses included the paired sample t-test and an independent-samples t-tests. The paired t-test was used to compare the means in the case of two groups that are correlated (e.g. when analyzing the differences between the importance of job-related motivators and the extent to which students in each group believe that TH will offer these characteristics; see table 3). By contrast, the independent t-test was used to compare the means between two unrelated groups in terms of the same, dependent variable (e.g., when analyzing differences between the perceptions of students from both groups, Poland and Spain; see table 1 and 2).

Results

Characteristics of the respondents

Female respondents accounted for the majority (83.3%) of all surveyed students; 63.1% of respondents were aged 18–21 years, whereas 36.9% were between 22–25 years old. As indicated above, this age distribution permits an assumption that all study participants fit Generation Y criteria. Among respondents, 58.9% were from a Polish university; 41.1% studied in Spain. 70.2% of participants declared that tourism and (or) hospitality was the first choice of their study; 67.7% of the respondents had no friends/relatives working in the industry. Most students (60.7%) had work experience in the industry (59.4% and 61.6% respectively, for Spanish and Polish students). 67.3% of all study participants confirmed their intention of working in the TH industry after graduation (78.3% of Spanish students; 59.6% of Polish respondents). The remaining ones (32.7%) did not want to do so or were undecided about their careers after graduation.

Importance of job related motivators and student perceptions when choosing a career in tourism and hospitality industry (TH)

The top priorities for Polish and Spanish students as motivating factors in choosing a career (Table 1), are: interesting work, advancement/development, and good working conditions. Polish respondents were also focused on good salary and employer loyalty to employees.
When comparing the importance of motivating factors, there are differences between Polish and Spanish students. Generally, job-related motivators were significantly more important to Polish students than to their Spanish peers (mean difference: +0.20, t=4.577, p≤0.001). Work appreciation, interesting work, good wages, loyalty to employees and job security were also found to be significantly more important (p≤0.05) for Polish respondents than for Spanish respondents. The two latter ones – loyalty to employees and job security – also generated the biggest differences between the importance means (respectively: +0.58; +35) when comparing Polish and Spanish perspectives.

TABLE 1. Importance of job related motivators when choosing a career. Differences between Polish and Spanish students’ perspectives

<table>
<thead>
<tr>
<th>Job-related motivator</th>
<th>Poland Importance Mean</th>
<th>Spain Importance Mean</th>
<th>Mean differences</th>
<th>t^b</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full appreciation of work done</td>
<td>1.26/(0.465)</td>
<td>1.56/(0.606)</td>
<td>+0.30</td>
<td>3.494</td>
<td>0.001***</td>
</tr>
<tr>
<td>Feeling of being involved</td>
<td>1.35/(0.521)</td>
<td>1.42/(0.628)</td>
<td>+0.07</td>
<td>0.750</td>
<td>0.454</td>
</tr>
<tr>
<td>Sympathetic help with personal problems</td>
<td>1.82/(0.675)</td>
<td>1.75/(0.628)</td>
<td>−0.07</td>
<td>−0.627</td>
<td>0.531</td>
</tr>
<tr>
<td>Interesting work</td>
<td>1.11/(0.347)</td>
<td>1.30/(0.577)</td>
<td>+0.19</td>
<td>2.488</td>
<td>0.014*</td>
</tr>
<tr>
<td>Opportunities for advancement and development</td>
<td>1.17/(0.405)</td>
<td>1.32/(0.528)</td>
<td>+0.15</td>
<td>1.948</td>
<td>0.054</td>
</tr>
<tr>
<td>Loyalty to employees</td>
<td>1.17/(0.405)</td>
<td>1.75/(0.604)</td>
<td>+0.58</td>
<td>6.982</td>
<td>0.000***</td>
</tr>
<tr>
<td>Good working conditions</td>
<td>1.17/(0.405)</td>
<td>1.26/(0.560)</td>
<td>+0.09</td>
<td>1.132</td>
<td>0.260</td>
</tr>
<tr>
<td>Tactful disciplining</td>
<td>1.82/(0.560)</td>
<td>1.93/(0.602)</td>
<td>+0.11</td>
<td>1.207</td>
<td>0.229</td>
</tr>
<tr>
<td>Job security</td>
<td>1.26/(0.507)</td>
<td>1.61/(0.669)</td>
<td>+0.35</td>
<td>3.632</td>
<td>0.000***</td>
</tr>
<tr>
<td>Good wages</td>
<td>1.17/(0.405)</td>
<td>1.43/(0.630)</td>
<td>+0.26</td>
<td>3.058</td>
<td>0.003**</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.33/(0.236)</td>
<td>1.53/(0.312)</td>
<td>+0.20</td>
<td>4.577</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

^a values in parentheses are standard deviations; ^b independent T-Test
* p≤0.05, **p≤0.01, *** p≤0.001 importance mean value: 1=very important, 2=fairly important, 3=not important
Source: own elaboration.

Comparing expectations (Table 2), Spanish students generally were more likely to believe that the industry would satisfy these important characteristics (mean difference: −0.03, but not statistically significant p>0.05). At an individual level, only 1 factor out of 10 was found to be significantly different (p≤0.05), with Polish students, who were far more likely to believe that the TH industry would offer good working conditions than their Spanish peers. Although the remaining differences are not statistically significant, Spanish students believed that TH industry was more likely to deliver appreciation, sympathetic help, interesting work, advancement/development, tactful disciplining and job security.
TABLE 2. Extent to which students believe a career in tourism and hospitality will offer job-related motivators. Differences between Polish and Spanish students’ perspectives

<table>
<thead>
<tr>
<th>Job-related motivator</th>
<th>Poland TH offers Mean</th>
<th>Spain TH offers Mean</th>
<th>Mean differences</th>
<th>t (^b)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full appreciation of work done</td>
<td>1.99/(0.364)</td>
<td>1.88/(0.471)</td>
<td>-0.11</td>
<td>-1.569</td>
<td>0.119</td>
</tr>
<tr>
<td>Feeling of being involved</td>
<td>1.72/(0.531)</td>
<td>1.75/(0.553)</td>
<td>+0.03</td>
<td>0.311</td>
<td>0.756</td>
</tr>
<tr>
<td>Sympathetic help with personal problems</td>
<td>2.18/(0.560)</td>
<td>2.03/(0.618)</td>
<td>-0.15</td>
<td>-1.668</td>
<td>0.097</td>
</tr>
<tr>
<td>Interesting work</td>
<td>1.52/(0.577)</td>
<td>1.49/(0.585)</td>
<td>-0.03</td>
<td>-0.357</td>
<td>0.722</td>
</tr>
<tr>
<td>Opportunities for advancement and development</td>
<td>1.83/(0.590)</td>
<td>1.71/(0.666)</td>
<td>-0.12</td>
<td>-1.184</td>
<td>0.238</td>
</tr>
<tr>
<td>Loyalty to employees</td>
<td>1.93/(0.539)</td>
<td>1.97/(0.514)</td>
<td>+0.04</td>
<td>0.503</td>
<td>0.616</td>
</tr>
<tr>
<td>Good working conditions</td>
<td>1.87/(0.395)</td>
<td>2.04/(0.554)</td>
<td>+0.17</td>
<td>2.388</td>
<td>0.018*</td>
</tr>
<tr>
<td>Tactful disciplining</td>
<td>1.89/(0.492)</td>
<td>1.74/(0.610)</td>
<td>-0.15</td>
<td>-1.691</td>
<td>0.093</td>
</tr>
<tr>
<td>Job security</td>
<td>1.89/(0.551)</td>
<td>1.88/(0.697)</td>
<td>-0.01</td>
<td>-0.048</td>
<td>0.962</td>
</tr>
<tr>
<td>Good wages</td>
<td>2.14/(0.553)</td>
<td>2.19/(0.550)</td>
<td>+0.05</td>
<td>0.543</td>
<td>0.588</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.90/(0.293)</td>
<td>1.87/(0.309)</td>
<td>-0.03</td>
<td>-0.583</td>
<td>0.561</td>
</tr>
</tbody>
</table>

\(^a\) values in parentheses are standard deviations; \(^b\) independent T-Test

* \(p \leq 0.05 \)

TH offers mean value: 1=definitely offers, 2=somewhat offers, 3=does not offer

Source: own elaboration.

Table 3 shows that, both groups of students do not believe a TH industry career will offer them job-related characteristics which they consider important (the total gap is –0.57 for Polish and –0.33 for Spanish students). A paired sample T-test in both groups illustrates significant differences. Moreover, in each of the factors (with an exception of tactful disciplining in Spanish and Polish group) importance also has a significantly lower mean than the extent to which students believe a career in TH offers that motivator.

It is also worth noting that there is a significantly greater discrepancy among Polish respondents between their requirements and the industry perception than among Spanish respondents (the gap difference is statistically significant; \(t=3.815; \ p \leq 0.001\)). This discrepancy is also observed at the individual level. Thus, Polish respondents seem less likely to believe that a TH industry career will meet their important expectations, especially in such aspects as loyalty and appreciation for work done. Only 4 gaps out of 10 were not significantly different when comparing two groups tested.
TABLE 3. Differences (gaps) between importance of job related motivators when choosing a career and extent to which students believe that tourism and hospitality will offer these. Polish and Spanish perspective

<table>
<thead>
<tr>
<th>Job-related motivator</th>
<th>Poland</th>
<th>Spain</th>
<th>t&lt;sup&gt;b&lt;/sup&gt;/result&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Gap</th>
<th>t&lt;sup&gt;b&lt;/sup&gt;/result&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Gap</th>
<th>t&lt;sup&gt;b&lt;/sup&gt;/result&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full appreciation of work done</td>
<td>-0.73</td>
<td>-12.352</td>
<td>ss***</td>
<td>-0.32</td>
<td>-3.498</td>
<td>ss***</td>
<td>3.764/ ss***</td>
</tr>
<tr>
<td>Feeling of being involved</td>
<td>-0.37</td>
<td>-5.477</td>
<td>ss***</td>
<td>-0.33</td>
<td>-3.469</td>
<td>ss***</td>
<td>0.353/ ns</td>
</tr>
<tr>
<td>Sympathetic help with personal problems</td>
<td>-0.36</td>
<td>-5.122</td>
<td>ss***</td>
<td>-0.27</td>
<td>-3.154</td>
<td>ss**</td>
<td>0.788/ ns</td>
</tr>
<tr>
<td>Interesting work</td>
<td>-0.41</td>
<td>-6.797</td>
<td>ss***</td>
<td>-0.19</td>
<td>-2.605</td>
<td>ss*</td>
<td>2.383/ ss*</td>
</tr>
<tr>
<td>Opportunities for advancement and development</td>
<td>-0.66</td>
<td>-9.116</td>
<td>ss***</td>
<td>-0.39</td>
<td>-3.851</td>
<td>ss***</td>
<td>2.193/ ss*</td>
</tr>
<tr>
<td>Loyalty to employees</td>
<td>-0.76</td>
<td>-10.980</td>
<td>ss***</td>
<td>-0.22</td>
<td>-2.491</td>
<td>ss*</td>
<td>4.903/ ss***</td>
</tr>
<tr>
<td>Good working conditions</td>
<td>-0.70</td>
<td>-13.234</td>
<td>ss***</td>
<td>-0.78</td>
<td>-7.926</td>
<td>ss***</td>
<td>-0.765/ ns</td>
</tr>
<tr>
<td>Tactful disciplining</td>
<td>-0.07</td>
<td>-0.980</td>
<td>ns</td>
<td>+0.19</td>
<td>2.335</td>
<td>ss*</td>
<td>2.364/ ss*</td>
</tr>
<tr>
<td>Job security</td>
<td>-0.63</td>
<td>-8.305</td>
<td>ss***</td>
<td>-0.27</td>
<td>-2.572</td>
<td>ss*</td>
<td>2.762/ ss**</td>
</tr>
<tr>
<td>Good wages</td>
<td>-0.97</td>
<td>-13.387</td>
<td>ss***</td>
<td>-0.75</td>
<td>-7.242</td>
<td>ss***</td>
<td>1.704/ ns</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-0.57</td>
<td>-15.230</td>
<td>ss***</td>
<td>-0.33</td>
<td>-6.811</td>
<td>ss***</td>
<td>3.815/ ss***</td>
</tr>
</tbody>
</table>

<sup>a</sup> paired T-Test; <sup>b</sup> independent T-Test; <sup>c</sup> result statistically significant (ss), result not statistically significant (ns) * p≤0.05, **p≤0.01, *** p≤0.001
<sup>d</sup> Gap – differences between gaps of Polish and Spanish students

Source: own elaboration.

To better understand the importance of these factors and assess how students perceive whether those factors will be met by TH, a perceptual map is used to visualize the potential gaps [Atilgan et al., 2003, p. 420]. In it, data were presented on a single grid (separate for both groups – Polish and Spanish students), where each factor was plotted according to its importance for students, and the extent to which students believed that it would be met by TH. Dividing lines reflect the overall mean of importance and TH offers. The matrix shows factors located within four properly defined areas related to perceived importance and performance [Faché, 2000, p. 363; Yang 2003, p. 313]. In this study the perceptual maps are modified and interpreted. The top priority are factors located in the area of “concentrate here”; they are of greatest importance for students and are simultaneously perceived by them as being extremely underrepresented by the industry. Thus, to improve the industry perception by students, TH managers should focus primarily on those factors. However, although the area of “concentrate here” and “keep up the good work” are a focus of this study, all factors located in each of the four quadrants should be carefully considered by industry managers who aspire to attract a well-qualified workforce.
For Spanish students, the perceptual map (Figure 1) suggests that (F7) good working conditions and (F10) good pay merit industry attention. These factors are above the overall mean for importance and below the overall mean for TH perception. Factors located in the area of “keep up good work” are (F2) being involved, (F4) interesting work and (F5) advancement and development. These are very important to student career choice and, although students believe they are more likely to be offered by the industry, these factors also need industry attention to reduce existing gaps between expectations and reality.

For Polish students, the perceptual map (Figure 2) suggests that (F1) appreciation of work done, (F6) loyalty to employees, and (F10) good wages are critical and require industry improvement. Factors located in the area of “good work” – (F4) interesting work, (F5) advancement and development, (F7) good working conditions, and (F9) job security – while positive, again require continuing efforts to reduce existing gaps between expectations and reality.

**Differences between students’ perception of a career in the tourism and hospitality industry in the context of their working plans and working experience**

Regarding perceptions, Spanish students who declared their intention to work in TH were more likely to believe that industry would provide them with interesting work than were those who had either not yet decided, or did not want to work in TH after graduation.
The difference in perception of these students (with and without the intention to work in TH) was statistically significant ($t=-2.955; p=0.004$). In the case of the remaining factors, statistically significant differences were not found ($p>0.05$).

FIGURE 2. Perceptual map of Polish students

![Perceptual map of Polish students]

(F1) full appreciation of work done; (F2) feeling of being involved; (F3) sympathetic help with personal problems; (F4) interesting work; (F5) advancement and development; (F6) loyalty to employees; (F7) good working conditions; (F8) tactful disciplining; (F9) job security; (F10) good wages

The placement of the dividing lines – overall mean of TH offers and importance (1.90; 1.33)

Source: own elaboration.

For Polish respondents, full appreciation of work done ($t = -2.546; p = 0.012$) demonstrated statistical significance. Those who intended to work in TH were more likely to believe that TH would offer this motivator than those who did not feel a strong commitment to the industry.

Work experience also mattered. In the case of Spanish students significant differences were observed in the following factors:

- (F1) full appreciation of work done ($t = -2.474; p = 0.016$)
- (F4) interesting work ($t = -2.117; p = 0.04$)
- (F6) loyalty to employees ($t = 2.577; p = 0.012$)
- (F7) good working conditions ($t = 2.897; p = 0.005$)
- (F9) job security ($t = 2.867; p = 0.006$)
- (F10) good pay ($t = 2.417; p = 0.019$)
Students with work experience were more likely to believe that TH would offer full appreciation of work and interesting work. By contrast, good working conditions, job security, loyalty and good salary were perceived much less favorably.

In the case of Polish students with work experience, differences were observed in the following factors:

- (F5) advancement/development ($t = 2.319; p = 0.022$) and
- (F7) good working conditions ($t = 2.047; p = 0.045$).

In both groups, students with work experience perceived the industry less favorably in this context.

Finally, the general gap between students’ expectation and perception was analyzed in the context of their work experience. Here, students with working experience in TH perceived significantly greater discrepancies between factor importance (in general) and expectation in TH, when compared to students with no work experience in the industry. These statistically significant differences were observed in both groups, Spanish students ($t = -2.140; p = 0.036$), and Polish students ($t = -2.081; p = 0.04$). Specifically, among Spanish students at the level of individual motivators statistically significant differences were found in the following factors:

- (F7) good working conditions ($t = -2.795; p = 0.007$) and
- (F10) good pay ($t = -3.033; p = 0.003$).

For Polish respondents, a statistically significant difference was observed in (F5) opportunities for advancement and development ($t = -2.660; p = 0.009$).

Although, due to the nature of the study, the results cannot be generalized, they provide a basis for discussion and serve as a starting point for future studies.

**Discussion**

The results of this study indicate that when choosing a career students generally value mostly: interesting/challenging work, opportunities for promotion and development and good working conditions. This finding is supported by previous studies [Gursoy et al., 2008; Jenkins, 2001; Ng et al., 2010] and confirms that Millennials value professional development, want career promotion and interesting/challenging work, and are “impatient to succeed” [Ng et al., 2010, p. 282].

When analyzing the importance of factors and significant differences, 5 out of 10 factors were found to be more important for Polish than for Spanish students. However, when comparing the extent to which the respondents believed TH offers important characteristics, a statistically significant difference was found for only 1 of 10 factors (good working conditions). Thus, while multiple significant differences in importance factors are found between groups, the perceptions of TH by both groups is not so significantly diverse.
Based on this study the author finds that students of both groups had a similar perspective on what the industry offers, whereas they were more diverse in their career importance factors. This is in contrast to Scott Richardson’s [2010] study, which compared Australian and international students, and found much more significant differences in factor perception comparison than in factor importance confronting [Richardson, 2010, p. 6, 7].

Both Polish and Spanish students generally did not believe a career in the TH industry offers them the motivating factors they found important when choosing a career. In this context the results of this study confirm those by Richardson [2009, p. 386] among Australian students, Richardson and Thomas [2012, p. 7] among USA students; and Richardson and Butler [2012, p. 271] among Malaysian students, who confirmed the establishments. Perceptual maps for both student groups reveal that the areas which need improvement in order to enhance the perceptions of potential workers are:

– for Spanish students: good working conditions and good salary
– for Polish students: appreciation of work done, loyalty to employees, and good salary.

These results seem to confirm that Millennials do not believe that they are respected and appreciated because they are young, thus they require more constructive feedback and praise [Gursoy, 2008, p. 453; 454]. The emphasis on financial rewards may also be explained by Millennials’ need for feedback in the form of salary (salary being proportional to their level of performance and appreciation) [Ng et al., 2010, p. 282]).

One positive findings is that students in both groups expressed an intention to work in TH, in line with several previous studies [Richardson, Thomas, 2012, p. 10]. Those students also have a much more favorable perception of the industry, especially concerning interesting work (Spanish respondents) and work appreciation (Polish participants). Roney and Öztin [2007, p. 11] confirm the finding that those interested in working in tourism after graduation view the industry much more favorably than those who were not interested or undecided. Willingness to work in tourism contributed positively to the overall image of the industry [Roney, Öztin, 2007, p. 12], which is partially observed in this study.

However, students with work experience seem to less likely believe that TH will meet their expectations, especially as to working conditions and payment (Spanish respondents) and opportunities for advancement and development (Polish participants).

These findings are particularly relevant in view of the Polish and Spanish labor markets. In 2014, Spain had one of the highest overall unemployment rates in Europe (24.5%), and the highest youth unemployment rate (53.2%) [Unemployment Statistics, 2014]. The economic crisis severely affected young workers [Unemployment Statistics, 2014], and many of them, often talented ones, decided to emigrate and search for work [Hiszpania: bezrobocie wśród młodzieży…, 2015]. Thus, to attract and keep young and talented employees, work improvements are critical, particularly in working conditions and wages.

In case of Poland, the 2014 youth unemployment rate was 23.9% [Unemployment Statistics, 2014] and falling. The observed decrease in unemployment likely had several reasons, including new investments and government support programs [Młodzi Polacy…,
2015]. However, many graduates who studied tourism are looking for work, or working, outside their educational fields [Losy absolwentów..., 2014, p. 116, 137]. Thus, when recruiting young workers, especially in TH sector, an improvement in the employer image is recommended both in the context of extrinsic motivators (e.g. good wages) and intrinsic ones, e.g., loyalty to employees and work appreciation.

Finally, the results of this study confirm that nationality may be significant in respondents’ career perceptions of the TH industry. Thus, given the international nature of the industry, managers need to carefully consider implementing tailor-made management practices to successfully attract and retain employees from different nationalities and cultural backgrounds, who may vary in their career expectations.

Educational and Managerial Implications

A clear understanding of motivating factors that students consider when selecting a career in TH is critical for both educators and industry to make TH industry attractive for young workers. This study shows that Polish and Spanish students do not believe that TH will meet their career expectations. Thus, based on the literature [Global Talent Trends…, 2015, p. 22; Kusluvan, Kusluvan, 2000, p. 262; Richardson, 2009, p. 387; Richardson, Butler, 2012, p. 273; Richardson, Thomas, 2012, p. 12; Teng, 2008, p. 84; Wong, Liu, 2010, pp. 98–99] and findings from this study, the author provides several recommendations to address this perception.

First. Provide more opportunities for students to experience real, work-related problems facing today’s TH. Dual training based on cooperation between educators and the business is recommended. Study tours, field trips, company visits, industry workshops and live case studies should also be considered.

Second. Internships (both domestic and abroad) and other forms of work experience should frequently be offered. Partnerships between industry and educators will provide young people with quality industry experiences and realistic expectations of TH that may influence students’ future career choices [Hsu 2013, p. 182; Chen, Shen, 2012, p. 30].

Third. Learning seminars and career presentations by TH human resources managers could help to resolve students’ career concerns and inform them about the range of TH careers that is available. Inviting alumni with industry experience is also recommended to provide students with real examples of successful TH careers.

Fourth. In addition to well-developed career support programs, individual career counsellors should also be provided to assist students in making future career decision.

Fifth. To cope with employees’ expectations, new strategies and management practices should be formulated and adopted by the TH industry which recognize that young people are looking for interesting, challenging work that is meaningful and gives them a sense of satisfaction. Future employees also place a great value on good working conditions,
competitive salaries and are focused on continuous learning and development opportunities. It is worth noting that despite increasing number of large multinational tour operators, airlines and hotels, most TH enterprises are small and medium-sized organizations [Kusluvan, 2003, p. 10], which operate locally employing several people. As a consequence, there is no opportunity for rapid career promotion, which is strongly valued by the youth, and therefore may reduce their retention.

Given the financial limitations faced by some TH firms the author focuses on two recommendations here: first, a career path is not always linear in the hospitality industry, as underlined by John R. Walker [2014] “we don’t always use straight-line career ladders” [p. 37], which means that before reaching high managerial position, previous experience in many hospitality areas is recommended. Second, to gain experience and simultaneously answer the development needs of young people, the industry should employ not only vertical but also horizontal mobility for its employees by providing them with challenging work assignments and task variety. This practice includes greater job responsibility, autonomy and professional training, which may improve workers’ opportunity to expand their knowledge, increase skills and help the overall image of work in the TH industry. Additionally, continuous performance feedback gives young people the opportunity to gather experience, that can be used in the future, as companies invest in their growth and development.

Based on interviews with educational representatives, it is worth noting that several of these recommendations (e.g. workshops/seminars with future employees, talks by former students about their experience, informative sessions or personal tutoring) have already been implemented, particularly in the context of the Career Support Program at the University in Spain.

Summing up, a greater balance between theory and practice is needed, including a switch from a traditional to a more innovative, interactive teaching mode [Global Talent Trends..., 2015, p. 17] based on collaboration with business.

**Study Limitations and Directions for Future Research**

This study is a subject to at least two limitations: 

**One.** As David Airey and Athanassios Frontistis [1997, p. 157] found there are differences between views about employment in the tourism sector perceived as a whole and views on individual jobs in tourism, and the latter tend to be more accurate than those on the entire tourism sector. Thus, it is more realistic to ask about individual jobs in the TH industry, which is a recommendation for future research.

**Two.** The study results cannot be generalized as respondents came from only two institutions, which does not reflect the much larger world of higher education in both countries. Thus, future studies based on a larger sample are recommended.
We expect that future research may follow several paths. First, investigation of which students’ individual traits influence their career choices and their perception of the industry. Second, future studies should also consider the socio-demographic characteristics of students’ families and their potential impact on children’s career choices in TH, both in Poland and Spain. Such research is limited [Wong, Liu, 2010, p. 88]. Third, similar research should be conducted among students of other nationalities to compare the findings in the context of cultural differences and discuss potential discrepancies. Fourth, students’ expectations about their future professional lives should be considered by both educators and industry professionals.

The research findings should be also regularly updated to be in line with changes in young people’s preferences and expectations about their future careers in the globally changing tourism and hospitality industry.

Summary

This study attempted to bridge the knowledge gap about students’ (generation Y) career aspirations and perceptions of TH. It was done by presenting job related motivators which Polish and Spanish tourism and hospitality students found important when considering their future careers, and investigating the extent to which they believe TH meets their needs.

The main results of this study demonstrate that students believe all motivating factors they deem important are lacking in the TH industry. Some differences between students from Spain and Poland were also found. Thus, the TH industry and educators should consider using the findings of this study to enact strategies to minimize identified gaps and foster positive student attitudes towards a TH career. The study also identifies international differences in work perception, particularly helpful when employing a global labor force.

Clearly, the industry needs to improve its image and communicate career opportunities for young workers which meet their specific expectations to encourage TH graduates to enter the industry upon graduation.

All above stated can be concluded with the words of David Scowsill (President and CEO of the World Travel & Tourism Council): “We are a people industry – we depend on quality people to deliver a quality product – and we need the right policies, programmes and partnerships in place to ensure that the workforce of the future knows about the opportunities in our sector, and has the appropriate skills and knowledge to support future growth” [Global Talent Trends…, 2015, p. 7].
Notes

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References


The Perception of Job-related Motivators When Choosing a Career in the Tourism...


