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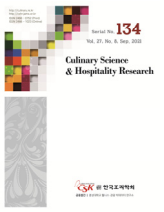

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Traffic Light Signpost Labeling System with SWOT Analysis: Focused on Healthy China Action

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KEYWORDS

Healthy China action,
SWOT analysis,
Traffic light signpost labeling system (TLSL)

ABSTRACT

China launched the Healthy China Action in 2019. This action is committed to alleviating the increasingly prominent national health problems and the establishment of an integrated pre-packaged food labeling system is one of the main tasks. Traffic Light Signpost Labeling (TLSL) system has been implemented in many countries. Many studies have detailed and verified its content and positive effects. Therefore, this study adopted SWOT analysis to analyze strengths (S), weakness (W), opportunities (O), and threats (T) of implementing TLSL system in China in the context of Healthy China Action, and combined SWOT matrix with SO, WO, ST and WT to draw relative strategies to its expansion and development in China. Finally, this study could provide a theoretical basis for the implementation of TLSL in China, implementation suggestions could be discussed and related research information could be enriched as well.

1. INTRODUCTION

Unhealthy diet is the main risk factor for the occurrence of non-communicable diseases. According to the study of Zhu (2021) the overweight and obesity rates of children and adolescents under the age of 6 and 6-17 have reached 10.4% and 19.0%, the overweight and obesity rates of residents aged 18 and above were 34.3% and 16.4%, respectively, and more than half of the adult residents were overweight or obese (50.7%). Gao, Zhang and Pan (2021) indicated that the rate of dyslipidemia among residents aged 18 and above has increased significantly, and chronic diseases such as diabetes, hypertension, and cardiovascular and cerebrovascular diseases are all presenting the increasing trend. It has been proved that these chronic diseases are closely related to long-term dietary imbalance and excessive fat and salt intake.

According to the results of the National Nutrition Survey, Chinese residents currently suffer from both malnutrition and overnutrition, especially the high intake of fat and sodium (salt), which is the main cause of chronic diseases. Based on the study by Wang, Page, Gill and Melaku (2021), it was verified that higher diet quality may reduce mortality risks associated with inflammation, particularly in non-obese groups and obese participants with moderate inflammation. Besides, Tang, Du, Oh and Noh (2019) postulated that appropriate protein diet is significant to maintain the structure and function of skeletal muscle in the elderly.

Generally, residents' awareness of health knowledge is low, and unhealthy lifestyles such as lack of exercise and unreasonable diet are more common. The disease problems

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caused by this are becoming increasingly prominent. In order to alleviate the current prominent national health problems and establish effective intervention measures, China began to implement the Healthy China Action in 2019, which clearly proposes to revise the general principles of prepackaged food nutrition labeling and promote to build a food nutrition standard system as its major task.

An effective food labeling system has the potential to reduce the prevalence of obesity by promoting healthier choices at the point-of-purchase (Sonnenberg et al., 2013) and it has been recognized as an effective tool to protect consumer health in terms of food safety and to promote nutritional well-being (Food and Agriculture Organization of The United Nations, 2016). Front of Package (FOP) labeling system is an important preventive measure for health departments in many countries to deal with various non-communicable diseases, and it has attracted an increasing attention from the whole world. As a typical food label, the Traffic Light Signpost Labelling (TLSL) system has been adopted by many countries, and the positive effects produced in its implementation have also been continuously verified. Borgmeier and Westenhoefer (2009) testified the effects of four types of food nutrition labeling covering TLSL and then to verified that different forms of nutrition labeling have different effects on consumers. As results, perceived healthiness of food is influenced by TLSL most often.

Under the background of Healthy China Action carried out in China, this research combines relevant requirements for improving food labeling initiated by Healthy China Action with the characteristics of TLSL, and then adopts SWOT analysis method to analyze and summarize Strength, Weakness, Opportunities and Threats of the implementation of TLSL. SWOT is also referred as TOWS (Threat, opportunity, weakness, and strength) as both acronyms having same meaning. Meanwhile, analysis of TOWS matrix (Weihrich, 1982) was performed to procure relative strategy recommendations and implications for the application of TLSL in China specifically. At last, the purpose of providing theoretical baseline information for the improvement of TLSL in China with the initiatives of China Healthy Action could be achieved.

2. LITERATURE REVIEW

2.1. Healthy China Action

Healthy China Action (2019-2030) (Health China Action Promotion Committee, 2019) is a development strategy formulated by the National Health Commission in June 2019. The basic principles of Healthy China Action were popularizing healthy knowledge, improving literacy, establishing self-discipline and healthy life, early intervention and improvement of services and universal participation, co-construction and sharing. Based on these principles, it was committed to achieving effective control of the main health influencing factors of residents and significantly lower the mortality caused by major chronic diseases.

The major responsibilities were to improve the per capita healthy life expectancy, to list in the rank of high-income countries of main health indicators, and the ultimate goal of health equity is basically achieved. The main tasks include comprehensive intervention in health influencing factors, maintenance of health throughout the life cycle, and prevention and control of major diseases. There are a total of 15 major specific actions. The explanatory and detailed content of Healthy China Action was demonstrated in Fig. 1. Among these implementation actions, implementation of reasonable diet action clearly stated that for the general population, specific groups and families, focusing canteens, restaurants and other places, they are supposed to strength nutrition and dietary guidance, encourage the whole society to participate in the reduction of salt, oil, sugar, etc(Kim, 2013). In the meantime, the sugar, oil and salt packaging standards were necessary to be promoted. More importantly, the general principles of pre-packaged food nutrition labeling were needed to be revised and regulated to promote the construction of food nutrition standard system. The objectives of

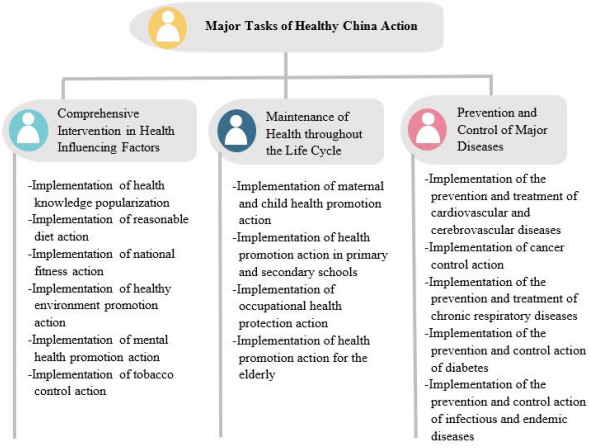

Fig. 1. Detailed content of healthy China action.

this action were summarized that by 2022 and 2030, the growth rate of adult obesity will continue to decrease and the growth retardation rate of children under 5 years old will be less than 7% and 5% respectively (Health China Action Promotion Committee, 2019).

Besides, in the implementation of health promotion action in primary and secondary schools, related tasks are involved in guiding students to develop healthy living habits from an early age to prevent obesity and other diseases. The implementation of health promotion actions for the elderly involves the related tasks of popularizing dietary nutrition knowledge for the elderly (Wardle, Parmenter, & Waller, 2000). The implementation of cardiovascular and cerebrovascular disease prevention and control actions involves the relevant tasks of strengthening the standardized management of hypertension, hyperglycemia, and dyslipidemia. The implementation of diabetes prevention and control action involves guiding diabetic patients to strengthen health management, delaying or preventing the occurrence and development of diabetes, and strengthening the related tasks of health management for diabetic patients and high-risk groups. By synthesizing the above-mentioned content of Healthy China Action, it could be seen that these management tasks are directly or indirectly associated with contents of dietary health.

2.2. Traffic Light Signpost Labeling System(TLSL)

The food standards agency (FSA) is a government sector which is responsible for food safety, food hygiene, health and nutritional information in England, Wales and Northern Ireland. According to the official FSA website (Food Standards Agency, 2018), this agency designed and formulated TLSL with the purpose of solving the problems of chronic diseases such as obesity and diabetes among British. As one of the formats of FOP, TLSL has been recommended to manufacturers and retailers to carry out since 2006. In 2013, FSA, the Welsh government, and the Scottish government made changes to the TLSL and combined it with Guideline Daily Amounts to put into practice. Later, in 2016, the British Ministry of Health issued the Nutrition Labeling Technical Guidelines, which specified the content of food labels. Then, the British Ministry of Health, FSA and the local governments of Scotland, Northern Ireland and Wales worked with the British Retail Association to formulate the Pre-Package Guidelines for the Design of Nutrition Labels on the Front of Retail Food Packaging. These two guidelines have been the basis for the design of TLSL and the specific intake of TLSL of FSA was demonstrated in Fig. 2. Afterwards, the current content of TLSL has been postulated.

Using the government scheme, a combination of colour coding (traffic lights) and nutritional information is used to show, at a glance, whether a product is high (red), medium (amber) or low (green) in fat, saturated fat, salt and sugars, and how much energy (calories and kilojoules) it provides, And the details could be seen in Fig. 3. Thus, a relatively healthier food choice could be made among diverse foods by comparing the nutritional information provided.

Some studies have verified that TLSL, as an explanatory labeling system, has positive impact on people's selection process(Roseman, Joung, Choi, and Kim, 2017). For example, Since 2016, Iran has introduced a “traffic light” food labelling scheme and salt, sugar, and fat regulation. Subsequently, salt in fresh cheese has halved, from 4% to 2%. Levels of trans-fatty acids in cooking oils used at home, and by food industries, have been cut to below 2% and 5% as part of a push to reduce fats in Iranian diets by 10%. Sugar in flavored, carbonated or fruit drinks has fallen below 10% (Ghazavi, Rahmi,

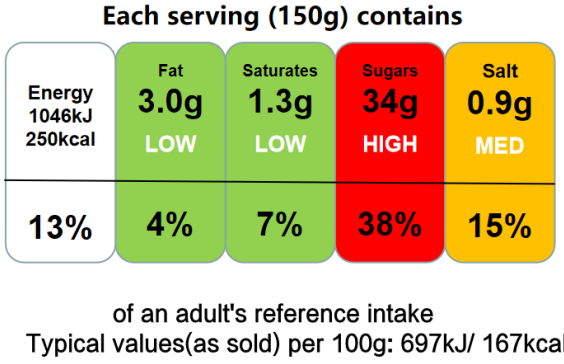

Fig. 2. Example of traffic light signpost labeling. (source: Food Standards Agency website)

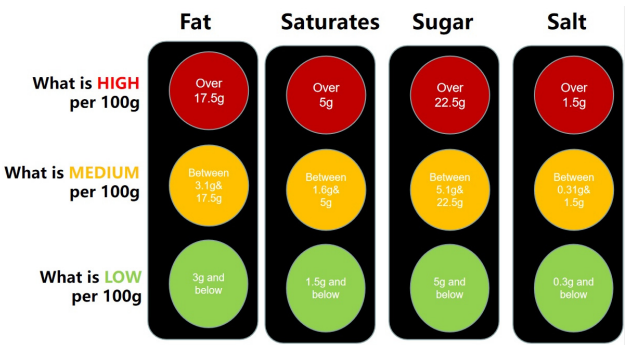

Fig. 3. UK traffic light index. (source: Food Standards Agency website)

Esfandiari, & Shakerian, 2020). Sonnenberg et al. (2013) surveyed customers in a hospital cafeteria in Boston, Massachusetts before and after implementation of traffic light food labeling to determine the effect of labels on customers' awareness and purchase of healthy foods.

2.3. SWOT Analysis and TOWS Matrix

SWOT analysis is a strategic planning technique used to help a person or organization identify strengths, weakness, opportunities and threats related to business competition or project planning which is supposed to credit to Albert Humphrey, who developed this approach at the Stanford Research Institute (SRI) back in the early 1960s and early 1970s (Humphrey, 2005). The major objective of SWOT analysis is to identify the strengths and weakness of an organization and the opportunities and threats in the environment (Baycheva-Merger & Wolfslehner, 2016).

Generally, the strengths and weaknesses are identified by an internal appraisal of the organization and the opportunities are threats by an external appraisal. TOWS matrix can be the variation of SWOT analysis (Weihrich, 1982). In Table 1, the various factors are identified and they are paired, for example, an opportunity with a strength to stimulate offensive initiative, a weakness with an opportunity to procure the defensive strategy, a threat with a strength to build the adjustive initiative, and a threat with a weakness to stimulate the survival strategy.

Table 1. TOWS Matrix model (Weihrich, 1982)

SWOT Matrix	Strengths	Weakness
Opportunities	Offensive make most of these	Defensive watch competition closely
Threats	Adjust restore strengths	Survive turn around

Collectively, SWOT analysis identifies the strengths, weaknesses, opportunities and threats with the point form while the TOWS matrix facilities cross-matching among these four factors (Kapoor & Kaur, 2017). The basic SWOT analysis was indicated in Table 2. Therefore, based on the synthesis and summarization of previous research, relative reports or documents, the main internal strengths and weakness, and external opportunities and threats which were closely related to the development of traffic light nutrition label in China were analyzed and categorized through SWOT analysis. Finally, corresponding implications for the establishment of strategies to promote the development of traffic light nutrition label were well discussed and provided.

3. DISCUSSION

3.1. Strengths

In terms of strengths of the conduction of TLSL, it mainly consists of theoretical and practical strengths. Firstly, for the theoretical endorsement, firstly, a lot of scholars from different countries have verified the positive effect of the implementation of TLSL in controlling the intake of related energy elements. In the research by Sacks, Veerman, Moodie and Swinburn (2011), it was illustrated that traffic-light nutrition labelling and taxes on unhealthy foods are likely to offer excellent 'value for money' as obesity prevention measures, additionally, its positive effect on non-communicable chronic diseases such as obesity and cardiovascular disease, were verified. Furthermore, Freire, Waters, Rivas-Mariño, Nguyen and Rivas (2017) concluded that the potential contribution of TLSL to reduce consumption of products with high levels of

Table 2. Relevant research of SWOT analysis

Source	Field	Method	Country
Hill & Westbrook (1997)	Manufacturing planning and implementation	SWOT analysis & interview	UK
Kurttila, Pesonen, Kangas, & Kajanus (2000)	Forest-certification	SWOT analysis & analytic hierarchy process	USA
Dyson (2004)	University of warwick	SWOT analysis & tows matrix	UK
Borah et al. (2017)	Basel Iii norms	SWOT analysis & tows matrix	IND
Phadermrod, Crowder, & Wills (2019)	Higher education institutions	SWOT analysis & importance-performance analysis	THA

fat, sugar and salt could be enhanced by promoting healthy diets among consumers who have not changed purchasing and consumption behaviour, by placing the label on front panels and by monitoring the production and marketing of processed foods. Vyth et al. (2012) conducted the research to verify the potential impact of eating products that meet the "healthy choice mark" standards on cholesterol levels, and concluded that eating foods that meet the front label standards of the package can moderately reduce cardiovascular risk by affecting blood lipids.

As for the promotion of nutrition intake and improvement of dietary choice behavior, Roy, Kelly, Rangan, and Allman-Farinelli (2015) postulated that collective determinants of eating behaviour include a wide range of contextual factors, such as the interpersonal environment created by family and peers, the physical environment, which determines food availability and accessibility, the economic environment, in which food is a commodity to be marketed for profit, and the social environment, in which social status (income, education and gender) and cultural milieu are determinants of healthy eating that may be working "invisibly" to structure food choice. Thus, combined with the research finding of Thorndike, Riis, Sonnenberg and Levy (2014) that food environment interventions can promote long-term changes in population eating behaviors, the foods available to people, the cost of these foods, and how they are marketed and promoted (often termed food environments) owing to their role in shaping what people eat. A great number of evidences have shown that healthier food environments are associated with greater intake of nutritious foods（Hawkes, Ruel, Salm, Sinclair, & Branca, 2020).

The icons are supposed to cover the main information in the nutritional composition table and the overall nutritional value of the food, so that consumers can easily and quickly distinguish healthy food from ordinary one. Hieke and Wilczynski (2012) performed the research targeting as German college students and the research results confirmed the significant effect of colour coding as it helps reduce the complexity of decision making.

Secondly, the practical strengths of TLSL mainly concentrated on these aspects. First and foremost, TLSL is one of the most used FOP labeling systems (Hawley et al., 2013) While the design of TLSL is relatively more concise and brief, allowing consumers from special groups such as teenagers and the elderly to intuitively refer to the content of energy elements in packaged foods in three levels when buying food, so as to better grasp various energies. Consequently, it could be summarized that compared to other labeling systems, the feasibility and popularization of TLSL is higher. Besides, the implementation of TLSL could encourage manufacturers to adjust their production with more healthy standards which is consistent with the overall goals of Healthy China Action. Dummer (2012) proposed health check items to encourage participants to reformulate existing products or formulate new products to satisfy the standards of sodium. In addition, Van Raaij, Hendriksen and Verhagen (2009) suggested that th potential impact of reformulated foods on key nutrient intake and health is obvious. Evaluation of the actual impact requires not only regular food consumption surveys, but also regular updates of the food composition table including the compositions of newly launched reformulated foods. At last, Gröfke, Duplat, Wickert and Tjemkes (2021) further reveal that multi-stakeholder interactions influence attitudes and thereby inhibit or favor the adoption of TLSL based on the perspective of multi-stakeholder. Obviously, stakeholders are one of the most significant parts of the use and expansion of TLSL in the healthy food markets. Schermel, Emrich, Arcand, Wong and L`abbe (2013) pointed out that frequency of use of different forms of nutrition marketing in Canada and the nutrients and conditions that are the focus of nutrition marketing messages so that the importance of nutrition labeling in food industry was verified.

3.2. Weakness

Firstly, TLSL only defines the extent of nutrition intake and it doesn't measure the daily intake range. Emrich, Qi, Lou and L'Abbe (2017) conducted the research of TLSL on population energy an nutrition intake levels to synthesize that improvements were seen in intakes of calories, total and saturated fat, and sodium, but not sugars, when some of the foods with red traffic light labels were replaced with similar, currently available foods without red traffic light labels. Furthermore, TLSL are designed and formulated to reduce obesity caused by unhealthy diets. The current system only contains four nutrients which are fat, saturated fat, sugar and salt which apparently, lack fat content and other beneficial nutrients such as dietary fiber and protein. This is a small deviation from the currently-implemented nutrition labeling system in China and the purpose of formulating food nutrition labels. Besides, this system lacks specific identification for special groups like teen-

agers and the elderly. Elderly need to be educated nutrition and their health dietary life to prevent malnutrition, and standard of nutrition intake should be rearranged in elderly aged 85 over considering their anthropocentric index (Bak & No, 2016). At last, Kim, Joung and Choi (2016) summarized that taste is the most important factor for college students' food choice, and taste and price are the most important factors. This indicates that the special group such as college students need clear guidance of nutritional value with attractive taste and proper price. Based on the study by Kim, Oh and No (2016), it was illustrated that as the elderly are becoming a major target market in the food industry, more studies should be conducted with this age group. Therefore, more systematic education on the topic of nutrition labels is required so that consumers, especially those ≥60, can make informed and healthier food choices.

Nathan et al. (2012) stated that the implementation of FOP should meet the provisions of the general nutrition labeling regulations and be complementary to the use of the nutrition ingredient table. In 2007, China issued the Food Nutrition Labelling Management Regulations. The nutrition composition table is a table marked with the name and content of the nutrition components of the food. The nutrition components that can be marked in the table include energy, nutrients, moisture, and dietary fiber. Food nutrition labels can also indicate saturated fat (acid), cholesterol, sugar, dietary fiber, vitamins and minerals, etc. While, the nutrition label in the nutrition label shall be indicated by the content value per 100 grams (ml) and/or per serving, and the percentage of the nutrient content in the nutrient reference value (NRV) shall be indicated at the same time.

3.3. Opportunities

In terms of policies, in the State Council's Opinions on the Implementation of the Healthy China Initiative issued by the State Council in 2019, the State Council clearly put forward a number of requirements and tasks in terms of a reasonable dietary structure. It requires that strengthening nutrition and dietary guidance to the general population, specific populations and families, focusing on places such as canteens and restaurants are needed. And then it is imperative to encourage the whole society to participate in the reduction of salt, oil, and sugar, study and improve the packaging standards for salt, oil and sugar, and at last, revise the general rules for the nutrition labeling of prepackaged foods, and promote the establishment of a food nutrition standard system.

Currently, with the improvement of living standards, consumers have gradually improved their awareness and cognition of healthy diets and health needs, and individuals who advocate healthy diets and the social environment interact with each other. Oh and Kim (2018) postulated that most interested nutrition items were significantly different by democratic factors and it could be synthesized that interested nutrient information on the nutrition labels could change according to individual specific education. Therefore, this can also provide basic data for systematic education program by nutrition label use. Specifically, Rha, Kang, Lee, and Kim (2015) conducted the research with female college students to investigate their nutrition intake and concluded that it is essential for providing nutrition education for them to promote their dietary diversity and finally, to ensure their nutrition intake by daily diets. Kim, Ahn, and No (2012) conducted the research with college students to understand the impact of their nutrition belief on their behavior intention, and they found that the objective nutrition knowledge has a better predictive effect on college students' nutritional confidence. The perceived benefits of healthy eating and the perceived obstacles of healthy eating have a significant impact on behavioral intentions, and are the conclusions of effective indicators for judging behavioral intentions.

Raine (2005) reckoned that collective determinants of eating behavior include a wide range of environmental factors, such as the interpersonal environment created by family and peers, the physical environment determining the availability of food, th economic environment which is sold as a commodity for profit and the social environment. Personal demographic characteristic (e.g., income, educational background and gender) and cultural environment are determinants of healthy eating, and these dimensions may "invisibly" impact on individual's food choices. Therefore, it could be seen that the improvement of an individual's awareness of healthy eating is conducive to the formation of a social environment for healthy eating, and accordingly, the social environment where the concept of healthy eating is popular is instrumental to improve individual's awareness of healthy eating.

3.4. Threats

Since the labels must be accepted not only by consumers but also by other stakeholders such as companies that provide labelled products and non-governmental organizations

(NGO) which are important watchdogs (Rubik, Frankl, Pietroni, & Scheer, 2007), adopting a multi-stakeholder perspective to understand divergences is critical. In order to develop proper initiatives and support sustainability, it is essential that stakeholders act collegially and can provide advice and solutions for common actions and measures (Andronie, Simion, Gurgu, Dijmărescu, & Dijmărescu, 2019). The labels do not "communicate the complexity of underlying continuous variables" (Weinrich & Spiller, 2016) and are limited with respect to the number of issues they cover (Tzilivakis, Green, Warner, McGreevor, & Lewis, 2012). On top of that, as pointed out by Bleda and Valente (2009), it was stated that firms serving the market for environmental conscious consumers have no reason to increase the value of environmental quality beyond the threshold required to gain certification. Gröfke et al. (2021) postulated that this casts doubt on whether existing labels provide adequate incentives for companies to develop innovative and more sustainable products.

Furthermore, other nutrient measures pose a certain threat to the adoption of TLSL. There are different forms of nutrients measurement. Based on the research by Khandpur et al. (2018), it was summarized the application of nutrition label on the front of food packaging. There are two methods to express the specific nutrient system, one is to label the amount of specific target nutrient of each food which the choice of target nutrient in the food is nutrient related to the health significance. And these target nutrients cover restricted nutrients and encouraging nutrients. For example, FOP may include TLSL or additional descriptive words like "high", "medium", and "low" to indicate the content level of specific nutrient containing in the food. The other is that food could be awarded with multiple signs according to the claimed standard to indicate that it has "low fat" or "high fiber", etc. FOP could also contain the energy covering in each serving of the food. And this information is expressed in th form of a percentage of daily nutrient intake (%DV) or daily intake guidelines (%GDA). Different forms of expression have diverse merits and shortcomings, and they have certain feasibility with different demanding circumstances.

It has been proved by Mallarino, Gómez, González-Zapata, Cadena and Parra (2013) that the inclusion of FOP nutrition information could contribute to improve children's awareness of the nutrition profile of products and discourage consumption of unhealthful products. Additionally, self-regulation has proven to be unsuccessful and regulation of package design of products targeted at children seems necessary, making special emphasis on the inclusion of health/nutrition claims. What's more, the study by Hagmann and Siegrist (2020 illustrated that the perceived usefulness and public acceptance were higher among the participants who became familiar with the label during the experiment than among those who did not. This result finding demonstrated that the promotion of the label can increase consumer acceptance. However, in order to achieve this objective, it requires multi-faceted and long-term work, and a certain amount of financial support. The effect of publicity directly affects the effect of policy implementation and will cause a certain threat in the short term.

4. IMPLICATION

On the basis of four dimensions of SWOT, this research combined TOWS matrix model, from the perspective of SO, WO, ST and WT to summary the implementation of TLSL strategy in the context of Healthy China Action in China.

4.1. S-O Strategies

It is imperative to maintain strengths and take advantage of opportunities. Therefore, for the expansion of TLSL and relative industry future development, relative practitioners are supposed to take advantage of policy support and relevant stakeholders' endorsement to establish a firm foundation for the promotion of TLSL in the industry. Besides, it is essential for them to widely promote the use of TLSL to customers, strengthen the maintenance of the ease-of-use characteristics of the labels. Meanwhile, the inherent design of TLSL should comply with consumers' increasing health awareness, cooperate with policy needs, and help residents improve nutritional intake and non-communicable chronic diseases such as obesity, cardiovascular and cerebrovascular diseases.

4.2. W-O Strategies

It is pivotal to take advantage of opportunities and avoid weakness. According to Chinese national circumstance and relative policy requirement, the measurement of nutrient elements should be adjusted on the basis of TLSL as well. The adoption of TLSL should be achieved in conjunction with Chinese current nutrient labeling to dent the shortcomings of unsound indicators. At last, a separate labeling system for children and the elderly should be taken into consideration.

4.3. S-T Strategies

It is significant and primary to take advantage of strengths and reduce the threats. The threats to relative stakeholders should be reduced and the positive effect scope to stakeholders should be expanded through publicity, promotion and supervision of administrative departments. In addition, through the research of relevant departments, TLSL is adjusted in accordance with China's national circumstance, and it becomes a label that is more suitable for Chinese society. Thus, the system could avoid the threat of other nutrient measurement models by using the ease of use and good implementation effects of TLSL to reduce the promotion cost of this policy.

4.4. W-T Strategies

As for strategies for the weakness and threats, it is supposed to conduct the strategy of shrinking and merging. It is necessary to adjust TLSL according to China's specific national situation, avoiding unsuitable dimensions and negative effects of negative stakeholders, and improving it in conjunction with other nutrient element measurement systems to strengthen market supervision.

Collectively, this research was conducted based on one of the qualitative analysis-SWOT analysis to understand the implementation and development of TLSL in China and the data source of this research synthesized from previous studies and policy requirements. Consequently, this study provides theoretical support for achieving objectives related to improving dietary nutrition and health in the Healthy China Action initiatives. The scope of the searched documents involves research in last two decades domestic and international. However, several studies were with the shortcomings of timeliness, research background and aspects varying from different studies. Therefore, for the future research, it is necessary to carry out further investigation in the context of Chinese society. Also, investigations and research could be carried out at different levels of consumers, stakeholders and the government. The theoretical significance of this study concentrated on that it could provide a theoretical basis and strategic foundations for realizing the goal of improving dietary nutrition and health under the background of Healthy China Action. In terms of practical implication of this research is that this study systematically summarized and analyzed the contents, characteristics and development potential of TLSL based on SWOT analysis and TOWS matrix. Therefore, relative reference and background information of TLSL could be well-established for the design and real-promotion of TLSL in China. In addition, this study can suggest practical suggestions to education field and health related institution.

While although the study has been completed, several limitations of this study should be dealt with caution and corresponding suggestions for future research in this field could be discussed. Firstly, since the promotion of Healthy China Action concluded a wide range of fields and the contents related to this specific field are limited, the analytical profundity and extent is not ideal. Thus, for the future research, it will be better to dig more detailed and specific materials for analyzing its expansions in China. Besides, relative literatures are very limited since the promotion of TLSL is still in the initial stage in China. Consequently, more researches from different perspectives regarding TLSL in China are supposed to conduct to fill this research gap.

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