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## FRANCHISING AS A WAY OF REDUCING MORAL HAZARD IN THE TOURISM MARKET

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The objective of this study was to determine the role of franchising in reducing information asymmetry, and moral hazard arising under this asymmetry between tourism service providers cooperating together. It was indicated that the nature of the tourism market assesses the implementation of franchising as a good solution in this case, and it is expected that the popularity of using franchising as a business model in the tourism sector will increase. Based on the classical static bilateral principal-agent model, the advantages of using contracts that differentiate the remuneration of an agent according to the effort in order to limit the risk of business failure were presented. In the study, the practical implications for drafting franchise contracts in the tourism sector that arise from the implemented model were also proposed.

**Keywords:** franchising, information asymmetry, moral hazard, principal-agent model, tourism market

### 1. INTRODUCTION

One underlying assumption of mainstream economics was the thesis about reliability in the markets. According to the neo-classical economists, market forces are generally a very efficient tool for the allocation of resources, and the production factors are used with efficiency, which means used in an optimal way. However, the practice is different, and one of the major causes of the market mechanism's failure is the information asymmetry. Since the situations in which this phenomenon occurs are very common, economists have been particularly dedicated to this area of microeconomics since 1970. The culmination of their work was the 2001 Nobel Prize in Economic Sciences awarded to a group of three researchers, George Akerlof, Michael Spence, and Joseph Stiglitz, who have dealt with this issue.

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Information asymmetry and the moral hazard as its consequence, are common in the tourist market. These phenomena may concern both the relationships between producers of tourism services themselves, as well as the relationships between producers and consumers. Information asymmetry and moral hazard play an important role in the tourism market, mostly due to the specific nature of tourism demand. In this case particularly important are such characteristics as complexity, mobility and sensitivity. Tourism demand always occurs as a conglomerate of needs arising according to the tourist traffic. Its complexity stems not only from a wide variety of these needs, but also from sequentiality in their disclosures (see Weiermair, 1997). This results in the need for the existence and cooperation of many providers that form a comprehensive tourism product (of travel agencies, hotels, airlines, etc.). Thus, the offered product quality depends on the relationship between these entities, including the ability to deal with the information asymmetry, being very high in this case, which occurs between different service providers. The mobility of tourism demand arises from the tourists' need to move to places where the service of their interest is offered. Therefore, the main part of the tourist consumption is usually held away from the place of residence of tourists and implies the spatial dispersion of travel service providers. This results from the fact that within the existing sales network it is very difficult to monitor the individual undertakings, and is usually connected with high costs. Tourists use the facilities (e.g. hotels) located in markets distant from the sending destinations; it will also often result in the situation that customers purchase the service only once. Therefore, in particular tourist facilities that are part of the network with a recognized and customer-selected brand (i.e., international hotel system), occasionally moral hazard can occur to underestimate the quality of services in order to reduce costs. In the context of information asymmetry, an important feature of tourism demand is also the sensitivity to economic and random factors. A significant part of the tourism consumption is financed from the so-called discretionary fund, which is an amount of money that households have available for spending after all the necessities of living expenses are complete. In the case of recession and a reduction in the income of households (or even only the fear of such a reduction), the fund is limited in the first instance. In the case of random factors such as social and political conflicts, increased acts of terrorism, epidemics, and natural disasters, the tourism demand often undergoes a sudden decrease or even completely disappears. However, its return to the initial state becomes usually a long and difficult process, due to the tourists' fears of a recurrence of a random

factor. The sensitivity of tourism demand is also due to its seasonality, occurring in alternate periods of increased and decreased buyers' interest in the tourist offer, mainly caused by natural (seasons) and institutional (distribution of vacation time and holidays throughout the year) premise. These multidirectional and difficult to predict effects of various factors on the tourism demand can also contribute to the occurrence of moral hazard. This situation can occur when certain entities engaged in a conglomerate tourism group (of hotel system, tour operator) will justify obtaining worse financial results caused by too low commitment to work by, for example, random factors.

The presented aspects indicate that conducting business in the tourism industry is burdened with a substantial risk that is also caused by the unequal access to information among particular players in the market. In the case of cooperation between the tour operators, moral hazard can occur. As a consequence, tourism businesses, mainly hotel systems and tour operators, usually consider two alternative developmental paths: capital and non-capital, in order to maximize their service potential. The capital path involves starting independently a new hotel or a travel agency by a tourist corporation. In the case of selecting the non-capital path, the corporation extends its service potential by cooperating with other businesses, for example through: license agreement, operating agreement, strategic alliance, joint venture, or franchising.

The empirical studies carried out by such investigators as: Kundu and Contractor (1999), Martorell et al. (2012), or Rodriguez (2002), show that selecting the indirect investment path, including in particular the franchise agreements, is more and more common for the tourism market. In the context of the current unfavourable and uncertain global economy, including many national economies, the popularity of this business model is likely to increase.

Although the problem of information asymmetry and moral hazard associated with it was the subject of numerous prior scientific studies (e.g. Bolton & Dewatripont, 2005; Gayle & Miller, 2009; Lafontaine, 1992; Rayo, 2007; Sannikov, 2008), there is a gap in studies devoted to the use of franchising in order to reduce these phenomena in the tourist market. In the context of introductory remarks, the most important task of this article is to bridge this research gap. The aim of this study is to evaluate the suitability of franchising for reducing moral hazard that exists between the cooperating providers of tourism services. The paper also proposes practical solutions for franchise agreements, designated to reduce the risk of this phenomenon. The

analysis of the considered problem is based on the simplified principal-agent (franchisor-franchisee) model, which is used to explain the methods of optimization techniques to offset the agent at a level that ensures the success of each party of the business agreement. The model is extremely simplified; it applies only to the situation of one principal and one agent, and includes only two variants for the state of the agent's involvement. The carried out analysis is also static, thus it affects only one period, which makes it impossible to undertake the analysis of behaviours of both parties of the agreement in subsequent periods, for example in the case of risk implementation.

## **2. THE ESSENCE OF FRANCHISING IN THE TOURISM INDUSTRY**

Franchising is a business cooperation method operated on the concluded franchise agreement. On this basis, a franchisor is committed to a franchisee to provide rights to use, for a definite or indefinite period of time, the firm's trade name, brand, logo, signs, patents, inventions, trademarks, utility models, designs, know-how, concepts, business technology, as well as equipment for interior design, and to provide adequate assistance. In turn, the franchisee is ready to conduct the business activities in regards to the granted rights, practice and professional secrecy, as well as to pay remuneration in the agreed amount. A standard franchise package usually includes: trade mark (brand), know-how, operating manual specifying procedures for conducting the business, services provided by franchisors to franchisees, and franchise fees paid by franchisees to franchisors (Ostaszewski & Cicirko, 2006; Stecki, 1997; Szczepański & Szyszko, 2007).

The classification of franchise systems can be carried out according to different criteria, such as: type of business activity, type of know-how and system organization method. Considering the type of business activity there can be distinguished: distribution, service, manufacturing and mixed franchising. Distribution franchising is about the franchisor's obligation to deliver particular goods to a franchisee, who shall take the responsibility to sell them in pursuit of his/her business. This mainly applies to food products and industrial goods, sports goods and leisure articles, clothing, footwear, cosmetics, jewelry, gifts, household goods, and fuels. Service franchising involves using the grantor's trademark by a recipient and marking with it the items and services provided. This type of franchise is most common in

tourism, catering, education, finance and accounting, hairdressing, cosmetology, and real estate. Manufacturing franchising concerns the franchisor's obligation made to the franchisee to provide the know-how, production technology and professional secrecy in order to enable him/her to provide within the business, products with similar quality and performance characteristics to the goods of the network organizer. Such arrangements are mainly used in the furniture, clothing and food industry. Mixed franchising includes elements of the three primary forms of franchising and is mainly used in the following industries: cosmetics, IT and confectionary. Classifying franchising according to the type of know-how transferred to the franchisee, product distribution franchising and business format franchising can be distinguished. Product distribution franchising deals with transferring from a franchisor to a franchisee the know-how related to product distribution. Business format franchising has a much broader scope, consisting in transferring to a franchisee the complete know-how in a comprehensive business plan format. The franchisor shall provide, beside the knowledge about selling products or delivering services, also the know-how on customer service principles, marketing, design and visualization of the sales outlet and work clothing. Within the third proposed criterion – system organization forms – the following types of franchising can be distinguished: direct, indirect, single-unit, multiple-unit, 'corner' (mini-franchising), and inbound. The cooperation agreement under direct franchising is concluded directly between a grantor and a recipient, and the legal and financial interests of both parties are closely related. An agreement concerning franchising is concluded between a grantor and a recipient running a business on the territory which is recognized by the grantor as 'business attractive'. Single-unit franchising grants to the recipient the right to establish only one business-unit, a sales point in a limited territory, while multiple-unit franchising means that the recipient receives the right to set up many business-units or distribution points in a certain area. Mini-franchising involves conducting business activities by the recipient which are only part of the overall business activities of the grantor. Inbound franchising is characterized by the fact that the franchisor sells his/her products or services at the point of another franchisor (Łącka, 2004; Stecki, 1997).

The franchising market in Poland has been growing rapidly since 1989, since the beginning of the Polish transition to democracy. At that time, the interest of Polish entrepreneurs in international corporations that started their market expansion into the countries of Central and Eastern Europe increased. Then the development of franchising covered such areas as: expansion of

international concerns, franchise network formation in Poland, and franchise agreements implementation for the privatization process of the state-owned enterprises (Buga-Kurluta, 2001). In 2009, in Poland there were 26,640 retail and service outlets operated by franchisees. Compared to 2005, the number increased by approximately 54%. In 2009, 480 franchising systems were operating in the Polish market, so there were approximately 91% more than in 2005 (Table 1).

Table 1  
The development of franchising in Poland during 2005-2009

Item	Years				
	2005	2006	2007	2008	2009
Number of franchise outlets	17,260	18,660	20,590	22,280	26,640
Number of franchise systems	251	298	312	382	480

Source: own study based on data contained in the *Report on franchising in Poland 2009*, Profit System, Warsaw, 2010.

The development of franchising also relates to the Polish tourism market, mainly hotels and travel agencies. For example, hotels belonging to the Inter Continental Group are managed in Poland, within this business model, by Azure Properties, the UK-based group, and Accor's hotels are run by Orbis. In the case of travel agencies, franchising is used by tour operators such as Ecco Holiday, Neckermann, TUI Travel Centre and Sun Club. In 2005-2009 the number of franchise outlets in the Polish tourism market grew by about 62%, and franchise systems by 50% (Table 2). However it should be emphasized that, despite the growth dynamics of franchising net development, it is not so commonly used by the Polish tourism businesses. Currently, franchising is used only by 1% of all Polish hotels, while worldwide it is about 65%. The most important barriers to implement franchising in the Polish tourism market are: lack of investors with adequate capital resources, limited access to external financial resources, and the lack of confidence in the business model, probably due to the high capital needs and a relatively long payback period. As a result of these barriers, franchisees in Poland are mainly large investment groups from overseas.

Table 2  
The development of franchising in the tourism market in Poland during 2005-2009

Item	Years				
	2005	2006	2007	2008	2009
Number of franchise outlets in the tourism industry	118	143	143	157	192
Number of franchise systems in the tourism industry	8	7	10	8	12

Source: own study based on data in the *Report on franchising in Poland 2009*, Profit System, Warszawa 2010.

Meanwhile, franchising is a business model which can be particularly useful in the tourism industry. This is not only caused by its potential for reducing moral hazard, which will be described in detail further on in this study, but it can also be associated with the reduction of the high demand risk (Bednarska, 2004). The risk is mainly caused by the nature of the tourism product as a service (perish ability – as it cannot be stored and transported). Moreover, it is also affected by variability (the need to exist and cooperate with many tourism businesses) and sensitivity (seasonality and high sensitivity to changes in economic and random factors) of the tourism demand, which were already described. In fact running a tourism business under a famous brand allows reducing transactional costs and decreasing the risk of erroneous choice for customers of the tourism products. Customers are unwilling to bear the costs of searching for information about unfamiliar products, they prefer buying recognizable products. This is particularly important for products whose properties become apparent during the consumption process, and tourism services are on the list. Another important condition for implementing franchising in the tourism industry is called the positive network effect. Many consumers of tourism products develop repetitive habits of buying the same brand (e.g. booking hotels from the same hotel system or travel agency of the same tour operator). This generate profits for the company as it reduces the need for the intensive promotion of new products, decreases costs of acquiring new customers, and expands barriers to enter the market by other operators. Franchising can also positively influence the stability of financial results. This primarily applies to the entities with a high proportion of fixed costs in

the total costs, such as hotels. With the increase in sales volume, a reduction of average total costs is much more visible than within companies with a traditional cost structure. Identical changes in demand and sales, in both types of companies, will cause a greater change to the price over the cost per unit (unit profit) in the company with a high proportion of fixed costs. The financial result of such a company is therefore less stable compared to a company with a traditional cost structure. When the grantor of franchising is taking over such tasks as planning development strategy, making economic analysis, marketing and R&D activities, workforce development, or offers legal and financial support, then the recipient can be freed from many fixed costs. Participation in the central fund for consulting and marketing tasks, which depends on the volume of sales, will be considered then as a variable cost. As a result, the participation of the tourism business in the franchise network can partially offset the impact of demand fluctuations on the stability of the financial results.

In the case of the hotel industry, adding more facilities to the hotel corporation on the basis of franchising agreements can intensify permanent cooperation links between these outlets. The dominant entity (master franchisor – hotel corporation), after accepting the hotel's localization, the investor, and the project business plan, shall submit to the subordinate entity (franchisee – usually the owner of the planned independent hotel) business concepts to run the company under strict conditions. They mostly cover all the standards related to hotels that are part of the network, in particular the guidelines for designing the hotel building and rooms (with their furnishings and interior design), technology standards, hotel customer service standards, as well as ways to commercialize the object and incorporate it into the hotel's reservation system. As a result of this, the hotel built according to these standards is granted the right to use the protected trademark under the franchising agreement. The franchisee is entering the business with capital, which is primarily the hotel itself. The main obligations of the franchisee to the franchisor are the initial fee, royalty fee, and marketing and reservation fees. The basis for the calculation is generally the room revenue (Cunill & Forteza, 2010; Sala, 2008; Szostak, 2007).

Franchising in travel agencies usually applies to big international tour operators trying to expand the distribution network of their own products without the need for direct involvement of the capital, so they sign franchise agreements with entrepreneurs who wish to do business under their brand. Such agreements are usually concluded for an indefinite period or as long-term (5-10 years), which requires clearly defined business plans from the



potential franchisees. It is very common that such agreements include a clause by which the franchisee is granted the exclusive right to sell products of the tour operator in a given area, or restricting the right to sell other tourist offers, usually up to 10%, by the franchisee. Under the agreement, the franchisor is training the franchisee to run the travel agency under the shared brand name and offers on-going support after the opening. After signing the franchise agreement, the recipient receives access to the rich tourist product range of the tour operator, receive equipment and materials necessary to run the office (signboard, banner ads, catalogues, brochures, uniforms for workers, website, e-mail address in the domain of the tour operator, etc.), as well as technical and marketing assistance. The franchisee can also use the electronic reservation system, takes part in training provided by the franchisor, and receives constant support in the form of the Back Office. Sometimes franchisors also take part in negotiations with banks on raising funds to start-up the agency by the franchisee. Entities that enter franchise contracts must pay for the cooperation with the tour operator an initial or license fee, a percentage fee based on the monthly revenue, and fees for IT, marketing and shipping services. Sometimes the requirements are also covering the location and surface area of the premises in which the business activity will be carried out (Kacprzak & Mikulska, 2008).

Despite the fact that entering into a franchise agreement usually brings multiple benefits for both parties, it should also be remembered that it can sometimes be a source of potential disadvantages. The detailed analysis that takes into account such features as the purpose and potential of the company, the capacity to self-finance the development activities, as well as the conditions of internal and external environment, and access to potential co-operators, shall always be preceded by the decision on the selection of a business model, including franchising. The key pros and cons of using franchising in the tourism industry for both parties of the contract are presented in Table 3.

Table 3  
Pros and cons of franchising

Party of the franchise agreement	Pros	Cons
<b>Franchisor</b>	<ol style="list-style-type: none"> <li>1. Opportunity to expand on market without large capital investment.</li> <li>2. Development of distribution channels and competitiveness improvement.</li> <li>3. Increase revenues from franchise fees.</li> <li>4. Personal involvement in business activity by each recipient.</li> <li>5. Reduction in marketing expenses.</li> </ol>	<ol style="list-style-type: none"> <li>1. Possibility of non-compliance with the quality standards by the recipient.</li> <li>2. Risk of lack of motivation and disloyalty by the recipient.</li> <li>3. Danger of intentional under-reporting of profits by the recipient in order to pay lower franchise fees.</li> </ol>
<b>Franchisee</b>	<ol style="list-style-type: none"> <li>1. Receiving a ready concept for running the business and the brand name developed earlier by another entity.</li> <li>2. Ability to participate in central reservation system.</li> <li>3. Rebates and discounts when purchasing raw materials, semi-finished products, and equipment.</li> <li>4. Using standard accounting practices.</li> <li>5. Reducing the risk of business failure.</li> <li>6. Increased credibility with contractors, including financial institutions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Necessity to pay franchise fees.</li> <li>2. Strict compliance with the terms and conditions of the agreement, and lack of flexibility that arise due to this.</li> <li>3. Requirement for conducting detailed controls by the grantor.</li> <li>4. Limiting development opportunities to the area specified in the agreement.</li> </ol>

Source: own study based on Łacka I., *Franchising jako jedna z form aliansów strategicznych*, in „Scientific Papers of the University of Szczecin, Acta Iuris Stetinensis”, No. 16, pp. 58-63, 2004; Sala J., *Formy współczesnego hotelarstwa*, Wydawnictwo Uniwersytetu Ekonomicznego, Kraków, pp. 122-124, 2008.

### 3. INFORMATION ASYMMETRY AND MORAL HAZARD IN THE PRINCIPAL-AGENT MODEL

Information asymmetry is a situation where one of the entities engaged in an economic relationship is less informed than the other, in other words, it is a kind of imbalance of information between the parties (e.g. Akerlof, 1970; Stigler, 1961). The symptoms can be found in the labour market, because whether the employee is working with full effort or is 'shirking', is, to some extent, his/her personal knowledge. On the other hand, the employer is not able to perfectly monitor the employee's effort due to the high costs of such actions. Then we deal with the problem of the so-called hidden actions. In each case, the less informed party will be willing to learn all the necessary information, but the fully informed entities seek to maintain the superiority. The phenomenon of information asymmetry and the problem of hidden actions involve moral hazard. This means a tendency of a person that is not properly controlled to be engaged in unfair or undesirable activities (e.g. Shapiro & Stiglitz, 1984; Holmström, 1979).

The moral hazard phenomenon is typical for an agency relationship<sup>1</sup>. The principal is a supervisor and the agent is his/her subordinate. The employer-employee relation is a classic example of such a relationship. The moral hazard, in the case of an employee, will consist of his/her tendency to give an improper performance of the duties, because the employer is unable to control him/her in a perfect way, due to high costs. The principal-agent model incorporates certain assumptions, namely (Eisenhardt, 1989):

- the agent's behaviour shapes the principal's situation (the principal is dependent on the agent),
- the principal cannot observe the agent's behaviour with perfection due to information asymmetry and moral hazard,
- the interests of the agent and the principal are common, which means that each one of them would consider the agent's actions as optimum.

Let us perform a formal analysis of an optimal contract in a principal-agent model with information asymmetry (Macho-Stadler & Perez-Castrillo, 2001; Przeworski, 2004). Let us assume the following:

$$x = x(e, \theta),$$

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<sup>1</sup>The moral hazard phenomenon is characteristic for the insurance sector; both property and health insurance (see Łoś & Puciato, 2011).

$$e = \begin{cases} e^E & \text{when working} \\ e^0 & \text{when shirking} \end{cases}$$

where:  $e$  – agent's effort,  $\theta$  – random factor influencing production outcome (e.g. weather conditions),  $x$  – production size.

The principal is unable to determine whether the agent is working or shirking. He/she can only monitor the production outcome  $x$ . The probability to obtain the production  $x$  with the agent's effort on the level  $e$  is identified  $Pr(x|e)$ . We assume that there are only two production conditions  $x_2$  and  $x_1$ ,  $x_2 > x_1$ , where  $x_1$  is production success and  $x_2$  is production failure. Hence:

$p_2$  – probability of success when the agent is working:

$$p_2 = Pr(\theta, e = e^E),$$

$p_1$  – probability of success when the agent is shirking:

$$p_1 = Pr(\theta, e = e^0).$$

Note that:  $p_2 > p_1$ , which means that the probability of success that is the production volume is higher, when the agent's effort is also higher. The agent's remuneration depends on the production outcome:

$$w = \begin{cases} w_1 & \text{when } x = x_1 \\ w_2 & \text{when } x = x_2 \end{cases}$$

The principal's profit is expressed as:  $x - w$ . Therefore, the principal's utility function (assuming that the principal is risk-neutral) is:

$$B(x - w) = x - w$$

While the agent's utility function (assuming the agent is risk-averse) is expressed as:

$$U(w, e) = F(w) - e$$

where:

$$F'(w) > 0, \quad F''(w) < 0, \quad F(0) = 0$$

This means that the utility of the agent increases with the increase in his/her remuneration ( $w$ ), but the increase is slowing down (negative sign of the second derivative). It is also assumed that the utility of the agent decreases with the effort, and the decline is accelerating.

$\underline{U}$  is the best alternative for the agent in relationship to the contract with the principal. A necessary condition to conclude the contract with the principal is described as:  $U(w, e^E) \geq \underline{U}$ . The agent's certainty line is:  $w = w_1 = w_2$ .

To determine the optimal contract (the amount of the offered remuneration rate for the agent), the principal has to solve the optimization problem of maximizing the expected profit (general solution):

$$\max_{w(x_i)} \sum_{i \in n} p_i^E B[x_i - w(x_i)],$$

Subject to:

1. The agent's participation – the principal's offer is better than the best alternative for the contract:

$$\sum_{i \in n} p_i^E F(w(x_i)) - e^E \geq \underline{U}.$$

2. Taking efforts by the agent:

$$\sum_{i \in n} p_i^E F(w(x_i)) - e^E \geq \sum_{i \in n} p_i^0 F(w(x_i)) - e^0.$$

The detailed solution for the analysed case is:

$$p_2(x_2 - w_2) + (1 - p_2)(x_1 - w_1),$$

Subject to:

$$p_2 F(w_2) + (1 - p_2)F(w_1) - e^E \geq \underline{U}$$

$$p_2 F(w_2) + (1 - p_2) F(w_1) - e^E \geq p_1 F(w_2) + (1 - p_1) F(w_1)$$

$$(p_2 - p_1) (F(w_2) - F(w_1)) \geq e^E$$

$$F(w_2) \geq F(w_1) + \frac{e^E}{(p_2 - p_1)}$$

for the boundary condition:

$$F(w_2) = F(w_1) + \frac{e^E}{(p_2 - p_1)}.$$

This means that  $E > 0$  and  $p_2 - p_1 > 0$ , then  $F(w_2) > F(w_1)$  and  $w_2 > w_1$ .

The designated optimal contract proves to be ineffective according to Pareto. This can be best illustrated by using the Edgeworth box (Figure 1). The slope of the indifference curve of the principal  $Z_i$  can be calculated from the following equation:

$$p_i(x_2 - w_2) + (1 - p_i)(x_1 - w_1) = const$$

Hence:

$$\frac{dw_1}{dw_2} = \frac{-p_i}{(1-p_i)}$$

The slope of the indifference curve of the agent U can be calculated from the following equation:

$$p_i F(w_2) + (1 - p_i)F(w_1) - e = const$$

Hence:

$$\frac{dw_1}{dw_2} = \frac{-p_i F'(w_2)}{(1 - p_i)F'(w_1)}$$

If both parties have the same access to information, the optimal contract will be placed on the agent's certainty line and his indifference curve at the point marked I. However, under conditions of asymmetric information, which means that the agent's effort is unverifiable, such a contract would provide the agent with full insurance and would motivate him/her for shirking. The offered payoffs ( $w_2, w_1$ ) must therefore lie on the right side from the agent's certainty line to make him/her to undertake the effort  $e^E$ . The equilibrium point will be situated now at the utility curve of agent  $\underline{U}$  (fulfilled condition for the agent's participation and the principal's profit maximization) and when the agent fulfils the condition to make effort – at point II. Such a contract assumes a differentiation in payment rates according to the production outcome, in order to make a sufficient incentive to undertake the effort.

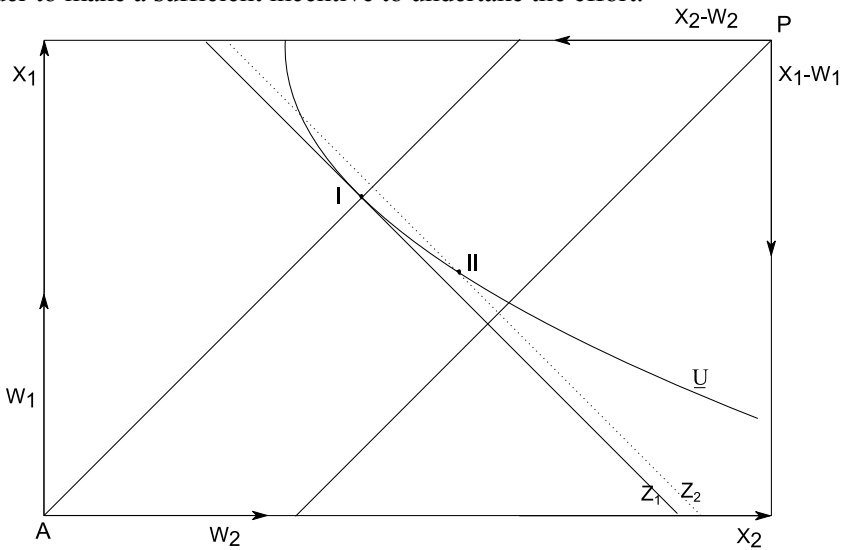


Figure 1. Optimal contract in case of information asymmetry in the principal-agent model

Legend:  $x_1$  – production volume in case of failure;  $x_2$  – production volume in case of success;  $w_1$  – payment in case of failure;  $w_2$  – payment in case of success;  $x_1-w_1$  – principal's profit in case of failure;  $x_2-w_2$  – principal's profit in case of success; straight line at an angle of  $45^\circ$  from point A – agent's certainty line (while  $w_1=w_2$ ); straight line at an angle of  $45^\circ$  from point P – principal's certainty line (while  $x_1-w_1=x_2-w_2$ );  $Z_1, Z_2$  – principal's indifference curves;  $\underline{U}$  – agent's indifference curve; I – equilibrium point in case of first best; II – equilibrium point in case of second best.

Source: own study based on Eisenhardt K., *Agency theory: An assessment and Review*, Academy of Management Review, Stanford, 1989; Macho-Stadler I., Perez-Castrillo J., *An Introduction to the Economics of Information, Incentives and Contracts*, Oxford University Press, Oxford, 2001.

As shown, the optimal contract is not Pareto-efficient. Any point between *I* and *II* represents utility increase for principal and agent, and improvement according to Pareto terms. However, due to the information asymmetry such an agreement will encourage the agent not to make the effort. Global utility loss is a specific cost of the agency. This contract is *second-best* and contains both insurance and incentive.

Payment differentiation depends on the subjective cost of making an increased effort  $e^E$  by the agent (the bigger the effort is, the greater payment differentiation must be made), on his/her aversion to risk expressed in shapes of indifference curves, and the impact of random factors on the production outcome ( $p_2 - p_1$ ). When the risk aversion is strong and the impact of random factors is high, only an attractive offer can impose on the agent to make an effort, because the agent's need to be insured increases, as well as the unwillingness to accept risky offers. This leads to greater agency costs and loss of global utility. The better the agent's offer, the more the principal's interests are at risk. Beyond the limit imposed by the equation  $x_2 - w_2 = x_1 - w_1$  (principal's certainty line) is an area, where the principal's profit are negatively correlated with production. Table 4 contains a summary of elements of an optimal contract in the presence or absence of information asymmetry.

Table 4

Characteristics of an optimal contract in case of complete information and information asymmetry

Characteristics of an optimal contract	Case of complete information <b>I</b>	Case of information asymmetry <b>II</b>
Payment for the agent	$w = w_1 = w_2$	$w_1 < w_2$
Preferred effort accepted by the agent	$e^E$	$e^E$
Agent's utility	$\underline{U}$	$\underline{U}$
Principal's utility (profit)	$Z_1^*$	$Z_2^*$
Social welfare	$\underline{U} + Z_1^{**}$	$\underline{U} + Z_2^{**}$

\*  $Z_1 > Z_2$ ; \*\*  $\underline{U} + Z_1 > \underline{U} + Z_2$

Source: own study

The important limitations of the model arising from the assumptions should be indicated:

a) First of all, it is assumed that the agent is characterized by risk aversion, while the principal is neutral. This impacts the principal's utility

curves  $Z_i$  presented on the figure – in practice, they do not have to be linear (Martin, 1988).

b) Secondly, it is assumed that the determination of whether the output is the result of the agent's effort or serendipity, is impossible, which does not have to be necessarily true (Mirrlees, 1971; Riley, 2001; Rochet & Stole, 2003; Martin, 1988). Assuming that the principal would be able to determine the amount of the agent's effort, an optimal contract would be the one that provides the same incomes, regardless of the size of the output, provided that an effort  $e^E$  will be made (see Figure 1 and Table 4).

c) Thirdly, it is assumed that in each case the higher probability to obtain greater outputs corresponds to the higher efforts made by the agent. In practice, there is no such guarantee, e.g. in a situation with particularly unfavourable natural conditions, it can turn out that even when the effort made by the agent is large, the output is low. Similarly, when the external conditions are good, a minimal effort can lead to large outputs (Gayle & Miller, 2009).

d) Fourthly, it is assumed that these two production conditions  $x_2$  and  $x_1$ , with  $x_2 > x_1$ , where  $x_1$  is the production success, and  $x_2$  is the production failure. When a greater number of intermediate  $i$ -states of production is assumed, the proposed payment contract should include  $i$ -conditions of payments (Gayle & Miller, 2009).

e) Finally, the presented model is bilateral and static – the situation of one agent and one principal is analysed. The situation of  $n$  agents, among whom the principal is making a selection, as well as the situation with  $j$ -variety of principals competing with each other, in order to specify the terms and conditions of the contract, are excluded (Rayo, 2007). In addition, the carried out analysis applies only to one period, so the analysis of the agent's and principal's behaviours in the next period, in the case of risk implementation, is impossible (Sannikov, 2008; Bolton & Dewatripont, 2005; Gayle & Miller, 2009).

#### **4. DIRECTIONS FOR OPTIMALIZATION OF FRANCHISE AGREEMENTS IN THE TOURISM MARKET**

The model used in the study, despite its significant limitations, indicates the benefits of implementing contracts that differentiate payments in order to create a sufficiently strong incentive to undertake effort. The specifics of the tourism sector – information asymmetry, the financial result being dependent



on random factors, spatial dispersion of entities affecting their monitoring, and a significant proportion of customers transient by nature – imposes that implementing franchising in the tourism industry as a business model seems to be very beneficial.

An optimal franchise contract minimalizes the costs associated with the need to control the franchisee's activities, while allowing him/her to use knowledge about the local tourism market. However, it should be noted that the key issue is, in this case, a proper construction of the contract, whose aim is to encourage the franchisee to undertake to work hard, to reduce moral hazard, and to protect the interests of the franchisor.

Generally, a franchise contract requires, apart from paying the initial franchise fee for the know-how and brand, also a periodic fee, usually monthly, and franchise fees for various services performed for the franchisee. Shirking on the part the agent, in the case of tourism services, can take two forms: quantity (reduction in the number of services provided) or quality shortfalls (defects in standards of cleanliness, customer service, etc.). In order to reduce quantitative fraud, the franchise agreements should include a properly constructed periodic royalty fee. It should be constructed on the basis of an easy to determine and observable measure of the franchisee's efficiency, such as revenue. This measure cannot be based on costs, because the franchisee will not be motivated to reduce them, being able to control the mass part of the business activity. For hotels it is therefore appropriate to construct the franchise fee as a function of: RevPAR (*revenue per available room*), reservations made, and the number of the rooms owned. For travel agencies, the fee should be based on the obtained commissions.

If the franchise fee is being constructed based on the revenue indicator, it should be defined as its fixed percentage. When it is determined in the above described way, it constitutes a mixture of insurance (it is a fixed percentage of turnover, so when the sales are low, it is low) and incentive to make efforts (payment depends on the work results) for the franchisee. The application of non-linear scheme to determine the amount of the fee allows having an even better incentive impact. Then, the fee consists of a fixed part (certain amount) and a variable part expressed as a percentage of revenues. Such a fee structure leads to flattening the marginal cost curve of the franchisee, encouraging him/her to undertake greater effort (the higher the revenues are, the faster the franchisee's profit grows in relation to the amount of the franchise fee).

To set the franchise fee at the right level, a simulation should be carried out to allow determining its impact on the profitability of the franchisee. In other words, the amount of the fee should be such, so that after it is charged, other revenues ensure covering the costs of running the business (assuming that some costs cannot be controlled). This is particularly important for hotels, due to high fixed costs, high cost effectiveness, and significant seasonality of the demand, as well as for travel agencies, due to their low-margin profits, problems with financial liquidity, and high exchange rate risk. A determination of the impact of franchise fees on the franchisee's profitability can also be performed, using the break-even point of the franchise agreement. This threshold allows specifying the required number of accommodation services provided, in the case of hotels, or the amount of the obtained commissions, in the case of tourism agencies and brokers, which allow to cover the costs arising out of the franchise fees (to determine the threshold for hotels, it may consist of dividing the franchise fee costs by estimated earnings per room sold).

Shirking on the part of the agent as qualitative deficiencies is much more difficult to overcome using the financial incentives (Klein & Murphy, 1988). In the tourism industry, a major role is played by such aspects as: brand, high costs of providing appropriate quality standards, and the significance of psychological indications in assessing the quality of products. This makes the quality to be of particular importance and is at the centre of interest of the franchisor in tourism. Therefore, the terms and conditions of the contract should be extended by a set of the following elements that make shirking to be economically irrational:

a) Provisions for monitoring and auditing – the actual level of monitoring depends on the relationship between the cost and the benefits. However, the cost of monitoring depends on the frequency of the franchisee's monitoring and the distance from the franchisor (Wainwright, 2007).

b) Provisions on the possibility to terminate the contract by the franchisor, if irregularities are detected.

c) Entry capital requirements – similarly to the initial fee, they aim to select the entities that are determined to become franchisees.

## CONCLUSION

Franchising, as a form of economic cooperation, is often associated with a stronger incentive encouraging co-operators than those that occur in the case of the traditional development of their own distribution network of tourism services. Setting a dependency between the payoff and the obtained results makes the franchisee more motivated and working more efficiently to maximize the economic outcome. Therefore, it reduces the probability of failure and the possibility of bankruptcy. This is confirmed by the survival analysis of enterprises in their first stage of development, which shows that the probability to survive for a firm operating within a franchising network is almost twice higher than for a firm operating in the traditional manner. So wherever the monitoring of the efforts of the co-operators is made difficult, impossible or expensive, franchising should be implemented instead of their own distribution networks. This finding is particularly relevant for the tourism market, where a large dispersion of spatial entities takes place.

Moreover, the appropriate construction of the contract gives the possibility to reduce the moral hazard of the franchisee in the tourism sector by using franchising. In this case, the most important role is played by financial incentives that can be included with additional contractual restrictions. The principles to operate franchise agreements in the tourism services do not differ radically from the ones that apply to other sectors of service activities. Due to the specificity of the industry, already mentioned in the study, the issue of determining the amount of franchise fees should be considered with a certain caution. In fact, they impact on the agent's (franchisee's) profit and the implementation of the principal's (franchisor's) interests.

The topicality of the problem considered in this study and the weak awareness of it in the tourism market impose the need to carry out further in-depth research on information asymmetry in this economic sector. The research should concern not only the relationship between the cooperating entities but also include competitive companies, public authorities, employees of the enterprises, and tourists. The analysis should also be extended by more complex models that take into account a greater number of participants in the contract and conditions of their involvement, and should analyse these issues from a dynamic perspective.

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