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# The Construction of Compliance Management Influence Model in Food Manufacturing Enterprises: The Theory of Planned Behavior Perspective

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**Abstract**

With the development of China's socialist market economy, controlling the legal risk and compliance management of the food manufacturing companies has become a major trend. The view of the theory of planned behavior is the human actions mostly occur on the basis of goal-directed and well-formulated plans. Construct a compliance management influence model is crucial if the food manufacturing enterprises that want to improve the effectiveness of the compliance management. The objectives of the study are: (i) to identify the factors which influences the management efficiency and level of the food enterprises, (ii) to construct a model of the compliance management based on the TPB theory. The study employs a interpretive approach research method. The finding from this study are: (i) identified four factors: knowledge, attitude of the risk behavior, corporate social responsibility, and legal and regulation enforcement which affects the intention of compliance management the food manufacturing enterprises, (ii) constructed a model that influence the compliance management. Therefore, this study proposes a theoretical framework about compliance management, which can be a foundation and framework for the subsequent research about the influences of compliance management in the food manufacturing enterprises.

**Keywords:** Food Industry, Legal Risk, Compliance Management, TPB Theory.

## Introduction

With the rapid development of industrialization, the modern food industry has also rapidly developed, and the scope and depth of food processing are constantly expanding. It has now become the world's largest manufacturing industry and the largest industry in China's manufacturing industry (Wang et al., 2021). According to statistics from the Ministry of Industry and Information Technology, in 2020 the total profits of enterprises above designated size in the national food industry will be 620.66 billion yuan, a year-on-year increase of 7.2%, which is 3.1 percentage points higher than that of the entire industry (Wang

et al., 2021). From January to December in 2021, the total profit of enterprises above designated size in the national food industry reached 618.71 billion yuan, up 5.5% year on year. Among them, the total profit of agricultural and sideline food processing industry was 188.99 billion yuan, down 9.2% year on year; the total profit of food manufacturing industry was 165.35 billion yuan, down 0.1% year on year (The Ministry of Industry and Information Technology, 2022).

Billions of people in the world are at sick of unsafe food. Safe food provides basic human necessity; safe food supply depends on both sound science and equitable law enforcement (Fung et al., 2018). With China's economy has continuous developing and people's living improved to higher standard, food safety has become the main contradiction (Dai, 2018). The Chinese government constantly attaches importance to food safety, and continuously increases the punishment for illegal enterprises (Li, 2022).

**Problem Statement**

Food manufacturing enterprises faces a challenge in terms of enhancing the quality of the Compliance management. Most of the enterprises concerns the legal risk, want to improve the level of compliance management, however dot have a mode to connect with the knowledge, behavior attitude, corporate social responsibility and Legal regulatory environment with the compliance management. This research attempted to identify factors which influences the management efficiency and management level of the food enterprise.

**Limitations of The Study**

The study is limited to TPB theory that offer the predict the compliance management which is influenced by the knowledge, behavior attitude, corporate social responsibility and Legal regulatory environment in China.

The research was limited to the Chinese food industry, and the findings may not be generalized to other countries or industries.

**Research Objectives**

The objectives of the study are: (i) to identify the factors which influences the management efficiency and level of the food enterprises, (ii) to construct a model of the compliance management based on the TPB theory. The study employs an interpretive approach research method.

**Theory of Planned Behavior**

Human actions mostly occur on the basis of goal-directed and well-formulated plans (Ajzen, 1985; Kautonen et al., 2015). Such actions comprise distinct but intensely integrated components, namely objectives, attitudes with behavioral intents and actual behavior (Hossain et al., 2023). Actions are being designed in advance and are being executed as the plans gradually realize. The person who wants to attain specific objectives is usually well aware of the actions that need to be engaged in with the view to achieving the personally selected or personalized objectives. Some actions may be internalised to the level of automation or requiring less conscious thought, while others require deliberate planning and preparation (Ajzen, 2011). All actions to fulfil personal objectives require guidance via some plan. However, actual behaviour is always preceded by specific intent to achieve a specific purpose (Ogiemwonyi et al., 2022). Such intent is based on specific knowledge concerning the necessary behaviour, coupled with the will and attitude that the performance of the relevant

or applicable behaviour is necessary. Behavioral intent will result in the achievement of one or more chosen objectives and forms the basis for the actual performance of the chosen behaviour (Ajzen, 2011; Kautonen et al., 2015). The execution of specifically intended behaviour that is based on specific knowledge and which is motivated by an attitude to perform such behaviour with the purpose to achieve particular results, sets a framework for performing the planned behaviour that will realize the intended purpose. It is self-evident that the achievement of objectives is preceded by planned behaviour, and that the performance of the actions to succeed in the actual achievement of such objectives has to be controlled (Ajzen, 2002). Planned behaviour implies and requires the performer to have the appropriate knowledge, attitude with behavioral intent and skill to execute the applicable performance (actual behavioral), and to control the positive outcome of performance (Ajzen, 2011; Ogiemwonyi et al., 2020).

Employers/managers of food enterprises should have the appropriate food safety knowledge, a positive attitude, and the correct intent to act purposefully and to perform the correct behaviour in order to comply with food safety directives or core criteria. However, in order to move from intentional behaviour to actual behavioral barriers to working safely constitutes a possible problem (Probst et al., 2013).

According to Ajzen and Sheikh (2013), TPB is of the contention that the behaviour of a person affects the attitude towards behaviour; subjective norms are determined by expectations and behavior of others; perceived behavioral control originates in beliefs of inhibiting factors; and the combination of attitude, norms and perceived controls provide intentions that produce behaviour, and when actual control does not exist, perceived control takes over.

These elements are all present in the actual behaviour of the employers/managers of food enterprises when compliance to food safety directives is relevant. This underlying approach to planned behaviour relates directly to the adherence of small business employers/managers to a CMF pertaining to food safety. Knowledge, attitude in terms of behavioral intent and behaviour or actions concerning food safety are applicable in connection with the planned behaviour of small business owners/managers in order to attain compliance with a CFM pertaining to food safety. In meeting the requirements of a CFM in food safety, employers/managers need to practice planned behaviour based on specific food safety knowledge, accompanied with appropriate attitudes and behavioral intents as well as awareness of the actual actions or performance to achieve compliance and the control of the required outcome.

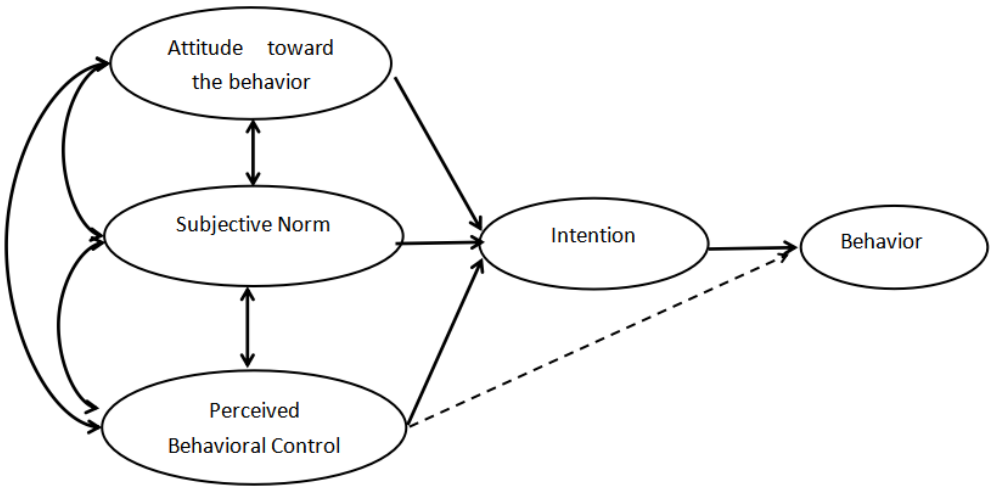


Fig. 1. Theory of planned behavior (Ajzen 1991)

**Knowledge and Behavior Intention**

Food manufacturing business owners/managers need to be conversant with the appropriate knowledge about adhering to compliance with local legislative requirements and international directives, as well as own organizational standards regarding food safety in the workplace. Such Food manufacturing business owners/managers must also display and confirm the importance of compliance with food safety requirements, directives and own food safety standards (Hossain et al., 2023; Smallwood et al., 2009).

Without the necessary knowledge, no effective planned behaviour pertaining to compliance with food safety requirements can materialise. Should owners/managers of small businesses have the applicable knowledge concerning compliance with food safety prescriptive requirements, but they lack the necessary attitude and behavioral intent to execute the requirements, the process of planned behaviour cannot be concluded. Therefore, it is important that small business owners/managers do not base their planned behaviour pertaining to food safety compliance on beliefs or inaccurate knowledge and/or demonstrate negativity towards meeting such food safety requirements (Ajzen, 2011).

**Attitude and Behavior Intention**

Attitude refers to the preference level of risk behavior individuals in a certain context to adopt a specific behavior. Ajzen has empirically demonstrated the strong causal relationship between attitude (AT) and individual behavior intention (BI) (Ajzen, 1991). An individual's attitude is directly related to their behavioral beliefs (Fishbein and Ajzen, 1977). The strength of beliefs about risk behavior and their evaluative component constitutes the behavioral beliefs of the subject (de Bruijn et al., 2012). The degree to which an individual expects behavior results to be achieved is reflected in the strength of beliefs. The evaluative component reflects the expected outcome of risk behavior (Greaves et al., 2013). Whether an individual evaluates the outcome of risk behavior as positive or negative will then lead to emotional output. Typically, a positive evaluation produces a general, non-specific sense of pleasure or happiness, while a negative evaluation often leads to a sense of frustration or disappointment.

From the perspective of attitude, the attitude towards compliance management behavior reflects the degree of preference of decision-makers to adopt compliant risk management behavior in the interaction between internal and external environments (Chang et al., 2013). Some compliance management risk behaviors (such as reducing the number of compliance management personnel and cross-management inspections) are considered by enterprises to have very low risks and may even reduce costs. Therefore, decision-makers in enterprises estimate positive results and value for risk behavior, consciously or unconsciously implementing risk behavior in enterprise operations.

If a food processing enterprise expects a higher degree of economic benefits from compliance management risk behavior and evaluates the expected benefits of risk behavior more positively, the enterprise's attitude towards implementing compliance management will be more positive. The higher the accessibility of attitude based on past experience, the stronger the corresponding attitude intensity and the greater the influence on behavior.

Attitude can be divided into instrumental attitude and emotional attitude (Lao and Wu, 2013). Instrumental attitude includes beneficial/harmful, valuable/ worthless, while emotional attitude includes like/dislike, pleasure/pain, etc. It has been found that different attitudes of behavioral individuals can predict traffic violations. Lin and Roberts used the TPB theory to predict the planned behavior intention of food safety behavior (Lin and Roberts, 2020).

Research has shown that behavioral attitudes do not directly cause individual behavior, and that behavior attitudes often act on behavior through behavioral intentions (Conner and Armitage, 1998). When the new information obtained by individuals in their risk decision-making process matches their perceived past experiences, the individual is more likely to develop a stable behavioral attitude with higher accessibility. Conversely, when historical experiences do not match, behavioral attitudes will also lose stability. Therefore, when the external environment of individual behavior decision-making changes, people need to form new behavioral attitudes, subjective norms, and cognitive behavior control to collectively influence behavioral intentions and actual behavior (Polas et al., 2020).

In the compliance management decision-making process of food processing enterprises, the government maintains a high-pressure environment for food safety and actively formulates relevant policies and regulations, so that compliance management behavior is expected to be recognized and perceived by food processing enterprises, weakening the risk of illegal and irregular behavior.

**Corporate Social Responsibility and Behavioral Intentions**

According to the TPB theory, subjective norms refer to the social pressure felt by individual behavior in adopting a specific behavior, that is, when predicting the behavior of others, the impact of individuals or groups on whether a subject implements a behavior. In Ajzen's TPB model, subjective norms are one of the three major factors that affect individual behavioral intentions. However, some scholars (de Bruijn, 2012) have found that the predictive effect of subjective norms on behavioral intentions is the least obvious among the three factors. The reason may be that subjective norms are limited to the concept of individuals and teams, and cannot comprehensively summarize the social influences in various aspects (Chang et al., 2013; de Bruijn, 2012; Li and Jiang, 2022; Lao and Wu, 2013).

Therefore, subjective norms are further divided into instrumental norms and descriptive norms (Lao and Wu, 2013). Instrumental norms are similar to the subjective norms involved in traditional TPB theory, emphasizing whether the behavior of the individual is approved by others who have influence on him/her (Lao and Wu, 2013). It can be said that instrumental norms are whether the individual's behavior will be affirmed or denied in a specific context. Descriptive norms emphasize the belief of individual behavior towards others who have influence on them, similar to conforming behavior. According to the persuasion theory in social psychology, in the group environment where the behavior subject exists, the subject's original attitude towards behavior will be indirectly influenced by the recommendations of other peers in the group and debates about certain behaviors. Studies have found that descriptive norms can affect the risk behavioral intentions of the behavioral subject (Qi et al., 2017).

Similarly, subjective norms include pressure from superiors, peers, media, and the influence of colleagues. Administrative orders from superiors may be a major reason for individuals to engage in risky behaviors (Chang et al., 2013). Furthermore, government and media negatively incontinence risky behavior, and the stronger the negative incentive, the weaker the willingness to comply with regulatory management behavior. In addition, there is a social influence from peers engaging in risky behavior, and the stronger the influence, the stronger the willingness to comply with regulatory management behavior.

Corporate Social Responsibility is the Organizations consider social, environmental, and ethical factors in their activities and decisions, and take responsibility for the impacts they generate (ISO 26000). Corporate Social Responsibility is the important part of the subjective

norms, and which has a significant impact on the intention to comply with compliance management .

When making project decisions, food processing companies are influenced by the external environment, including pressure from market competition, government policy regulation and guidance, social media sentiment, consumer preferences, and risk perception. These external influences drive food processing companies to seek ways and paths to survive and develop in the fiercely competitive market by leveraging their own advantages.

When regulatory compliance behavior of a food processing company does not conflict with its interests (even in the short term), the company may disregard the expectations and requirements of the market, government, and media, and be willing to engage in risky behavior based on bench marking with peers who have taken risky actions without being punished or even earning excessive profits. From the perspective of obedience motivation, even if the food processing company itself has not engaged in risky behavior, once larger peers in the same industry take risks, this will have a significant impact on its own risk behavior. Conversely, if companies in the same industry with similar or even smaller scales than the company refuse to engage in risky behavior, this will have a reverse impact on its risk behavior. Corporate Social Responsibility have a significant impact on the intention to comply with regulatory management behavior (Hossain et al., 2022).

**Legal and Regulatory Environment and Behavioral Intention**

The legal and regulatory environment refers to the framework of laws, regulations, and government policies that govern and regulate various aspects of business operations and activities within a particular jurisdiction. It encompasses both the legal system and the regulatory bodies responsible for enforcing and interpreting the laws (COSO2004). Legal regulatory environment is the important part of the cognitive behavioral control, it should have a significant impact on the compliance management.

Cognitive behavioral control refers to the cognitive status of the influencing factors that affect the execution of behavior, which is perceived by the subject regarding the difficulty of performing a specific behavior. The more controllable factors in the subject's behavior, the greater their cognitive behavioral control ability, and the greater the probability that their behavior will be ultimately implemented. Cognitive behavioral control can be analyzed from two levels: internal and external. The internal level is the individual's "self-efficacy" cognition at the intrinsic psychological level, which is not the ability to execute behavior but rather the individual's confidence level in their own abilities, reflecting the individual's control over behavior selection. The external level is the restriction of external environmental resources, namely usability and convenience.

When senior and grassroots employees of a food processing company realize that compliance management is optional and that the cost of implementing non-compliant and unethical behavior is very low, it can enhance their self-efficacy in implementing risky behavior, thereby enhancing their intention to engage in risky behavior (Li and Jiang, 2022). From the perspective of the connotation and constituent elements of cognitive behavioral control, compliance management behavior of a food processing enterprise is closely related to the convenience given by the external environment to the enterprise to engage in risky behavior. A company that lacks compliance management training, has not established an ISO 37301 system, and has many compliance management problems among managers, is much more likely to engage in illegal and non-compliant behavior than a company that has established an ISO 37301 system, has a sound and efficient compliance management system, has senior

management with good compliance awareness and social responsibility, and has detailed and well-managed employee regulations.

Cognitive behavioral control mainly includes self-efficacy from within and external resource ability from the outside, such as compliance management training resources and administrative supervision communication mechanisms, the higher the self-efficacy, the greater the likelihood of risky behavior by the actor, and the higher the external resource ability, the lower the likelihood of risky behavior by the actor. Legal and regulatory environment has a significant impact on the behavioral intention of food processing companies to comply with management.

**Mediating Effect of Behavioral Intention**

A large number of research results show that there is a causal relationship between the behavioral intention and risky behavior of the subject. The compliance management behavioral intention of a food processing enterprise reflects the degree to which the enterprise attempts to adopt non-compliant management behavior and the degree to which the enterprise is willing to pay to engage in illegal and non-compliant risky behavior. According to the planned behavior theory, the intention to engage in risky behavior can directly determine behavior (Li and Jiang, 2022). When a food processing company or individual strongly realizes that even if they engage in non-compliant risky behavior, the harm to the company or individual is small, or the potential harm is smaller than the potential benefit, they will develop a positive attitude towards the behavior and increase the company's control over the intention to engage in risky behavior, such as by being willing to pay a high cost to meet quality and safety requirements, while not being punished for producing counterfeit products.

These constitute the conceptual model of the formation mechanism of compliance management risks in food processing companies from a micro perspective, as shown in Figure 2.

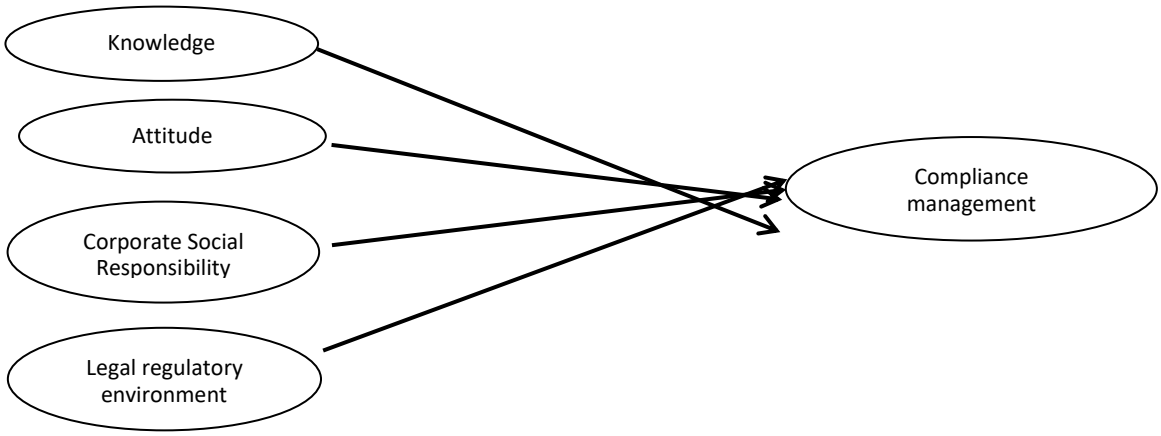


Fig. 2. Concept model

**Findings and Conclusions**

The results of the study showed that the factors of compliance management are highly effective for evaluating the quality of compliance management in the food enterprises.

The effectiveness of the compliance management is due to the fact that it consists of quality characteristics that are relevant for compliance management.

The results showed that all these factors have substantial and statistically significant influences on the outcome of the responses to the items in the questionnaire.

**Recommendations**

This study aims to address the research gap by conducting a comprehensive evaluation of legal risks and compliance management practices in Chinese food companies. The study will identify the major legal risks faced by Chinese food companies, analyze the current compliance management practices, and evaluate their effectiveness in addressing legal risks. Additionally, the study will examine the role of corporate social responsibility in managing legal risks in the Chinese food industry. By doing so, the study will contribute to the existing literature by providing insights into the specific legal risks and compliance management challenges faced by Chinese food companies and the potential solutions to address these challenges.

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**References**

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), Action-control: From cognition to behavior (pp. 11–39), Heidelberg, Germany: Springer.

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior 1. Journal of applied social psychology, 32(4), 665-683. Available from:Google Scholar

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. Psychology & health, 26(9), 1113-1127.

Chang, T. K., Huang, H. F., & Chang, S. M. (2013). Understanding educational administrators' subjective norms on their use intention toward on-line learning. In 7th International Conference on Knowledge Management in Organizations: Service and Cloud Computing (pp. 267-273).

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. Journal of applied social psychology, 28(15), 1429-1464.

Dai, X., Zhang, D., Wu, T., Zhang, H., Meng, Z., Tian, S., ... & Yang, X. (2018). Retrospect and Prospect of China's Food Industry Development. Agricultural Science Journal, (01), 125-134.

De Bruijn, G. J., Verkooijen, K., de Vries, N. K., & Van den Putte, B. (2012). Antecedents of self identity and consequences for action control: An application of the theory of planned behaviour in the exercise domain. Psychology of Sport and Exercise, 13(6), 771-778.

Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research.

Fung, F., Wang, H. S., & Menon, S. (2018). Food safety in the 21st century. Biomedical journal, 41(2), 88-95.

Hossain, M. I., Maideen, M. B. H., Sharmin, N., & Islam, T. (2023). COVID-19 Repercussions on Bangladeshi On-Demand-Food Delivery, Restaurant, and Hotel Industry. *International Journal of Innovation and Business Strategy (IJIBS)*, *18*(1), 50-62.

Hossain, M. I., Ong, T. S., Tabash, M. I., & Teh, B. H. (2022). The panorama of corporate environmental sustainability and green values: evidence of Bangladesh. *Environment, Development and Sustainability*, 1-27.

Hossain, M. I., Tabash, M. I., Siow, M. L., Ong, T. S., & Anagreh, S. (2023). Entrepreneurial intentions of Gen Z university students and entrepreneurial constraints in Bangladesh. *Journal of innovation and entrepreneurship*, 12(1), 1-34.

Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. Entrepreneurship theory and practice, 39(3), 655-674.

Lao Kefu, & Wu Jia. (2013). The influence mechanism of green consumption behavior based on the Ajzen plan behavior theory. Financial science, (2), 91-100.Available from:Google Scholar [assessed 15 May 2023].

Li, J. (2022). Continuously Enhancing the Level of Food Safety Governance with "Four Strictest Measures." China Market Supervision News, 001.

Li, J. L., & Jiang, S. T. (2022). Study on the intention influence mechanism of black tourism behavior based on TPB model —— Empirical analysis of tourism in the Memorial Hall of the Victims in the Nanjing Massacre by Japanese Invaders. Journal of Anhui University (Philosophy and Social Sciences edition).

Lin, N., & Roberts, K. R. (2020). Using the theory of planned behavior to predict food safety behavioral intention: A systematic review and meta-analysis. International Journal of Hospitality Management, 90, 102612.

Ogiemwonyi, O., Harun, A. B., Alam, M. N., Karim, A. M., Tabash, M. I., Hossain, M. I., & Ojuolape, M. A. (2020). Green product as a means of expressing green behaviour: A cross-cultural empirical evidence from Malaysia and Nigeria. *Environmental Technology & Innovation*, 20, 101055.

Ogiemwonyi, O., Harun, A., Hossain, M. I., & Karim, A. M. (2022). The Influence of Green Behaviour Using Theory of Planned Behaviour Approach: Evidence from Malaysia. *Millennial Asia*, 09763996221080508.

Polas, M. R. H., Hossain, M. I., Tabash, M. I., Karim, A. M., Dad, A., & San, O. T. (2020). Does Green Entrepreneurial Intention Persuade an Individual to Contribute to the Sustainable Green Economy? *Talent Development & Excellence,* 12 (2s), 1142-1157

Probst, T. M., Graso, M., Estrada, A. X., & Greer, S. (2013). Consideration of future safety consequences: A new predictor of employee safety. Accident Analysis & Prevention, 55, 124-134.

Wang, G., Song, J., Cheng, J., & Ding, J. (2021). Research on the Informationization Construction Path of Regulatory Compliance System for Food Safety Supervision. China Food and Drug Regulation, (04), 78-87.

Wang, J., Cheng, L., Ji, J., Li, Z., Liu, Y., & Chen, J. (2021). High-Quality Development of China's Food Industry. Strategic Study of CAE, 23(05), 139-147.