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RISKS IMPACT ON THE ACCOMMODATION AND FOOD SERVICES: THE CASE OF LATVIA

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Abstract

The target of this work is to research risks impact on the commercial activity of the accommodation and food services sector's enterprises. Classification of technological process risks of the accommodation (hotel) and food services are created in the article. The authors have carried out a survey of the most important risks' factors in the stages of the technological process. Classification of Latvian accommodation and food services sector's economic and financial risks are created in the period from year 2012 till year 2013. Risks ranking method, experts' method and special coefficient method are used to analyse risks impact on Latvian accommodation and food services sector enterprises' development. The risks matrixes are used as risks assessment tools. Risks are arranged by the size of potential losses. The risks assessments by using the special coefficient method are made in the period from year 2007 till year 2012. The authors have offered rating of external and internal risks by their impact on the commercial activity of enterprises. The authors have used their own created model of enterprises' risks identification, classification and assessment that to research risks impact on Latvian accommodation and food services sector enterprises' development.

Keywords: Assessment, Risks Identification, Classification and Assessment Model, Risks Impact on the Accommodation and Food Services

1. Introduction

It is important for enterprises, operating in the accommodation and food services sector, to create an efficient economic activity in both period when sector's turnover growth or slowdown. Enterprises have to form marketing activities to attract new and retain existing clients in hotels, restaurants and cafes, as well as create marketing activities that increase client loyalty to enterprises' brand. Because due to changes in the clients' solvency, for the accommodation and food services sector's enterprises are important to follow up income and expenditure ratios every month or quarterly. If enterprises regularly follow financial health indicators, they may efficiently deal with enterprises' solvency problems. In order to develop their business strategy, enterprises need to identify, classify and assess the Latvian accommodation and food services sector's risks. Research object is Latvian accommodation and food services sector from year 2004 till year 2013. Research subject is Latvian accommodation and food services sector's risks and their impact on sector's enterprises development.

The authors have researched the division of the Latvian accommodation and food services sector turnover in year 2012. The turnover of accommodation services is the lowest and it forms 27% of the total sector turnover. The turnover of food services forms 73% of the total Latvian accommodation and food services sector turnover. In the period from year 2004 till year 2013 the authors have researched changes of Latvian accommodation and food services sector turnover. In the period from year 2004 till year 2007 in Latvian accommodation and food services sector has been observed an increment of total turnover. In year 2007 the total turnover of sector reached biggest rates. From year 2008 sector's turnover has started to decline, reaching lowest rates in year 2009. From year 2010 Latvian accommodation and food services sector's turnover has begun to increase. In year 2012 the total turnover of sector reached same value with year 2008 (Data of Central Statistical Bureau of Latvia, 2014).

2. Previous Research

Baumane and Vedina (2011) have researched Latvian hotel performance possibilities, due to tourism promotion. As well as it describing how capacities and competences could be used for achieving a sustainable competitive advantage within hotels management. Dehtjare (2008) has researched the hotel services market in Latvia. Hotel services have different quality and amount of offered services. Largest market share of Latvia have three-star hotels with medium service quality and price levels. Enterprises conclude contracts with global hotel chain operators, and join the overall activity with a single hotel brand and operational concept. Millere (2009) has studied the processes of food services enterprises in Latvian regions. Risks associated with the food safety plays an important role in the food service. The company's employee's lack of professional experience and ignorance of legislative increases the probability of infectious diseases among consumers. Urban (2009) has studied problems of quality in commercial activities of services enterprises and quality role in their enterprises development. Important factor in food services organization is qualification of staff. It is necessary to train staff so that client's requirements are satisfied qualitatively and in time (Sala, 2006).

Komkova (2008) has researched the need of risk management and major problems in Latvian non-financial companies:

- commercial companies have a lack of understanding about the need of the implementation of risk management;
- the practical implementation of risk management is not possible without relevant risk models adaptation to Latvian economic situation;
- there is a lack of experience in implementation and adaptation of risk management.

Zimecs and Ketners (2009) have researched the importance of risk management for small and medium enterprises. Because of the impact of the economic crisis on activities of Latvian small and medium enterprises, it is important for their entrepreneurs to understand and create a system of the risk management. This system of risk management should be integrated into enterprises development strategies and could also be used for increasing the level of enterprise competitiveness. Zimecs and Ketners (2010) have also studied business solution methodologies and their impact on risk management and carried out survey of risk management developments. As shown by the survey results, the businessmen, who use the risk management elements in their daily activities, mainly manage risks by using information of business results. In order to create a sustainable competitive advantage company should take into account risks and their impact on companies' development. Rutkauskas (2008) have researched risk management problems. The important stage of risk management is risk identification and classification.

Henschel (2010) have studied German SMEs' risk management problems, and carried out questionnaire of enterprises about it. Level of risk management is different in enterprises. In first variant there is risk identification and their documentation. In second variant staff of enterprise additionally are forming risk classification and risk assessment. In third variant enterprises do above mentioned two methods and additionally perform risk management systems. According to questionnaire results if you perform risk management system than size of enterprise is uppermost factor. The bigger enterprise, the detailed and completed is risk

management system. According to questionnaire of German small and medium-sized enterprises results budget planning mainly was made in time period from two to three years. Most of small and medium-sized enterprises risk identification and assessment was doing once in a three months.

Korombela (2012) have studied risk management problems of Polish SMEs and carried out questionnaire about it. Representatives of small and medium-sized enterprises (there was fully completed 101 inquiry form) arranged risk by their importance. The most important risks were the risk of financial instability (F5), the risk of increasing competition (E7) and the risk of legislative changes (E1).

Jansone *et al.* (2010) have studied impact of financial and economic risks to extension of food retail industry of Latvia. The authors have created classification of Latvian food retail industry's financial and economic risks from year 2008 till year 2009. From year 2006 till year 2008 authors had studied situation of competition in food retail industry of Latvia and had studied medium financial indexes of food retail industry enterprises. Jansone and Voronova (2013) studied medium financial indexes of trade services enterprises in Latvia from year 2004 till year 2011. Based on economic analysis of trade services enterprises medium financial indexes is created risk level dynamics assessment by using special coefficient method. This risks assessment demonstrates that Latvian trade services sector risks had increased in the period from year 2004 till year 2011. Jansone and Voronova (2010) have researched assessment tools of Latvian trade services sector enterprises' financial stability by using methods of risk estimation. Enterprises are able to operatively evaluate probability of risk of financial instability's increment and to prevent threats of insolvency (bankruptcy). Voronova (2012) have studied assessment of financial risks for risk management system in non-financial enterprises in several countries.

3. Risks Assessments Tools for Services: Theoretical Consideration

The authors have researched types of risks, their identification, classification and assessment possibilities. The purpose of the First International Risk Management Standard ISO 31000 (ISO, 2009) is to provide principles and generic guidelines on risk management. After the above-mentioned standard risk is effect of uncertainty on objectives. Impact of risk could be negative (losses) or positive (profit). If we study negative impact of risks, than amount risk characterizes possible amount of result (losses) and probability of realization. Process of risk assessment includes identification and classification of risk and risk analysis of quality and quantity. In risk identification process it is the important to identify sources of risk, areas of impacts, events (including changes in circumstances) and their causes as well as their potential consequences. For the classification of risks the authors have applied a methodological basis which allows considering risk classification to be coherent in terms of its sources and cost, flexible (adjustable), and corresponding to the principles of business management.

Classification of risks is to range them by specific characteristics. The authors, classifying risks by the public relation's field, have considered the economic risks. The authors, classifying risks by type of commercial activity, have considered the financial risks. The economic risk is the decline of enterprises' competitiveness and the possibility of losses by unforeseen changes in economic situation. The financial risk is the possibility of the financial resources' losses by its financial default or failure of financial management. Risks are classified by fields of origin:

- external risk arises in the external environment; it does not depend on actions of the business structures;
- internal risk arises by activities of the business structures.

The financial risks are greatest share of the total package of business risks. They have both objective and subjective nature. The subjective nature of financial risk is associated with the circumstances (Hillson and Murray-Webster, 2007):

- the businessmen assess the risk situation and make the choice of many alternatives;
- risks perception is associated with each person's character and psychological traits, knowledge and experience in their own fields.

In order to quantitatively assess the risk level, the authors have used two values, i.e., possible amount of risk result (losses) and its probability of realization. Risk level is multiplication of result of risk (losses) and its probability of realization. Risk level can be calculated by Formula (1).

$$Risk\ level = Result(losses) \times Probability \quad (1)$$

For risks assessment the authors have used risk matrixes. Risks matrixes and risks maps are one of the most common and easiest risk assessment tools. The application of risks matrix does not require the usage of a wide knowledge of quantitative risk analysis. It is necessary to develop a range of probability and detailed descriptions of the consequences for each of the possible scenarios. The authors recommend using risks matrixes and risks maps in order to assess different types of risks. For quantity assessment of risk, it is possible to use risks matrixes which arrange risks by their possible amounts of result (losses). For each risk, its probability of realization is also assessed (Vincent, 2010). The size of the risk characteristics (losses) are divided into – small risk, medium risk, big risk, maximum acceptable risk and critical risk. The maximum acceptable risk - when possible amount of losses are smaller than possible amount of profit as well as the critical risk - when possible amount of losses are larger or equal than possible amount of profit. The authors have created risk matrix where are different zones of risk level, shown in Table 1.

Table 1. Example of risks matrix (Different zones of risk level)

0.8-1.0	B	A	A	C	C
0.6-0.8	B	B	A	A	C
0.4-0.6	M	B	B	A	A
0.2-0.4	M	M	B	B	A
0.0-0.2	S	M	M	B	B
Probability of realization	Small risk	Medium risk	Big risk	Maximum acceptable risk	Critical risk
Characteristics of the size of risk (losses)					

Source: The authors have created

Descriptions of zones of risk level are as follows:

- S (Small risk level): Small losses and probability of realization (0.0-0.2);
- M (Medium risk level): Small losses (0.2-0.6), medium losses (0.0-0.4), and big losses (0.0-0.2);
- B (Big risk level): Small losses (0.6-1.0), medium losses (0.4-0.8), big losses (0.2-0.6), maximum acceptable losses (0.0-0.4), and critical losses (0.0-0.2);
- A (Maximum acceptable risk level): Medium losses (0.8-1.0), big losses (0.6-1.0), maximum acceptable losses (0.4-0.8), and critical losses (0.2-0.6);
- C (Critical risk level): Maximum acceptable losses (0.8-1.0) and critical losses (0.6-1.0).

Risk matrix can be used to choose enterprises' strategy of risk management (Alexander and Marshall, 2006). Enterprises' strategy of risk management is developed by analysing zones of risk level:

- in zone of small risk level, medium risk level, and big risk level for enterprises, it is recommended to create a risk management system in order to decrease identified risks, their possible amounts of losses, and probability of realization;
- in zone of big risk level and maximum acceptable risk level for enterprises, it is recommended to realize risk insurance;
- in zone of critical risk level for enterprises is recommended business interruption.

Jansone and Voronova (2014) have applied risks matrixes and risks maps in order to assess different types of risks. Using the risks matrixes employees of the enterprises can

assess each risk possible losses and its probability of realization. Several parts of the risks map (segments) make it possible to assess each type of the risk separately in its segment. Assessing the zones of the risk levels small and medium-sized enterprises can create their own risk management strategies.

The authors have used the experts' method for economic risks assessment. For experts it's easier to compare risks in pairs, than all risks rank at once. Wherewith the authors offer the economic risks (from E1 till E7) (n = 7) experts assessment of the risks comparing in pairs. The authors have been working with an expert group of five (m = 5). Each expert fills the matrix. Expert gives the value of one for risk assessment, if he considers that the given risk (object) Xi is greater than the comparative risk (object) Xf. The check box of common matrix shows how many experts have given a preference for a particular risk, shown in Table 8. Numeral of matrix box Yif shows how many experts preferred to object Xi to the object Xf. As the number of experts is five, then total number is five in every assessment of risks.

According to Markovics (2009) consensus degree of expert opinion is determined by the formula (2). The sum extends over the check boxes, which are located below the diagonal:

$$V = \frac{4 \cdot (\sum Y_{if}{}^2 - m \cdot \sum Y_{if} + C_n^2 \cdot C_m^2)}{m \cdot (m-1) \cdot n(n-1)} \qquad (2)$$

where *V* is consensus degree of expert opinion; Y_{if} symbol is value at matrix; C_m^2 is number of combinations in pairs elements; m - number of experts; n- number of assessed risks. To complete coincidence of the experts' opinion V = 1.

Jansone and Voronova (2012) have used the risks ranking method for external risks and internal risks assessment. The authors have divided external and internal risks into several groups of risks, shown in Figure 1. In group of risk R_1 are economic risks. In group of risk R_2 are external financial risks and in group of risk R_3 are internal financial risks. In group of risk R_4 are accommodation (hotel) technological process risks and in group of risk R_5 are food services technological process risks.

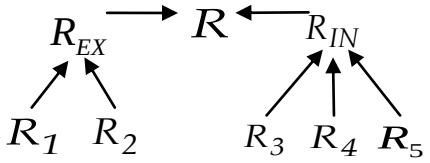

Figure 1. Latvian accommodation and food services sector external and internal risks division into groups of risks
Source: The authors have created

The external risks R_{EX} consist of groups R_1 and R_2. Groups of risks R_1 and R_2 weighting coefficients of impact are $w_1 = w_2 = 0.5$, by the formula (3). The total sum of weighting coefficients of impact is 1:

$$w_k = \frac{1}{n} \qquad (3)$$

where: n – amount of risks' groups and k - ordinal number of risks' group.

Internal risks R_{IN} consist of groups of risks R_3, R_4 and R_5. Groups of risks R_3, R_4 and R_5 weighting coefficients of impact are $w_3 = w_4 = w_5 = 1/3$, by the formula (3).

The authors have created external and internal risks ranking by their impact on accommodation and food services sector's enterprises' development, shown in Table 9 and Table 10. The risk with the greatest impact has the greatest weighting coefficient. For each next risk, weighting coefficient is less than for the previous one. Groups of risks R_1, R_2, R_3, R_4 and R_5 weighting coefficients of impact are calculated by the Fisburna formula (4) (Fishburn, 1970, Loiko and Jefanova 2008).

$$w_i = \frac{2(m-i+1)}{(m+1)\cdot m} \quad (4)$$

Groups of risks R_1, R_2, R_3, R_4 and R_5 are calculated by the formula (5):

$$R_k = \sum_{i=1}^{m} w_i \cdot q_i \quad (5)$$

where m - number of risks in a group and i - ordinal number of risk in a group; α_i - the risk value at the risks matrix scale and w_i - weighting coefficient of impact.

4. The Accommodation and Food Services Technological Process Risks

In accommodation services include the provision of short-stay accommodation, typically on a daily or weekly basis, principally for short stays by visitors and other travellers. Services include daily cleaning and bed coating. At a range of additional services may be provided such as food and beverage services, parking, laundry services, swimming pools and exercise rooms, recreational facilities as well as conference and convention facilities (Rutherford and O'Fallon, 2007).The accommodation (hotel) services include the placement of various clients comfort level apartments, catering and additional services (beauty, health and fitness, etc.) provision. Introducing of new technology can reduce the risk of hotel security systems. Surveillance cameras and recordings allows for follow-up in hotel's territory (inside and outside). Electronic door locks offer opportunities to improve safety measures for premises. Computerized accounting system will improve the quality of accommodation (hotel) services.

In food services include food and beverage serving activities providing complete meals or drink fit for immediate consumption, whether in traditional restaurants, self-service or take-away restaurants, whether as permanent or temporary stands with or without seating. There are restaurants, bars and canteens, where offer catering. In order to make qualitatively meals, exercises' production premises have to be arranged in such, so that in stages of technological process flow map (starting from raw materials until ready food products serving) would be impossible to comply with HACCP requirements (Kotschevar, 2007).

According Melngaile (2008) Hazard Analysis and Critical Control Point (HACCP) system provides a methodology to manage the food services technological process. This is a warning system and is designed to eliminate (minimize to an acceptable level) the risk that the dangerous products will be delivered to the clients. The HACCP system consists:

- make the analyses of risk causes, in order to create a list of risks causes; identify critical control points of technological process; determine borders of control points;
- create a system to verify critical control points with systematic tests; determine necessary corrective activities to limit borders of critical control points;
- make documentation of necessary activities; as well as creation of verifying tests to make sure that the HACCP is working effectively.

Important factor in food services organization is qualification of staff. It is necessary to train staff so that client's requirements are satisfied qualitatively and in time. Qualification and skills of kitchen staff will determine quality of food products. The latest technology equipments will provide qualitative preparation and storage of food products until meals have been delivered

to the customers. The authors have created the technological process flow map of accommodation (hotel) services. At map should be ensure opportunities that clients can make reservations of hotel rooms; can make the hotel registration; can obtain accommodation in the hotel; can get additional services (beauty, health and fitness, etc.) as well as to account for this services. The authors have created the technological process flow map of food services. At map should be ensure opportunities that clients can make ordering food from created food assortment; must provide clients with prepared meal and clients are serviced at the table as well as clients have to make payment for food services. The authors have carried out a survey of the most important risks factors in the stages of the accommodation (hotel) and food services technological process:

- the place is one of the most important factors; the hotel must be located in place where it is easily and comfortably for clients' driveways by cars; the road infrastructure should be set up in order to be able to go the airport, the railway station and the bus station;
- premises thematic decoration should be according to clients' needs and expectations; at the furnishings of the premises should use the latest technologies and take into account national specificities;
- the assortment of services and the amount must be such that it is able to offer clients services according to their needs and wishes; the price level of services must comply with the clients' solvency of the chosen market segment;
- the appropriate level of services will ensure that clients will be satisfied and return to the hotel; therefore should be providing an appropriate training of staff.

The authors have carried out an additional survey only for risks factors in the stages of the accommodation (hotel) services technological process:

- for accommodation (hotels) services' enterprises it is important to cooperate with tourism services 'enterprises to provide the clients with the opportunity to make a room reservation; the second type of reservation is realized with the help of a web site;
- enterprises should offer clients additional services (beauty, health and fitness, etc.) according to their needs and wishes;
- it is necessary to realize the hotel security service operation so as to prevent possible damage to the clients and their personal belongings.

The authors have carried out an additional survey only for risks factors in the stages of the food services technological process:

- it is important to provide realization of the stages of Hazard Analysis and Critical Control Point (HACCP) system;
- acceptance of raw materials, preparation for processing, preparation and storage of food products have to be realized in accordance with the requirements of the HACCP system.

The authors have carried out classification of accommodation (hotel) and food services technological process risks, shown in Table 2 and Table 3. As well as food services has been reviewed as a component of accommodation (hotel) services. Describing specific risks are shown possible causes of losses.

Table 2. Classification and description of accommodation (hotel) services technological process risks

Stage of Technological Process	Risk of Technological Process	Description of Risk
Reservation of hotel rooms	V1. The risk of reservation	Possible loss if the clients cancel the reservation
Client registration in hotel	V2.The risk of registration	Possible loss if the hotel cannot provide reservation of rooms
Hotel security department	V3. The risk of security system	Due to thefts or attacks
Food services ordering	V4. The risk of ordering food services	The possibility of client poisoning and diseases
Hotel room service department	V5. The risk of room service	If required job skills of hotel employees are missed
Ordering of additional services	V6. The risk of ordering additional services	Quality assurance of addition services
Client checkout of hotel	V7. The risk of client's payment	Possible losses if payments are not made correctly
Accounting department	V8. The risk of accounting	Possible losses if accounting is realized partly

Source: The authors have created

The authors have created the technological process risks matrix for quantitative risks' assessment, shown in Table 7. Risks are arranged by the size of potential losses, which they could create sector's enterprises. Food services enterprises commercial activities should be organized to ensure the quality of food presentation for customers and clients to avoid illness or poisoning possibilities. Therefore, it should be designed HACCP system to track all technological process and ensure the quality of cooking. Because food services has been reviewed as a component of accommodation (hotel) services, then stages of the technological process (accounting and payment departments) operate in both types of services.

Table 3. Classification and description of food services technological process risks

Stage of Technological Process	Risk of Technological Process	Description of Risk
Supply of food assortment and prices	D1. The risk of choice of food assortment	Possible losses if client does not choose suggested dishes
Hazard Analysis and Critical Control Point (HACCP) system	D2. The risk of HACCP system	The possibility of clients poisoning and diseases if he eats food products
Acceptance of raw materials	D3. The risk of acceptance of raw materials	The quality of raw materials does not agree with the requirements
Stage of HACCP system	D4.The risk of employees' hygiene	Employee's daily work compliance with HACCP
Preparation and storage of food products	D5. The risk of food preparation	The quality of the food does not agree with client's requirements
Preparation and storage of food products	D6. The risk of food products storage	The quality of the food does not agree with client's requirements
Client's service at table	D7. The risk of client's service	Employees contact directly with clients

Source: The authors have created

The risk of client's payment (V7) and the risk of accounting (V8) are jointly also in food services. Entrepreneurs should take actions to reduce technological risks, enhancing and improving the stages of the accommodation (hotel) and food services technological process.

5. Model of Sector Enterprises Risks Identification, Classification and Assessment

Identify risks by creating the Latvian accommodation and food services sector SWOT analysis, including estimation of sector's external environment's opportunities and threats, also defining sector's internal environment's strengths and weaknesses (Voronova, 2008). For assessment of risks of the Latvian accommodation (hotel) and food services sector the authors have used their own created model of enterprises' risks identification, classification and assessment, presented in Figure 2.

Important stages of this model:

- for risks identification make the SWOT analysis of Latvian accommodation and food services sector as preparing enterprise to introduce the euro in the country and get to know with the surveys of the major risks in the world;
- create the accommodation (hotel) and food services technological process flow map;
- for risks classification create surveys of the risks factors in the accommodation (hotel) and food services technological process;
- create survey of Latvian accommodation and food services sector's economic and financial risks;
- for risks assessment evaluate risks in order to create risks matrixes; assess risks by using the special coefficient method;
- assess risks by using the experts' method;
- assess risks by using questionnaire about risks impact on enterprise's development (information from participants who represents enterprises of sector);
- rank external and internal risks by their impact on sector enterprises' development (by using the risks ranking method).

The authors have done the analysis of external and internal environment of Latvian accommodation and food services sector in period from year 2012 till year 2013. External environment's opportunity is to increase turnover of Latvian accommodation and food services sector, than the country stimulates the economic growth. External environment's threat is the risk of insufficiency of credit resources, which may lead to decrease of current assets. Latvian accommodation and food services sector internal environment's strength is a possibility to offer assortment of quality services, because level of staff skills has been improved. Internal environment's weakness is a possibility of reduction in assortment of services due to risk of insufficiency of credit resources.

By following changes in the external environment entrepreneurs can determined dynamics of the economic risks and their impact on the enterprise's commercial activities. With changes in the dynamics of the economic risks entrepreneurs may change their commercial activities strategy. Based on the changes in the external environment, entrepreneurs account for the strengths and reduce the weaknesses of enterprise's internal environment. This all contribute enterprise's commercial activities according to change in dynamics of internal and external financial risks.

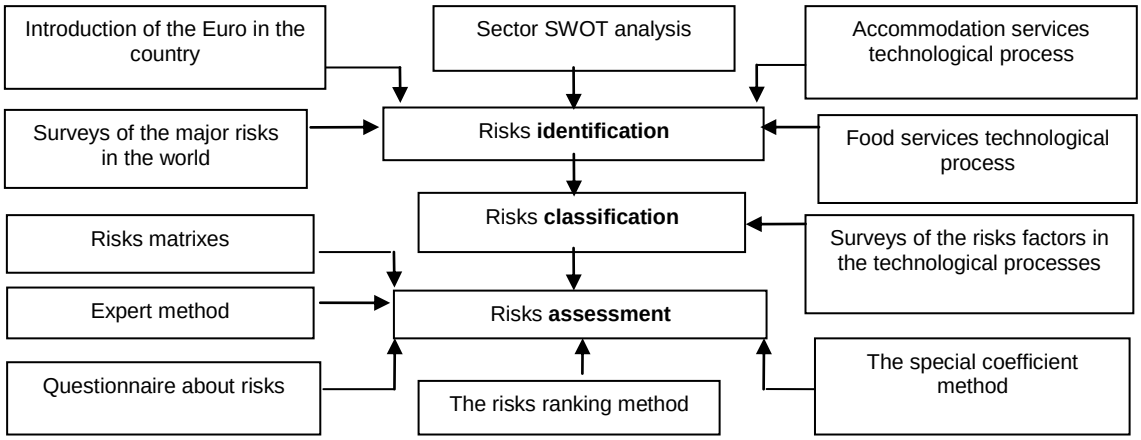

Figure 2. Model of enterprises risks identification, classification and assessment
Source: The authors have created

Analysing the external environment, the authors studied about the surveys of the major risks in the world. Aon Corporation, who is the leading global provider of risk management services, published Global Risk Management Survey (Aon, 2013) results. Respondents, which included 1415 enterprises and organizations from 70 countries, representing the widest range of industries, as the significant risks mentioned the economic slowdown; regulatory/legislative changes; increasing competition; damage to reputation/ brand; failure to attract or retain top talent; failure to innovate /meet customer needs; business interruption risk; commodity price risk; cash flow/liquidity risk and political risk / uncertainties. Comparing to the previous type of study, which the 'Aon' did in the 2011, 'Top 10 in the World' risks have changed. In 'Top 10 in the World' newly entered risk political risk, but technology failure risk quit this top. Business interruption risk decreases from position five to seven. Failure to innovate/meet customer needs risk, failure to attract risk and cash flow/ liquidity risk increase of one position.

In period from year 2012 till year 2013 entrepreneurs need to perform preparatory works for introduction of the euro (new national currency) in the country (changing lat (LVL) to euro (EUR)). For enterprises introduction of the euro mean adopting their information technology (IT) and accounting systems. According to the "Law on Introduction of Euro" (Likumi, 2013) entrepreneurs will have to ensure compliance with the set requirements dual circulation period of the LVL and the EUR, compulsory period of dual price display.

According to "Preparing Your Company to Work in Euro" (Ministry of Finance of the Republic of Latvia, 2013), the steps of preparing for introduction of the euro are assess the expected impact of the change of currency on its operations, define a strategy, appoint person to coordinate the change-over preparations, develop an action plan with clear tasks and plan financial resources. Great attention shall be paid to adaptation of accounting and financial management, as well as IT systems, management of cash and information and training of staff The introduction of the euro affects all IT systems that operate with currency units, payroll, management information and ticketing systems, purchasing software, stock-control applications as well as systems processing financial information, such as cash registers. For customers could be made aware of the conversion rate by being shown examples (e.g. price tables for basic products and leaflets). It begins to actual the risk of introduction of IT systems (E11) and the risk of training of staff (F17).

As well as there are the risk of insufficiency of credit resources (E6), the risk of damage to reputation (E10), the risk of insufficiency of own capital (F6), the risk of insufficiency of current assets (F8), the risk of marketing (F15) increase. The introduction of the euro in Latvia will have no significant impact on prices, because price monitoring is supervised by the Ministry of Economy as trade enterprises and services providers will have to specify the prices in LVL and the EUR for 3 months before and 6 months after the introduction of the euro. Accordingly there are the risk of increment of taxes (E2) and the risk of inflation (F4) decrease.

Based on the above mentioned the authors have created classification of Latvian accommodation and food services sector's economic and financial risks in the period from year 2012 till year 2013, presented in Table 4. The authors have classified risks by fields of origin - the external risks and the internal risks. The economic risks are external risks. The financial risks are external and internal risks.

Table 4. Classification of Latvian accommodation and food services sector economic and financial risks in the period from year 2012 till year 2013

The economic risks	Type of risk	The financial risks	Type of risk
E1 - The risk of legislative changes	E	F4 - The risk of inflation	E
E2 - The risk of increment of taxes	E	F5 - The risk of financial instability	I
E3 - The risk of financial instability of suppliers	E	F6 - The risk of insufficiency of own capital	I
E4 - The risk of demand's instability	E	F7 - The risk of investment (the new project planning)	I
E5 - The risk of reduction in client's solvency	E	F8 - The risk of insufficiency of current assets	E
E6 - The risk of insufficiency of credit resources	E	F9 - The risk of debtors	E
E7 - The risk of increasing competition	E	F10 - The risk of turnover of stocks	I
E8 - The risk of the emergence of alternative services	E	F11- The risk of liquidity	I
E9 - The risk of increment in raw materials prices	E	F12 - The risk of profitability of turnover	I
E10 - The risk of damage to reputation	E	F13 - The risk of profitability of assets	I
E11 - The risk of introduction of IT systems	E	F14 - The risk of profitability of equity (own) capital	I
The financial risks		F15 - The risk of marketing	I
F1 - The risk of unpaid credit	E	F16 - The risk of insolvency (bankruptcy)	I
F2 - The risk of increment of interest	E	F17 - The risk of training of staff	I
F3 - The risk of monetary	E		

Source: The authors have created

Notes: The symbols are adopted for the Table 4: E - The external risk; I - the internal risk.

From year 2007 till year 2012 the authors studied medium financial indexes of accommodation and food services sector's enterprises in Latvia. Based on economic analysis of accommodation and food services sector's enterprises medium financial indexes is created risk level dynamics assessment by using special coefficient method, presented in Table 5. The indexes (ratios) of the special coefficient method (Pettere and Voronova, 2003) are liquidity, profitability, solvency and activity. In the period from year 2008 till 2012 Latvian accommodation and food services sector's enterprises operated with debt. From year 2009 equity (own) capital decreases and the lowest value it achieves in year 2011.

In the period from year 2007 till year 2012 the current ratio decreases and as a result the risk of liquidity (F11) increases. Inventory turnover ratio increases and as a result the risk of turnover of inventory (stocks) (F10) decreases. Average collection period (days) decreases and as a result the risk of debtors (F9) decreases. Return on assets (ROA) decreases and the risk of profitability of assets (F13) increases. Return on equity (ROE) decreases and the risk of profitability of equity (own) capital (F14) increases. Debt to equity ratio increases and as a result the risk of financial instability (F5) increases.

Table 5. Assessment of Latvian accommodation and food services sector risks dynamic by using the special coefficient method in the period from year 2007 till year 2012

Title of ratio Type of risk	D	2007	2008	2009	2010	2011	2012
Liquidity ratio							
The current ratio (F11) - The risk of liquidity	$\frac{D_d}{D_{in}}$	0.96	0.74	0.56	0.55	0.54	0.60
Activity ratios							
Inventory turnover ratio (F10) -The risk of turnover of stocks (inventory)	$\frac{D_{in}}{D_d}$	19.70	16.30	13.26	16.67	17.31	20.06
Average collection period (days) (F9)-The risk of debtors	$\frac{D_d}{D_d}$	49	65	82	63	56	45
Profitability ratios							
Return on assets (ROA) (F13) -The risk of profitability of assets	$\frac{D_d}{D_{in}}$	0.05	-0.04	-0.09	-0.06	-0.06	-0.02
Return on equity (ROE) (F14) -The risk of profitability of equity (own) capital	$\frac{D_d}{D_{in}}$	25.60	-23.70	-69.99	-83.77	-169.30	-79.10
Solvency ratio							
Debt to equity ratio (F5)-The risk of financial instability	$\frac{D_{in}}{D_{in}}$	3.98	5.09	10.03	14.89	252.56	16.51

Source: The authors have created from Data of Central Statistical Bureau of Latvia

Notes: The symbols are adopted for the Table 5: D - The symbol of risk dynamic or ratio dynamic: - D_{in} level of risk or ratio increases; D_d level of risk or ratio decreases

For quantity assessment economic and financial risks of Latvian accommodation and food services sector the authors have created risks matrix, shown in Table 6. Most of the authors classified Latvian accommodation and food services sector's economic and financial risks sizes are from medium risk till maximum acceptable risk. The probability of risks realization is from 0.2 till 0.6. The important sector's economic risks, which may lead major losses, are the risk of damage to reputation (E10), the risk of increment of taxes (E2) and the risk of reduction in client's solvency (E5). The important sector's financial risks, which may lead major losses, are the risk of financial instability (F5), the risk of debtors (F9), the risk of monetary (F3), the risk of insolvency (bankruptcy) (F16) and the risk of unpaid credit (F1).

For quantity assessment technological process risks of accommodation (hotel) and food services the authors have created risks matrix, shown in Table 7. The most of the authors classified technological process risks sizes are from medium risk till maximum acceptable risk.

Table 6. Assessment of Latvian accommodation and food services sector economic and financial risks in the period from year 2012 till year 2013 (a_i is scale of risk size)

0.6-0.8					F7					
0.4-0.6			E3	E15	E1 F10	E4 E6 F6 F13	F1 F8	E10 F5 F9		
0.2-0.4			E7	E8 F12 F14 F17	E9 E11 F2 F4	F11	E2 E5	F3 F16		
0.0-0.2										
Scale a_i	1	2	3	4	5	6	7	8	9	10
Probability of Realization	Small Risk		Medium Risk		Big Risk		Maximum Acceptable Risk		Critical Risk	
Characteristics of the size of risk (losses)										

Source: The authors have created

The probability of risks realization is from 0.2 till 0.6. The important accommodation (hotel) service's technological process risks, which may lead major losses, are the risk of security system (V3), the risk of client's payment (V7), the risk of reservation (V1), the risk of ordering food services (V4) and the risk of accounting (V8). As well as the food service's technological process risks, which may lead to major losses, are the risk of HACCP system (D2), the risk of employees' hygiene (D4) and the risk of food preparation (D5), the risk of choice of food assortment (D1) and the risk of food products storage (D6).

Table 7. Assessment of accommodation (hotel) and food services technological process risks

0.6-0.8										
0.4-0.6			V2	V5	V4 D1	V1 D5	D4	D2		
0.2-0.4			D3	V6 D7	D6	V8	V7		V3	
0.0-0.2										
Scale a_i	1	2	3	4	5	6	7	8	9	10
Probability of Realization	Small Risk		Medium Risk		Big Risk		Maximum Acceptable Risk		Critical Risk	
Characteristics of the size of risk (losses)										

Source: The authors have created

The authors have used the experts' method for economic risks assessment in the period from year 2012 till year 2013. Wherewith the authors offer the economic risks (n = 7) as well as experts assessment of the risks comparing in pairs. The authors establishes the consensus degree of the experts' opinion required level (V=0.61) by formula (2). The check box of common matrix shows how many experts have given a preference for a particular risk, shown in Table 8. The major risks according to the assessment of experts are the risk of reduction in client's solvency (E5), the risk of increment of taxes (E2), the risk of increasing competition (E7), the risk of insufficiency of credit resources (E6).

Table 8. Common matrix of the experts assessment

X_f / X_i	E1	E2	E3	E4	E5	E6	E7	$\sum Y_{if}$
E1	Y_{if}	0	1	1	0	1	0	3
E2	5	Y_{if}	4	4	1	4	3	21
E3	4	1	Y_{if}	1	0	1	1	8
E4	4	1	4	Y_{if}	0	4	0	13
E5	5	4	5	5	Y_{if}	4	4	27
E6	4	1	4	1	1	Y_{if}	3	14
E7	5	2	4	5	1	2	Y_{if}	19

Source: The authors have created

The authors have offered rating of external and internal risks by using the risks ranking method, shown in Table 9 and Table 10. The authors have divided external and internal risks into several groups of risks, shown in Figure 1. For risks assessment are used formulas (3), (4) and (5).

Table 9. Latvian accommodation and food services sector external risks ranking by their impact on enterprises development

External risks	w_i - **weighting coefficient**	a_i - **risk size**	$w_i \cdot a_i$
Group of risks R_1			5.95
E10 - The risk of damage to reputation	22/132	8	1.33
E4 - The risk of demand's instability	20/132	6	0.91
E1 - The risk of legislative changes	18/132	5	0.68
E6 - The risk of insufficiency of credit resources	16/132	6	0.73
E2 - The risk of increment of taxes	14/132	7	0.74
E5 - The risk of reduction in client's solvency	12/132	7	0.64
E3 - The risk of financial instability of suppliers	10/132	3	0.23
E9 - The risk of increment in raw materials prices	8/132	5	0.30
E11 - The risk of introduction of IT systems	6/132	5	0.23
E8 - The risk of the emergence of alternative services	4/132	4	0.12
E7 - The risk of increasing competition	2/132	3	0.05
Group of risks R_2			7.05
F1 - The risk of unpaid credit	12/42	7	2.00
F8 - The risk of insufficiency of current assets	10/42	7	1.67
F9 - The risk of debtors	8/42	8	1.52
F3 - The risk of monetary	6/42	8	1.14
F2 - The risk of increment of interest	4/42	5	0.48
F4 - The risk of inflation	2/42	5	0.24

Source: The authors have created

The authors have calculated the external risks R_{EX} as following.

$$R_{EX} = 0.5 \times (R_1 + R_2) = 0.5 \times (5.95 + 7.05) = 6.50$$

The authors have calculated the internal risks R_{IN} as following:

$$R_{IN} = \frac{1}{3} \times (R_3 + R_4 + R_5) = \frac{1}{3} \times (6.06 + 6.11 + 6.14) = 6.10$$

Values of R_{EX} and R_{IN} are almost equal (difference is 6 %), so both risks have an important impact on the Latvian accommodation and food services sector enterprises' development.

Table 10. Latvian accommodation and food services sector internal risks ranking by their impact on enterprises development

Internal risks	w_i - weighting coefficient	a_i - risk size	$w_i * a_i$
Group of risks R_3			6.06
F5 - The risk of financial instability	22/132	8	1.33
F16 - The risk of insolvency (bankruptcy)	20/132	8	1.21
F7 - The risk of investment (the new project planning)	18/132	5	0.68
F6 - The risk of insufficiency of own capital	16/132	6	0.73
F10 - The risk of turnover of stocks	14/132	5	0.53
F13 - The risk of profitability of assets	12/132	6	0.55
F15 - The risk of marketing	10/132	4	0.30
F11- The risk of liquidity	8/132	6	0.36
F12 - The risk of profitability of turnover	6/132	4	0.18
F14 - The risk of profitability of equity (own) capital	4/132	4	0.12
F17 - The risk of training of staff	2/132	4	0.06
Group of risks R_4			6.11
V3. The risk of security system	16/72	9	2.00
V7. The risk of client's payment	14/72	7	1.36
V4. The risk of ordering food services	12/72	5	0.83
V1. The risk of reservation	10/72	6	0.83
V5. The risk of room service	8/72	4	0.44
V2.The risk of registration	6/72	3	0.25
V6. The risk of ordering additional services	4/72	4	0.22
V8. The risk of accounting	2/72	6	0.17
Group of risks R_5			6.14
D2. The risk of HACCP system	14/56	8	2.00
D5. The risk of food preparation	12/56	6	1.29
D4.The risk of employees' hygiene	10/56	7	1.25
D1. The risk of choice of food assortment	8/56	5	0.71
D7. The risk of client's service	6/56	4	0.43
D6. The risk of food products storage	4/56	5	0.36
D3. The risk of acceptance of raw materials	2/56	3	0.11

Source: The authors have created

The authors have carried out the questionnaire of representative small and medium-sized enterprises about the economic and financial risks impact on enterprises' development in Latvia. Representatives of enterprises have assessed economical and financial risks possible amount of losses. From enterprises which participated in questionnaire there were medium-sized enterprises (49%), small enterprises (40%) and micro enterprises (11%). The authors have created classification of Latvian services sectors economic and financial risks in the period from 2011 to 2012. Those risks have been included in questionnaire (Jansone and Voronova, 2014).

Questionnaire participants' assessed economic risks and the biggest losses is possible from impact of these risks – the risk of reduction in client's solvency (E5), the risk of increment

of taxes (E2) and the risk of increasing competition (E7) the risk of insufficiency of credit resources (E6), the risk of damage to reputation (E10). Questionnaire participants' assessed financial risks and the biggest losses is possible from impact of these risks – the risk of debtors (F9), the risk of insufficiency of current assets (F8), the risk of inflation (F4) the risk of unpaid credit (F1) and the risk of monetary (F3) the risk of increment of interest (F2).

6. Conclusions

For assessment of risks of the Latvian accommodation and food services sector the authors have used their own created model of enterprises' risks identification, classification and assessment. In model are used risks ranking method, experts' method and special coefficient method. The authors describing specific risks have shown possible causes of losses.

The authors have carried out classification of accommodation (hotel) and food services technological processes risks. The important accommodation (hotel) service's technological process risks, which may lead major losses, are the risk of security system (V3), the risk of client's payment (V7), the risk of reservation (V1), the risk of ordering food services (V4) and the risk of accounting (V8). The important food services technological process risks are the risk of HACCP system (D2), the risk of employees' hygiene (D4) and the risk of food preparation (D5), the risk of choice of food assortment (D1) and the risk of food products storage (D6).

The authors have created classification of Latvian accommodation and food services sector's economic and financial risks in the period from year 2012 till year 2013. The authors have classified risks, by fields of their origins, into external risks and internal risks. The authors have offered rating of external and internal risks by using the risks ranking method. Values of external and internal risks are almost equal (difference is 6%), so both risks have an important impact on the Latvian accommodation and food services sector enterprises' development.

In the period from year 2007 till year 2012 the risks assessment by using the special coefficient method demonstrates that the risk of financial instability (F5) the risk of liquidity (F11), the risk of profitability of assets (F13) and the risk of profitability of equity (own) capital (F14) increase but the risk of debtors (F9) and the risk of turnover of stocks (F10) decrease.

By following changes in external environment entrepreneurs can determined dynamics of the economic risks and their impact on the enterprise's commercial activities. With changes in the dynamics of the economic risks entrepreneurs may change their commercial activities strategy. Based on the changes in external environment, entrepreneurs account for the strengths and reduce the weaknesses of enterprise's internal environment. Entrepreneurs should take actions to reduce technological risks, enhancing and improving the stages of the accommodation (hotel) and food services technological processes.

The authors have recommended enterprises using risks matrixes in order to assess different types of risks. For risks quantity assessment enterprises can use risks matrixes, which arrange risks by their possible amount of losses. According to each type of risk it is possible to assess its probability of realisation. The authors recommend to enterprises managers to use the experts' method for risks assessment. The Latvian accommodation and food services sector's enterprises can use the authors created model of risks identification, classification and assessment to produce their own risk management systems. The authors have recommended enterprises assessing the risk of financial instability (F5) and analysing this risk impact on small and medium-sized enterprises' development. For enterprises it is important to extend commercial activity and to open a new structural subdivision. Risks matrix can use to choose enterprise's strategy of risk management and this strategy is developed by analysing zones of risk level.

References

Alexander, C. and Marshall, M.I., 2006. The risk matrix: Illustrating the importance of risk management strategies. *Journal of Extension*, 44(2), [online] Available at: <http://www.joe.org /joe/2006april/tt1.shtml>.

Aon, 2013. Global risk management survey, 2013. [pdf] Available at: <http://www.aon.com/2013 GlobalRisk/2013-Global-Risk-Management-Survey-updated-05-01-2013.pdf>.

Baumane I. and Vedina R., 2011. Capacities and competencies as sources of competitive advantage: The case study of Latvian hotels. *Research Journal - Review of International Comparative Management,* 12(2), pp.301-318.

Data of Central Statistical Bureau of Latvia, 2014. [online]. Available at: <http://www.csb.gov.lv>.

Dehtjare J., 2008. *The development of hotel services market in Latvia*. Riga: RTU.

Fishburn, P., 1970. *Utility theory for decision making*. New York: Wiley.

Henschel, T., 2010. Typology of risk management practices: An empirical investigation into German SMEs. *Journal of International Business and Economic Affairs*, 9(3), pp.1-28.

Hillson, D. and Murray-Webster, R., 2007. *Understanding and managing risk attitude*. Burlington VT: Gower, p.180.

ISO, 2009. Risk management — Principles and guidelines: International standard ISO31000. [online] Available at: <http://www.iso.org/iso/catalogue_detail?csnumber=43170>

Jansone I. and Voronova I., 2010. Assessment tools of Latvian trade sector enterprises financial stability. In: *Стратегия антикризисного управления экономическим развитием Российской Федерации* [*Strategy of crisis management and economic development of the Russian Federation*], Russia, Penza, 7 November - 7 October, 2010, pp.18-21.

Jansone, I. and Voronova, I., 2012. External and internal risks impact on accommodation and food services sector of Latvia. *Scientific Journal of RTU <Series 3: Economics and Business>,* 22, pp.80-87.

Jansone, I. and Voronova, I., 2013. Risks assessment of trade services sector: The case of Latvia. In: *3rd International Scientific Conference "Whither Our Economies-2013".* Lithuania, Vilnius, 24-25 October 2013, Vilnius: Mykolas Romeris University, pp.161-169.

Jansone, I. and Voronova, I., 2014. Risks matrixes - Risks assessment tools of small and medium-sized enterprises: The case of Latvia. *Journal of Modern Accounting and Auditing*, 10(5), pp.575-582.

Jansone, I., Nespors, V., and Voronova, I., 2010. Impact of financial and economic risks to extension of food retail industry of Latvia. *Scientific Journal of RTU <Series 3: Economics and Business>*, 20, pp.59-64.

Komkova, J., 2008. *Risk management models for Latvian non-financial sector enterprises*. Riga: RTU.

Korombel, A., 2012. Enterprise risk management in practice of Polish small businesses – Own research results. In: *7th International Scientific Conference "Business and Management 2012"*. Lithuania, Vilnius, 10-11 May 2012, pp.1137-1143.

Kotschevar, L.H., 2007. *Presenting service: The ultimate guide for the foodservice professional*. New York: John Wiley & Sons, p.255.

Likumi, 2013. Euro ieviešanas kārtības likums [Law on introduction of euro] [online]. Available at: <http://likumi.lv/doc.php?id=254741>.

Loiko, V. and Jefanova, H., 2008. Kolicestvennije modeli i metodiki ocenki riskob v agropromislenkih integrirovannix proizvodsvennix sistemax. [Quantitative models and methods of risk assessment in agro-integrated production systems]. *Scientific Journal of Kuban State Agrarian University*, 40(6), pp.105-124.

Markovics, Z., 2009. *Ekspertu novērtējumu metodes* [*Experts' evaluation methods*]. Riga: RTU.

Melngaile, A., 2008. Sabiedriskās ēdināšanas uzņēmumu ražošanas organizācija [*Catering industry organization*]. Riga: LU Akadēmiskais apgāds.

Millere, I., 2009. *The acitivity processes in catering businesses in Latvia's regions*. Jelgava: LUA.

Ministry of Finance of the Republic of Latvia, 2013. Preparing your company to work in Euro. [online] Available at: <http://www.eiro.lv/en/what-should-businesses-know-/preparing-your-company-to-work-in-euro>.

Pettere, G. and Voronova, I., 2003. *Riski uzņēmējdarbībā un to vadība* [*The risks in business and risks management*]. Riga: Apgāds Rasa ABC.

Rutherford, D.G. and O'Fallon, M.J., 2007. *Hotel management and operations.* New York: John Wiley & Sons, p.478.

Rutkauskas, A., 2008. On the sustainability of regional competitiveness development considering risk. *Technological and Economic Development of Economy*, 14(1), pp.89-99. http://dx.doi.org/10.3846/2029-0187.2008.14.89-99

Sala, J., 2006. *Marketing v obschestvennom pitanii* [*Marketing in catering*]. Moskva: Finansy' i statistika.

Urban, W., 2009. Service quality gaps and their role in service enterprises development. *Research Journal-Technological and Economic Development of Economy*, 15(4), pp.631.-645.

Vincent, H., 2010. The risk of using risk matrix in assessing safety risk. [pdf] Available at: <http://www.hkarms.org/web_resources/20101116_risk_matrix_hkieb_print.pdf>.

Voronova, I., 2008. Methods of analysis and estimation of risks at the enterprises of non-financial sphere of Latvia. *Journal of Business Economics and Management,* 9(4), pp.319-326. http://dx.doi.org/10.3846/1611-1699.2008.9.319-326

Voronova, I., 2012. Financial risks: Cases of non-financial enterprises. In: J. Emblemsvag, ed. *Risk management for the future – Theory and cases*. Croatia: InTech, pp.435-466. http://dx.doi.org/10.5772/31445

Zimecs, A., and Ketners, K., 2010. Entrepreneurial decision substantiation methodology and it impact on risk management. *Scientific Journal of RTU <Series 3: Economics and Business>*, 20, pp.157-163.

Zimecs, A., and Ketners, K., 2009. Significance of the risk management in activity of the small and medium enterprises. *Scientific Journal of RTU <Series 3: Economics and Business>*, 19, pp.137-147.