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Risk Management for New Product Development Projects in Food Industry

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Abstract: Project risk management provides a guideline for decision making in new product development (NPD) projects, reducing uncertainty and increasing success rate. However, the acceptance of formal risk management applications in industry, especially for NPD projects is still in question. A study of a food conglomerate in Thailand found that only 9% of NPD projects used a systematic approach for managing risk. 61% of the projects realised the importance of risk management, while the remaining 30% did not involve risk management at all. This study aims to develop a risk management model for NPD projects in the food industry. The first section of this paper reviews the literature on risk management theory, including international standards for risk and project management (ISO31000 and ISO21500), publications for the Project Management Body of Knowledge (PMBOK), by a professional organisation the Project Management Institute (PMI), and also academic research. 182 academic papers, published between January 2002 and August 2012 were selected. The second part interviews conducted with eight NPD experts from five of the major food manufacturers in Thailand to examine their risk management practices and problems. Conclusions are made on five topics : classification of research method, project type and industrial segment, distribution of articles by region, tools & techniques for risk management and risk factors in projects. Specific requirements of risk management for NPD projects in the food industry are identified. A risk management model and the concept of risk management applications for the food industry are proposed.

Keywords: Project management, risk management, new product development, risk factor, food industry.

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Project risk management is the process of identifying, analyzing and then responding to any risk that arises over the life cycle of a project to help the project remain on track and meet its goal. Risk management isn't reactive only; it should be part of the planning process to figure out risk that might happen in the project and how to control that risk if it in fact occurs. A risk is anything that could potentially impact your project's timeline, performance or budget. There is never enough information you can gather. Of course, a lot of that data is complex, but most industries have best practices, which can help you with your analysis. You might be surprised to discover that your company already has a framework for this process. So, how do you analyze risk in your project? Product Development. R&D. Color. Equipment Risk Management -- All food businesses depend heavily on their equipment, much of which is highly automated. Imagine what would happen to a food business if the refrigeration were not working properly. When a mechanical failure takes place, the business often must close and face a loss of income. Many food manufacturers make products for others, which are sold under the customer's label, so coverage should include reimbursement for recall costs incurred by others. The best carriers provide loss-control services that can help your business develop a quality control plan. Services typically include batch testing, recordkeeping and product identification, all of which can reduce the risk of food safety problems. Product Development and Management Association (PDMA): This organization is the certifying body for the New Product Development Professional (NPDP) certification. As of 2017, they have about 3,000 members in 50 countries, but only have chapters in the U.S. and Canada. They have been around since 1976, and focus on the whole set of development activities, from conception to the sunset of products. They also focus on current research in new product development and partner with many commercial organizations. Membership costs about \$200.