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ESTIMATING RISK TO THE EFFICIENT FUNCTIONING OF A COMPANY

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Abstract

In the current economic conditions, the risk management process plays a very important role, both in units of the public finance sector and in the private sector. Efficient identification and analysis of risk, allows you to take appropriate steps in a timely manner and introduce control mechanisms to protect your company from financial losses. In this process, the highest management and its involvement play a very important role. All employees of a given company should be involved in the process of risk estimation, as they have an insight into what is being done in the company on a daily basis. They should report any threats on a regular basis. They should have confidence in their subordinates that they will not be punished for indicating irregularities. Efficient risk management means that top management can decide on risk acceptance, risk avoidance, risk mitigation or risk transfer. The study was aimed at identifying potential risks in the project, which assumed the start of business in the area of consulting and training. The risks identified helped to estimate the residual risk value and design control mechanisms that adjusted this risk to an acceptable level of risk. The level of acceptable risk was the starting point to decide whether to implement or withdraw from the project. The level of residual risk coincided with the risk acceptable to the future owner. In view of the above, a decision was made to register the company and start operations.

Keywords: Risk, risk management, enterprise, process, risk map, level of risk

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INTRODUCTION

The risk, i.e. the possibility of an event that will affect the implementation of the assumed venture, is inscribed in every area of human life. It constitutes its inseparable element. It is important to manage it properly. Risk management is a process that focuses on managing current projects that will influence the future events. It is an indispensable process to achieve the set goals. It assumes taking appropriate remedial mechanisms, thanks to which the effectiveness of the enterprise increases. Proper risk management requires adjusting it to the existing situation in the unit, taking into account its size, structure, property and personnel resources as well as the experience of top management in the field of business management (Kowalczyk, 2011: 27). In efficient risk management, the procedures that often constitute the process of the process are helpful (Pieśniak, 2017: 105).Running your own business is directly related to risk taking and estimation. The natural reaction of most people is protection against threats. This approach has good and bad sides. The advantage of avoiding the risk is predictability, while the downside - limiting the possibilities, because whoever does not risk does not drink champagne. In public sector units, we are obliged to minimize, or even reduce, the risk. The situation is completely different in the private sector, where the level of risk is determined by risk appetite. The risk can be managed through a process or an audit. Taking into account many factors, you may be tempted to say that process management can be a better solution. The article presents the research carried out in the Training and Advisory Firm called "JAK", for which a risk analysis was carried out. The risk analysis was created before the start of operations and was of assurance nature. The company "JAK" performs orders for higher education institutions, among others University of Economics, institutes and enterprises (which can be confirmed by concluded contracts). The services are provided on the territory of the whole country, in the fourth quarter of 2018, talks will be made to provide services in Germany. All processes occurring in the company were examined and all identified risks were estimated.

REVIEW OF THE LITERATURE

The literature review method is a very important element in solving the research problem. Without this, it is difficult to understand the essence of the subject under investigation. Thanks to the review of literature, we can answer the question of what are important issues related to a given field of science. An important role is also played in the presentation of the relationship between theory and practice and the presentation of the main theories concerning the analyzed problem. The stages of creating a literature review are important, especially the formulation of the problem, collection, assessment, analysis and interpretation of data and an indication of the direction of further research (Zdonek, Hysa, Zdonek 2016: 521-525).In the field of broadly

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understood risk management, that is all actions undertaken in the field of risk identification, risk analysis and risk response, in order to eliminate or reduce the level of risk, there are many publications both Polish and foreign. Among the most important publications that present a comprehensive approach to the risk-related research problem, one should include the publication of I. Staniec, *Determinants of the effectiveness of risk management in organizations*, or R. Walczak, *Selected methods of risk analysis and assessment*. Numerous articles dealing with risk analysis can be found in the *Research Papers of Wroclaw University of Economics, University of Szczecin Scientific Papers, Scientific Notebooks of the Silesian University of Technology, Scientific Notebooks of the Częstochowa University of Technology, University of Szczecin Scientific Notebooks, Cracow Review of Economics and Management*. Similar issues can be found in the Monthly *Issues in Quality* or *Organization Overview*.

METHOD

During the risk analysis for the Training and Advisory Company, a process-based approach was chosen, divided into the following stages:

1. Identification.
2. Risk analysis.
3. Planning the risk response.
4. Risk monitoring and control.

In order to analyze and assess the risks, they had to be identified. Identification occurred as a result of risk identification techniques such as brainstorming and interviews. Six people participated in the brainstorming. All persons are auditors or controllers who deal with identifying and assessing risk on a daily basis. The group of experts included people working full-time, running a business or being active trainers and lecturers. This selection of experts provided a broad view of the risk. The risk analysis was carried out as a whole, so we are not dealing with the sample. In this group, interviews were also conducted, which were of the nature of an exchange of views / experiences, the so-called indication of good practices in the area of consulting and training. The group of experts was made up of people who work together on a daily basis. At this stage, a list was created that contained the main factors that could negatively affect the company's goals. The analysis was performed using a mixed method, i.e. quantitative and qualitative methods were used. The quantitative method consists of assessing the probability and the effects of the risk by giving them specific parameters. The effects can be described by assessing the results of events and expressed in different categories (monetary, operational, technical). The advantages of quantitative methods are the objectivity of results, thanks to which they can be compared and the results have a financial and percentage

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dimension. The qualitative method is based on an individual risk assessment based on experience and good practices. This method uses subjective measures and evaluations such as descriptive values of levels (low, medium, high). The benefits of the quality methods are:

- no need to quantify the effects and likelihood of occurrence of hazards,
- an indication of the general risk areas for which attention is needed,
- applicable in the absence of specific information and quantitative data or resources.

The risk analysis was made by estimating the probability and the effect without time, as it is of little importance in this industry. If the analysis was an exercise for the military or agriculture, it would be difficult to omit the timeline. A table with a three-point odd scale was used to calculate the probability.

Table 1: Probability table

Number of points	**Probability of occurrence of risk**	
	Description	**Probability**
3	Large (virtually certain event during the year / quarter)	70-100%
2	Average (an event occurring in the period of 2 - 4 years)	31-69%
1	Small (event occurring no more than once every 5 years)	0-30%

Source: Authors

The effect is also estimated on the basis of tables with a three-point odd scale as below.

Table 2: Impact table

Number of points	**Description**	**CRITERIA**					
		Financial	**Organizational**	**Health protection and safety**	**Compliance with regulations**	**Continuity of action**	**Reputation**
3	Big (Huge)	Above 50.000 zł	Long-term disruptions in business	Losing life	High risk of court proceedings and the imposition of fines, impediments to business	Incidents causing disruptions in the processes, loss of information possible, difficult to recover	Information in nationwide media

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Table 2...

2	Average (Medium)	Above 10.000 zł – 50.000 zł	Disruptions in business	Serious injury	The average threat of court proceedings and the imposition of fines, impediments to business	Minor and short-term interference without any business impact	Information in regional media
1	Small	till 10 tys. PLN	Short-term disruptions in operations	Small damage	Small threat of court proceedings and the imposition of fines, impediments to business	Smooth running, no loss of information	Information in local media

Source: Authors

It is here to explain why the decision was made on a three-point scale, what are its disadvantages, what are its advantages. On such a small scale it was decided due to the fact that the analysis was carried out for the company's project, namely, the analysis was of the nature ensuring that the start-up was justified and the financial and time resources invested would allow the company to continue its operations, achieve the intended profits and take the appropriate market position. The advantage of this scale is undoubtedly the simplicity of implementation, and the results are easy to analyze. The disadvantage, however, is the small spread, which significantly limits the determination of the level of risk and the so-called center. This drawback is most evident on the five-point scale, where, in the absence of certainty in the assessment, we have a tendency to choose the middle mark. It was assumed that after the start of operations and the end of the 12-month period of the company's operation, the risk analysis will be carried out again, the scale will be odd, six-point. The advantage of this scale is the lack of a measure and a reference to the school assessment system. The assurance analysis was performed based on the residual risk assessment. At this point, it was also assumed that the next analysis will be based on inherent and residual risks in order to demonstrate the strength of the control mechanisms. In the view of the above, it is reasonable to clarify the definition of individual risks at this point: Primary and inherent risk is a risk occurring in the absence of management actions to influence the probability of risk occurrence and its effects. Inherent risk is a risk occurring before applying control mechanisms. In contrast, residual risk is the risk that remains after management takes actions to minimize the likelihood of adverse events occurring

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and to minimize the consequences if a given risk materializes. Residual risk - the risk that remains after the introduction of control mechanisms. The risk (unreliability) of control is the risk that the existing control mechanisms will not work in the intended manner.

The audit risk is connected with the possibility of drawing wrong conclusions by the auditor (Mazurek, Knedler, 2010: 111). The hazard matrix was used to perform the analysis (figure 1).

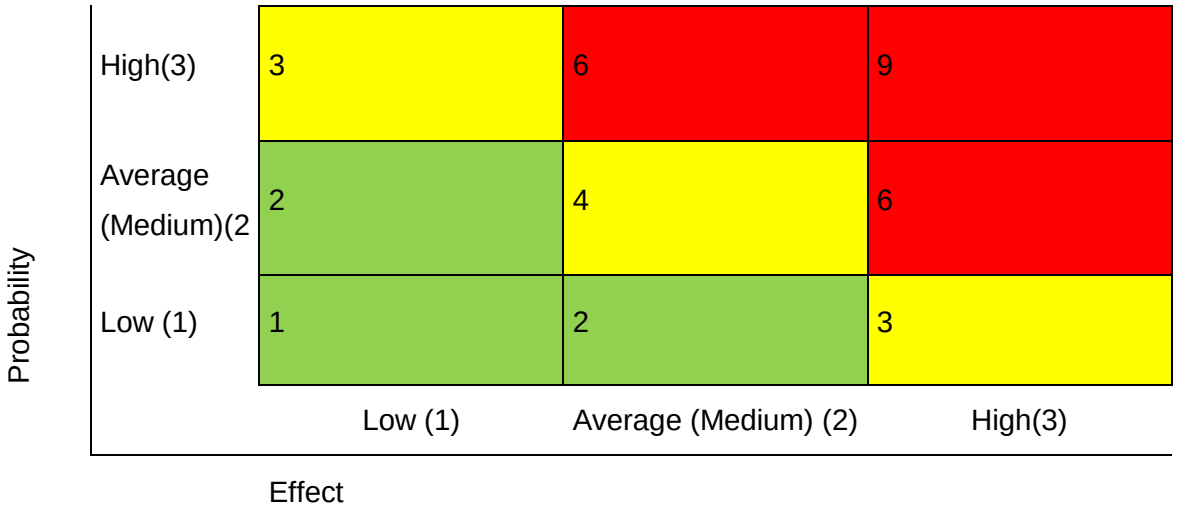

Figure 1: Threat Matrix

The risk analysis showed what risks occur in individual processes and what is the value of individual risks. The analysis carried out in this way allows for planning the reaction to risk. There are four basic reactions:

1. Avoidance - the strategy consists in modifying the project plan so as to eliminate a specific risk or try to protect the project from the effects of the threat.
2. Transfer - the reaction strategy does not eliminate the risk, because its aim is to transfer the responsibility to another entity.
3. Mitigation - this solution is based on minimizing to an acceptable level of probability and consequence of occurrence of risk. The most important step is to take action early so as not to repair the damage after the loss. The strategy is useful when the risk cannot be fully predicted.
4. Acceptance - this is a method where there is no way to reduce or eliminate the risk (Sławińska-Tomtała 2010: 26).

The above reactions have both advantages and disadvantages. However, they cause that we do not use a fatal reaction, which is not taking any action, until the risk materializes. As mentioned earlier, the risk is inevitable. In management, however, we are obliged to minimize its

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negative effects, and even attempt to turn threats to opportunities. However, one should remember about the economic aspect, so the costs of minimizing or eliminating the risk cannot be higher than the cost of materializing the risk. The exceptions are processes such as the health and safety process or the fire safety, where we are dealing with human health and life and in these processes there is no question of excessive investing in control mechanisms, because the well-being of employees and third parties is invaluable.

RESULTS

As a result of the analysis, the identified risks were assigned tothe individual processes. In the Training and Advisory Firm, there will be implemented, among others such processes as:

1. The market research process.
2. The process of acquiring contractors.
3. The shopping process.
4. The sale process.
5. The process of implementing the consulting service.
6. The process of educational service implementation.
7. The process of performing the sporting activity service.
8. Financial and accounting process.
9. Health and safety process, fire protection and Environmental Protection.

For the purposes of this article, three selected processes will be presented. Presentation of the results consists in presenting for each selected process such documents as: a card of risks in a given process, a table of values of residual risks in a given process and a matrix for a given process.

Market research process

In process 1 - Market research, the following risks were identified:

R 1.1. The risk of incorrect tests.
R 1.2. The risk of incorrect analysis.
R 1.3. The risk of underestimating the service.
R 1.4. Risk of overestimation of the service.
R 1.5. The risk of competition.
R 1.6. Risk of changes in the external environment.
R 1.7. The risk of data leakage.
R 1.8. Risk of failure.
R 1.9. The risk of abuse.

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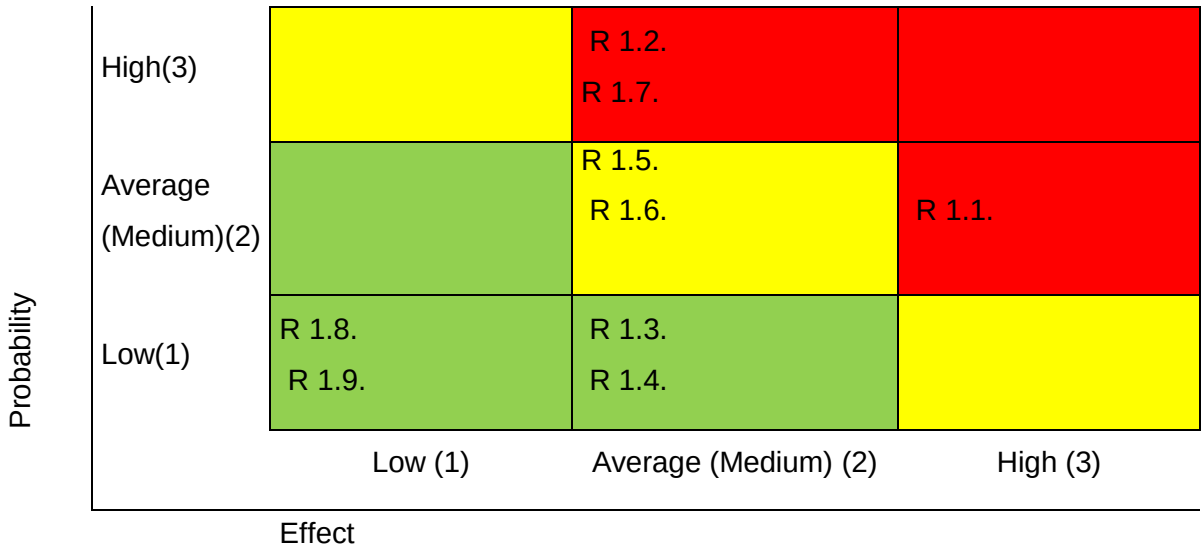
Lp.	Process / Risk		P	S	P*S
P1	**MARKET RESEARCH**				
	R 1.1.	Erroneous research	3	2	6
	R 1.2.	Erroneous analysis	2	3	6
	R 1.3.	Service underestimation	2	1	2
	R 1.4.	Service revaluation	2	1	2
	R 1.5.	Competition	2	2	4
	R 1.6.	Changes of the external environment	2	2	4
	R 1.7.	Data leak	2	3	6
	R 1.8.	Accident	1	1	1
	R 1.9.	Abuses	1	1	1
					32



The process of educational service delivery

In the process No. 6 - Implementation of the educational service identified the following risks:

R 6.1. The risk of selling an educational service inconsistent with the order.

R 6.2. The risk of inability to conduct classes in accordance with the offer.

R 6.3. Risk of diversity of the level of knowledge of service recipients.

R 6.4. The risk of absence of the recipient.

R 6.5. Risk of absence of a trainer.

R 6.6. The risk of a lack of housing resources.

R 6.7. The risk of lack of hardware resources.

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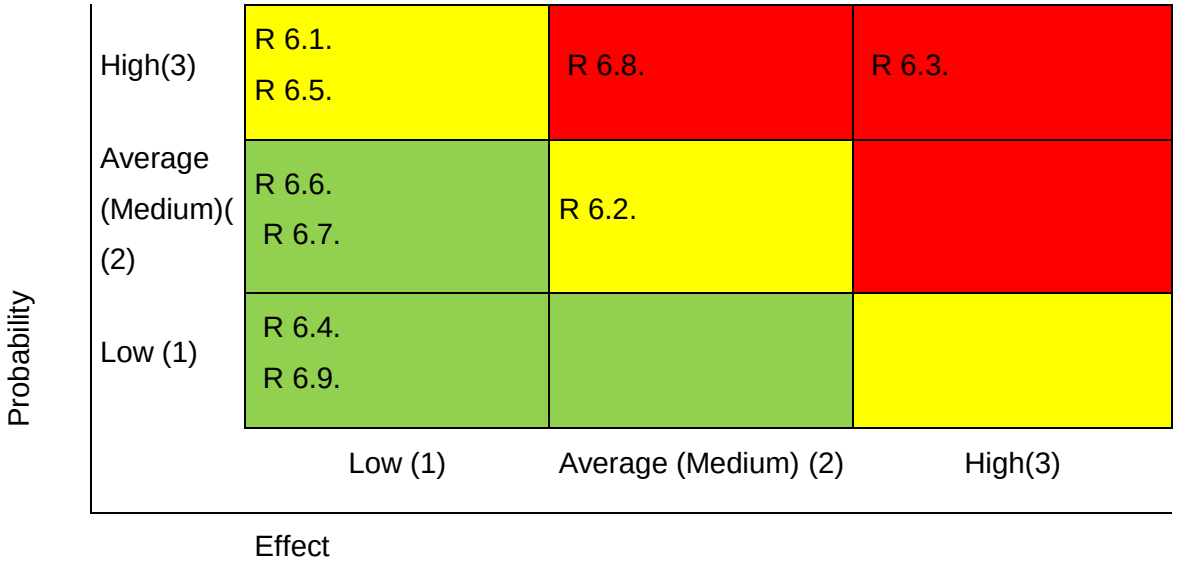
R 6.8. Risk of failure.

R 6.9. The risk of abuse.

Lp.	Process / Risk		P	S	P*S
P1	RESERVATION OF EDUCATIONAL SERVICE				
	R 6.1.	Sale of an educational service not in line with the order	1	3	3
	R 6.2.	Impossibility of conducting classes according to the offer	2	2	4
	R 6.3.	Diversity of the level of knowledge of service recipients	3	3	9
	R 6.4.	Absence of the service recipient	1	1	1
	R 6.5.	Absence of the trainer	1	3	3
	R 6.6.	Lack of housing resources	1	2	2
	R 6.7.	No hardware resources	1	2	2
	R 6.8.	Accident	2	3	6
	R 6.9.	Abuses	1	1	1
					31



Financial and accounting process

In process 9 - Financial and accounting, the following risks were identified:

R 9.1. The risk of not invoicing the provided service.

R 9.2. The risk of not receiving payment for the service provided.

R 9.3. The risk of incorrect recognition of revenues and expenses in accounting books.

R 9.4. The risk of financial losses.

R 9.5. The risk of contractual penalties.

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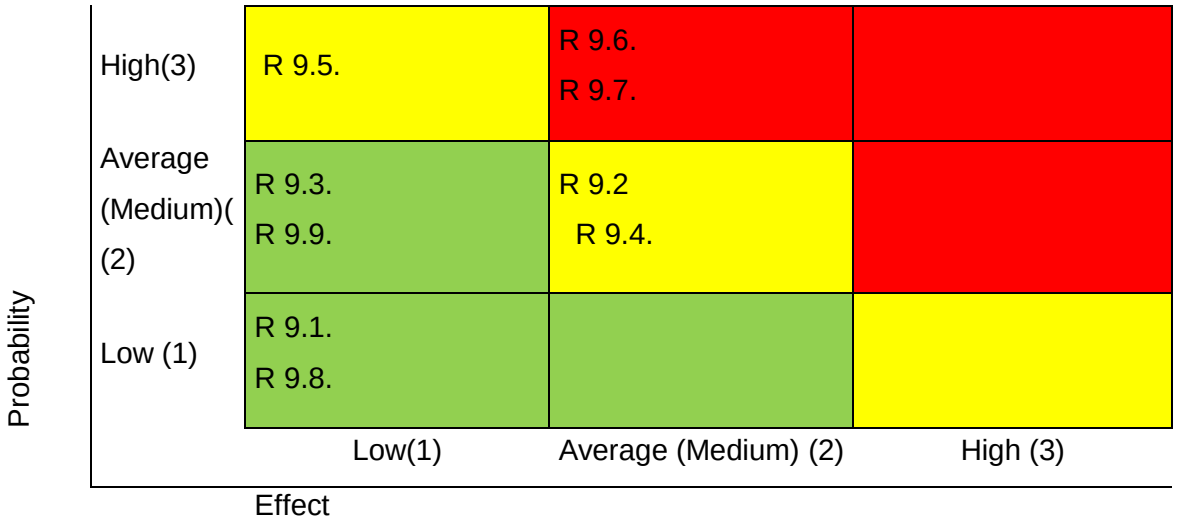
R 9.6. The risk of lack of financial liquidity.

R 9.7. The risk of penal and fiscal sanctions.

R 9.8. Risk of failure.

R 9.9. The risk of abuse.

Lp.	Process / Risk		P	S	P*S
P1	**FINANCIAL - ACCOUNTANT**				
	R 9.1.	Not billing the service	1	1	1
	R 9.2.	Not receiving payment for the service provided	2	2	4
	R 9.3.	Incorrect recognition of revenues and costs in the KR	1	2	2
	R 9.4.	Financial losses	2	2	4
	R 9.5.	Contractual penalties	1	3	3
	R 9.6.	Lack of financial liquidity	2	3	6
	R 9.7.	Penal and fiscal sanctions	2	3	6
	R 9.8.	Accident	1	1	1
	R 9.9.	Abuses	1	2	2
					29



CONCLUSIONS

The analysis showed that the value of residual risks in individual processes varies from 1 to 9. It should be indicated that using a scale from 1 to 3 the minimum risk value is 1, while the maximum value is 9. The risk value is the probability multiplied by the effect. The matrix has three levels of risk values: 1. Green color - low risk 2. Yellow - medium risk 3. Red color - high risk.

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In the presented processes, most of the risks were low and medium, which was desirable information for the future owner, because the analysis confirming the legitimacy of starting the activities of the Training and Advisory Company. As a result of this analysis, the company has been operating since 25 April this year. The company provides services throughout the country. Revenues and costs for the first quarter of operations are at a predictable level. If there are no threats that have not been identified and are not managed, the company has a good chance of making, developing and increasing market share. The Training and Advisory Company, like all entities in the world, faces threats, plans reactions to risks, monitors and controls. The company manages risks that may adversely affect the achievement of goals, as well as being prepared to take advantage of emerging opportunities.

The risk analysis will be repeated after the end of the balance sheet year to verify the risks in terms of their monitoring and to review processes for identifying potential risks that were not identified in the initial analysis and thus not being checked in the Risk Register. In addition, the residual value will be verified based on the experience gained and the incidents recorded. Ultimately, the company intends to update the risk analysis every twelve months, thus ensuring that the mapped risks in individual processes have a current value in relation to changes occurring both in the internal environment and in the external environment of the company.

SCOPE FOR FURTHER STUDIES

Related research in the field of risk identification and estimation as well as risk mapping were performed, among others in one of the PGNiG Group companies, where risk maps were updated. The risk analysis covered all areas, the value of inherent and residual risk was estimated, the results were plotted on the map, which was the basic tool in risk management. Similar activities towards risk analysis will be undertaken in the future based on other enterprises.

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