ENTERPRISE RISK MANAGEMENT (ERM) SOAR (STRATEGIC OBJECTIVE AT RISK) METHODOLOGY

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Abstract

Risk is part of every business decisions. Risk Management helps enterprises whether to take or avoid some risks that related to their objectives. Risks are by their very nature dynamics, fluid and highly interdependent so that they cannot be broken into separate components and managed independently. Enterprises operating in today's volatile environment require a much more integrated approach to managing their portfolio of risks that is Enterprise Risk Management (ERM). SOAR Methodology can be used to implement an effective ERM framework. This paper focuses on the application of the SOAR process to risks associated with strategic objectives. The further explanation will contain the elaboration of SOAR concepts, process and example.

Key words: ERM, SOAR, strategic objective, risk drivers, controls, metrics

Pendahuluan

Persaingan yang semakin ketat dalam dunia bisnis menuntut perusahaan memiliki keunggulan melebihi perusahaan lain untuk dapat bertahan dalam industrinya. Strategi yang tepat dapat membawa perusahaan mencapai visi, misi serta objektif yang telah ditetapkan. Dalam menjalankan strateginya tentunya perusahaan dihadapkan dengan banyak keputusan bisnis yang melibatkan bermacam-macam risiko. Oleh karena itu, diperlukan adanya manajemen risiko untuk menentukan apakah risiko yang terkait dengan keputusan bisnis tersebut layak atau tidak layak untuk diambil. Penerapan manajemen risiko yang tepat dapat membantu perusahaan menjalankan strateginya dengan memperkecil kemungkinan gagal dalam mencapai visi, misi dan objektifnya serta dapat membuat perusahaan lebih cepat bertumbuh dan maju dibanding pesaingnya.

Risiko-risiko pada dasarnya bersifat dinamis, tidak stabil dan saling bergantung, sehingga tidak dapat diatur secara terpisah-pisah (James Lam, 2003). Sebelumnya, banyak perusahaan mengatur risiko mereka secara terpisah-pisah sehingga manajemen risiko menjadi kurang efektif. Akhirnya muncul istilah *"Enterprise Risk Management"* (ERM) dimana manajemen risiko diterapkan secara terintegrasi. ERM dapat dijadikan alat untuk mencapai tujuan strategis (*strategic objective*) perusahaan.

Dalam menerapkan ERM dalam perusahaan banyak metodologi yang dapat dilakukan. Salah satu diantaranya adalah Metodologi SOAR (*Strategic Objective At Risk*), yang dapat meningkatkan kesempatan bagi perusahaan untuk mencapai tujuan strategis perusahaan. Setiap tujuan strategis perusahaan pasti berujung pada pencapaian hasil (*outcome*). Sekumpulan hasil tersebut dapat diklasifiksikan menjadi dua kelompok : (1) hasil yang mewakili kesuksesan dalam mencapai tujuan strategis perusahaan, (2) hasil yang mewakili kegagalan. Metodologi SOAR ini memperkenalkan distribusi dari kemungkinan hasil tersebut dan lebih memfokuskan distribusi atas hasil yang mewakili kegagalan yang digambarkan dalam Distribusi Normal dengan meminimasi kemungkinannya sehingga kemungkinan berhasil mencapai tujuan strategis yang ditetapkan lebih besar dari sebelumnya.

Enterprise Risk Management (ERM)

ERM is a comprehensive and integrated framework for managing credit risk, market risk, operational risk, economic capital, and risk transfer in order to maximize firm value. ERM membahas mengenai integrasi dalam tigal hal, yaitu : (James Lam, 2003)

1. *Integrated Risk Organization*
   Unit manajemen risiko yang tersentralisasi dan bertanggung jawab kepada CEO untuk semua aktivitas yang melibatkan risiko.
2. *Integrated of Risk Transfer Strategies*
   Melakukan pandangan secara menyeluruh atas semua tipe-tipe risiko.
3. *Integration of Risk Management into the Business Processes of a company*
   Mengintegrasikan manajemen risiko kedalam semua bisnis proses dalam perusahaan.

Keuntungan menerapkan ERM : meningkatkat keefektifan organisasi, laporan risiko yang lebih baik dan kinerja perusahaan yang meningkat.

Metodologi SOAR (*SOAR Methodology*) (Gregory Monahan, 2008)

SOAR merupakan singkatan dari *Strategic Objective At Risk*.

Strategic Objective (tujuan strategis)
Strategi : Keputusan-keputusan yang memiliki dampak jangka pendek dan jangka panjang terhadap aktivitas-aktivitas organisasi meliputi analisis yang menuntun kepada penyediaan sumber daya dan penerapan atas keputusan-keputusan tersebut untuk memberikan nilai kepada pihak-pihak utama yang terkait dengan perusahaan dan menglahkan para pesaing (Hubbard, 2007).
Objektif : Arah dari sebuah organisasi (Hubbard, 2007).

Beside of the types of tags, there is another major concern for the tags, that is, the data storage. There are also three types of data storage: the read-only, the read-write, and the WORM (write once, read many). The Read-only type means the data stored cannot be added to or be overwritten. The read-write type means the data stored can be added to or be overwritten. The WORM means that the tags can have additional data once and after that the tags cannot be overwritten.

Another important part to support the RFID technology is the radio frequency which operates the data transfer between the tags and the reader. Normally the selected frequency depends on the needs, the speed of application, the standardized regulation and many more. For example RFID application for an animal tagging operates in the frequency of 135 KHz (see Gunawan, 2008). The types of the frequency length can be seen below:

Abbreviation	Types	Range	RFID Uses
LF	Low Frequency	30 kHz-300 kHz	125 kHz
HF	High Frequency	3 MHz-30 MHz	13,56 MHz
VHF	Very High requency	30 MHz-300 MHz	Not Used for RFID
UHF	Ultra High Frequency	300 MHz-3 GHz	868 MHz, 915 MHz

Table 2. Types of Frequencies (in Maryono, 2005: 22)

The Implementations of RFID

Nowadays people widely accept the RFID technology in daily life. The RFID can be employed for tracking the very expensive merchandise or the simple process like collecting tolls. In other words people use the RFID in order to support their daily activity. RFID is mostly implemented in the government administration, the public health, the school and library. These implementations are to track down the inventory and to support the use of e-passport. Some implementations in RFID will be discussed in the following points.

A. Business

To improve supply in a chain management, starting in the Fall 2003, Walmart announced to its vendors to include the RFID tags in every goods they sent to the company. Two years after they announced the use of RFID tags, Walmart encouraged their top 100 supplier to use this technology. Surely, this technology is still developing. Yet, the function of technology can improve cost effectiveness and cost efficiency. This fact brings the technology applies into their retail store (See Kelly, 2005,cf. http://en.wikipedia.org/wiki/Radio-frequency_identification).

Car Max uses the RFID to track down cars which have been taken from the lot for a testing drive. FedEx put the RFID chip into a driver's wristband so that the driver can lock and unlock the door automatically without fiddling with the key.

Another story came from Boeing in 2004. Boeing used the RFID technology to reduce maintenance and inventory cost for Boeing 787 the Dreamlines. Since the parts of Boeing are expensive, RFID used for tracking down the parts based on its size, shape and environmental concern. For the first sixth month, Boeing has saved $29,000 just from the labor alone.

B. E-Passport

After the 9/11 tragedy in the United States of America, people are getting more concern about their own safety. This tragedy urges The Department of Homeland Security (abbreviated DHS) to suggest the E-Passport for the air travel safety. The E-passport itself contains some features like a chip identification number, a digital signature, and a holder photograph as a biometric identifier. All of these features will make the holder identity impossible to be forged. The RFID technology in E-Passport is used for a border security and for a more efficient and a more custom procedure at the airport.

One of the major concerns for the RFID used in E-Passport is a potential identity theft. The potential identity theft appears in two forms, they are the skimming and eavesdropping ones. The skimming is the process of reading the tags without the holder's acknowledgement. Meanwhile the eavesdropping is the process of reading the radio frequency emitted from the chip when it is scanned by the reader by an authorized person. The DHS insists that if the proper precautions had been implemented the E-Passport is safely to use. The skimming process can be avoided by inserting the radio shield between the passport cover and the first page. If the passport is closed, the reader will be impossible to read the chip, and if it is open, it can only be read from the 10 cm long. To prevent the chip on the E-passport from eavesdropping, an authorized bureau (for example a department of custom and security in an airport) can cover and enclose thoroughly the scanning area from an unauthorized signal (see http://en.wikipedia.org/wiki/Radio-frequency_identification).

C. Library

It can be predicted that in the future the RFID technology will replace the traditional barcode. The RFID tags can be attached to books, VHS, and DVD. The tags can contain identifying information like book titles and material types. The data in the tag can be read by the RFID reader on the library circulation desk. We cannot only tag books, but also the member cards.

The advantages of using this technology are time efficiency and data accuracy. A librarian doesn't have to open a book or DVD cover in order to scan it. The inventory also can be done within a minute without having to pull out each book from the rack. The tag can only be read by the RFID reader or transmitter within the area of 100 meters so that a librarian will not be worry that the data can be stolen by an unwilling source.

Singapore is the first country which implements the RFID technology for a library. Rockefeller University in New York is the first university which used the technology for the academic library. Meanwhile the Farmington Community Library in Michigan is the first public institution which employs this technology.

D. School and Universities

In Osaka, Japan, the primary school there started with chipping the children clothing, backpack, and student ID. In 2008, St. Charles Sixth Form College in West London, England, implemented the RFID card system for checking in and out at the main gate so that the security personnel there can track the attendance and to avoid unauthorized entrance.

E. Animal and Human Chipping

"I want you....to chip your pets", said the Secretary of the Navy, on September 26th 2006, (as noted in http://www.howstuffworks.com). Secretary of the Navy orders all navies and Marine Corps to implant the RFID chips in the body of their respective pets. This order is issued in order to prevent the navies from neglecting their respective pets if their navy family will be relocated to a new place (See Bonsor, Keener, 2007).

VeriChip, the leading company in human chipping business produces microchip which contains a unique identification number, and this identification is connected to a medical database. This chip can hold emergency contact information and a medical history for a patient. The potential user of the chip is people who have serious medical issues and Alzheimer's disease. The fee itself depends on the implantation and the number of information which want to be inserted into the database. This technology is still developing because not all of the hospitals have a RFID reader. Moreover some medical doctors will not check the patient's chip (See Bonsor & Keener, 2007).

In 2004, Conrad Chase, the owner of nightclubs, offered the chip implantation for the member of his nightclub in Barcelona, Spain and in Rotterdam, The Netherlands. The chip will be used to identify the VIP customers and the chip is used to pay a drink (see http://en.wikipedia.org/wiki/Radio-frequency_identification).

ADVANTAGES AND DISADVANTAGES OF RFID TECHNOLOGY

A. Advantages

It's clearly noted that RFID has many advantages. In business, this technology can affect cost efficiency, or it can supply chain management, and maintain the inventory record accurately as it is happened in the implementation of the technology in a library. Japanese parents will feel safe with the tagged chips into their children stuffs, so they need not to be worried of a children kidnapping.

The security level at the airport is also improved so that it will be difficult more and more to perform a false identity if one uses an E-Passport. Animals can be tracked so that the owners will not feel worried about their respective pets. The clubbers can move freely from a club to club because they don't have to bring their wallet into the night club. The identification and administration process will be processed automatically from the implanted chip in the body of the club member. In short, this technology brings many improvements in a whole aspect of life.

B. Disadvantages

How about our privacy? Would you be ashamed of if people know where you buy your private things and publicized it? Does the implantation in the human body have a side effect? These questions may sounds paranoid for some people, but for some people may not. As far as the side effects of the technology are concerned one can infer that this technology will cause new problems.

It's impossible for an imperfect human to create a perfect technology. But the question is "how far can one tolerate the advantages of the technology?" One of the most concerned disadvantages is the lack of privacy for the user. If the technology is not carefully used, there can be a theft of identity or data by an unauthorized party for example by skimming and eavesdropping. Later on, if there are no specific rules the technology may lead to the human tracking.

Some of the implementation of The RFID on animals and human bodies become controversial because the implanted chip can cause some negative outcomes especially on animal. Some test cases in mice on the mid-1990s proved that the implanted chip could trigger a tumor in animal (see Lewan, 2007). There is no further data about tumor case in the implantation of a chip in the human body. If this happens, however, one can raise a question: "is it worth it to risk our health for the sake of efficiency?" So it is better for the technology itself to be reevaluated thoroughly before it will be implanted in human bodies.

ORWELLIAN: THE CRITICS
George Orwell in his novel *Nineteen eighty-four* (1949) write
> *"The telescreen received and transmitted simultaneously. Any sound that Winston made, above the level of a very low whisper would be picked up by it; moreover, so long as he remained within the field of vision which the metal plaque commanded, he could be seen as well as heard. There was of course no way of knowing whether you were being watched at any given moment"* (see Orwell, in Kelly, 2005).

It might be just a quote from George Orwell. Nevertheless his novel describes a situation, an idea or a social condition which destroy the welfare of a free society (see en.wikipedia.org/wiki/Nineteen_Eighty-Four). All of the citizen are being patrolled by the Thought Police so there's no one who can be independent and rebellious against the Big Brother, the one who have a fully authority to education, government and recreation (see Bonsor, 2007).

We called this technology as "Orwellian" to mention if the technology will intervene too far with our private life. All the descriptions above may just a fiction, but how will it be if this authoritarian condition happens? What will happen if we cannot choose whether the chip should be implemented or not? If we have no more freedom, then what's the difference between human and soda can?

If we talked about Orwellian condition, then we cannot use the effectiveness and efficiency reason as an excuse. Human being is no longer being treated as a dignified person. When an authority can track us down even monitor whatever we do, then where is the freedom? Will the technology dominate human being?

Every person has natural rights equally and these rights belong to any one without exception. As far as that anyone embodies these natural rights is concerned, one can infer that these natural rights are absolute and universal. Thomas Hobbes (1588-1679) and John Locke (1632-1704), who proposes the universality of the natural rights, believe that people have a natural rights because of they are coming from the same species. The theory of the natural rights also help people identifying which administration is legal form and which one is illegal. Some philosophers also suggest that the natural rights include the right for living and the right of having a freedom. John Locke added the right to own property or the property rights into the list. Thomas Jefferson also confirmed if the right of reaching happiness is also included. And last but not least, the French Laws also believe that people have the right of being secure and the right to fight against oppression (Cf, Teichman, 1998:26-27). Scientists and governments should remind about the danger of the Orwellian application of the RFID technology, because it may against the natural law of every human.

CONCLUSION

Despite the fact that the RFID technology has been found for years ago, this technology can be said of being new. On the one hand, one can be sure that the technology brings many improvements to our life, and it can affect efficiency in many aspects of modern business. On the other hand, before one is too eager to implement the technology in all aspects of daily business, one should evaluate thoroughly this intention. We have to think twice if the technology will be implemented in animal's bodies or ours. We can deal with the risk of loosing our freedom if one insists to implement the technology for the sake of efficiency and accuracy of our daily business.

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