

## SWEAT-EAT: COMBINING SPORTS AND TRADITIONAL FOOD PRODUCTS INTO INDIVIDUALIZED NUTRITION

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### RESEARCH ARTICLE

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#### Abstract

*Sweat-Eat is a business venture aimed at enhancing the nutritional needs of sports enthusiasts, particularly emerging athletes. Sweat-Eat, a venture led by two nutritionists, will offer a range of goods and services which include traditional food products, personalized diet planning, nutritional counseling and education, seamlessly integrated into the clients' dietary habits. Each client's nutritional needs will be catered for and met by evidence-based diet planning knowledge coming from nutrition professionals who constitute the core part of this venture. The venture's development was planned using a PEST (political, economic, social, and technological) analysis and Michael Porter's model to identify the five competitive forces of this business. The pilot location of this venture is in Kenya which was chosen because of its unique market niche.*

*The rising need of sports enthusiasts who search to improve their health and performance has led this venture to develop allowing not only a potential increase of traditional food products consumption but also supporting local agriculture promoting sustainability. The vision of this venture 'from tradition to sports' is based on the intentions to collaborate with local farmers and suppliers while promoting health and environmental sustainability. Sweat-Eat aims to bridge this gap and empower individuals to prioritize their health by consuming adequately traditional food products while achieving their athletic goals.*

**Keywords:** nutrition, athletes, diet, exercise, local.

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#### INTRODUCTION

Nutrition is a cornerstone of athletic performance, with post-workout nutritional strategies playing a crucial role in recovery and adaptation processes. Physical activity significantly increases energy expenditure and fluid loss through sweating (Benardot, 2021). Effective recovery strategies between workouts or during competition can enhance adaptive responses to fatigue, improve muscle function, and boost exercise tolerance. Monitoring regimen and diet, including the timing, quality, and quantity of food intake, is fundamental for restoring an athlete's physical fitness (Kerksick et al., 2018).

The growing interest in sports nutrition and its influence on athletic performance has led to extensive research over recent decades. This is a rapidly evolving field, with hundreds of research papers published each year. In 2017 alone, 2,082 articles were published on sports nutrition. Consequently, keeping up with the

latest literature can be challenging (Kerksick et al., 2018). Currently, new trends in dietetics are emerging, focusing on personalized diets. These include genetic studies to determine predispositions to specific foods and risks of food-related diseases (Collier, 2012), research on the diversity of human microbiota and its impact on digestion and intestinal health (Rivera-Pinto et al., 2018), and studies on individual immune responses to food antigens, which affect food tolerance and immune reactivity. The adaptive immune response, driven by lymphocytes (acquired immunity), plays a vital role in defending against infections and eliminating external pathogens in vivo (Rosenstein et al., 2020).

This research article will explore the incorporation of traditional cuisine into sports nutrition as a business venture, Sweat-Eat, focusing on a pilot project in Kenya. The aim is to provide nutritional counseling and education, and personalized diet planning, both in-person and through online resources. This venture addresses the incorporation of traditional cuisine, individual food preferences, and locally

available foods into sports nutrition aiming to enhance nutrition needs and boost athletes and sports enthusiasts' performance. The effectiveness of food choices varies with time, location, and environmental factors (Malsagova et al., 2021).

### **MATERIAL AND METHOD**

The development of the venture was done using three analysis tools, a PEST (political, economic, social, and technological) analysis, Porter's model, and a SWOT analysis. These tools were chosen to build and assess the internationalization plan of this business idea.

The PEST analysis included political factors such as democracy, stability, corruption perception, economic factors such as the evolution of the GDP, labor costs, and main sectors of economy, social factors including living standards, and technological factors such as exports and imports. These factors were obtained through secondary data gathered from online sites and the results were cataloged in a range from favorable/manageable to unfavorable/unmanageable.

The SWOT (strengths, weaknesses, opportunities, and threats) analysis was used to evaluate the internal and external factors that affect the business. The other tool used, Michael Porter's model, allowed the competitive analysis of the industry using the five forces that the model proposes: supplier power, threat of new entry, competitive rivalry, threat of substitution, and buyer's power. These forces allowed the venture proposal to notice any weaknesses and strengths to further work on them.

### **RESULTS AND DISCUSSIONS**

Based on the assessment carried out using the PEST analysis for the environmental influences of the business in the target location, Kenya, we found out that even though there is a hybrid democracy present in the country, the political stability is uncertain and the corruption on the system makes the environment unfavorable. However, economically, Kenya has a high GDP in comparison with other countries of the region.

Kenya has a current GDP of \$113.42 billions which is favorable, however, the poverty ratio is about 36% which may have an impact on our targeted population and their ability to afford the recommended food products. The

population's main sectors of economy are agriculture 17%, industry 20%, and services 46%, these data showed a favorable entry on the economy as the venture will provide a service to the clientele, furthermore, will also be linked with agriculture and industry as it will promote local and traditional food products. The living standards vary from rural to urban areas as only 31% of the population live in urban areas.

For Kenyans, health is considered in third place after income and housing, followed by education. Kenya has a negative trade balance as the money spent on importation is three times higher than the received from exportation; Kenya ranks 88<sup>th</sup> among 132 economies featured in the Global Innovation Index (GII 2022).

The SWOT analysis results demonstrated the internal and external factors of the business and the competitions it would encounter.

- The internal strengths (S) of this venture are based on the expertise of the nutritionists who will have the knowledge in general and sports nutrition and traditional and local food products, as well as the skills needed to provide effective counseling and education. Moreover, they will be the main characters of this business as they would implement the goal of mixing traditional food products and sports nutrition from a nutrition perspective.
- The internal weaknesses (W) include the uncertainty of the supply chain in the traditional and local food products as these products could be seasonal or their production stopped. Therefore, an alternative for products that meet the expectations should be planned in advance in order to achieve the clients' needs, while finding a balance between globalization of products and traditional food products on sports' diets.
- The external opportunities (O) that present for Sweat-Eat include the market niche as there are no services that offer what this venture will. Furthermore, this venture would not only be implemented in one country but will try to expand across the world,

offering traditional food products characteristics of each region. Moreover, sports nutrition as a topic is attracting more attention among sports enthusiasts and athletes, increasing the demand for this type of service.

- The external threats that this venture would face include the clientele's lack of knowledge towards nutritional sports supplements, sustainable diet planning, and traditional food products around the regions. Moreover, the competition of other businesses and the policies and regulations on health products that vary across countries could be a potential threat for Sweat-Eat.

The SWOT analysis results were effective as it showed factors that were not taken into account by the PEST analysis such as the strengths of the business itself, highlighting the nutritionist as pillars of the venture. However, Porter's model would expand further the competitive forces that the business could encounter. Through Porter's model the following five forces resulted:

- The venture's supplier power is the uniqueness of the services provided as it offers individualized nutrition implementing the consumption of traditional and local food products into the clients' diet to enhance their sport performance. Moreover, a moderate increment of price from suppliers i.e. local farmers, and an increase of power from them would be observed because of the venture's actions.
- The threats of new entry of this business include moderate entry obstacles considering the economic situation of the country; however, the distinctive services and products offered in addition to the venture's

innovative idea and individualized services could ease the entry into the market.

- The competitive rivalry for this venture is moderate to high as there is an increased demand for sports nutrition products such as protein supplements, vitamins and minerals shakes and waters, which influence the market for such products. As in the previous point, the uniqueness of Sweat-eat services could counteract the rivalry of other services.
- The threat of substitution faced by this venture includes the substitution of the traditional food products, and nutrition counseling done by non-professionals. It is important for this business to highlight the importance of credentialed nutritionist with focus on sports nutrition, who possess the adequate counseling and teaching skills to work with the targeted clientele as well as with the team behind them such as personal trainers and instructors.

- The buyer's power has a high impact as Sweat-Eat will depend on the online and direct buyers of the services and products offered. There will be an indirect impact on the demand of traditional and local food products producers and farmers as the clients would be referred to these as part of the diet plan.

Porter's model not only allowed the assessment of the weaknesses and strengths of the business but also the development of ways on how to counteract them, the main factors are summarized in figure 1.

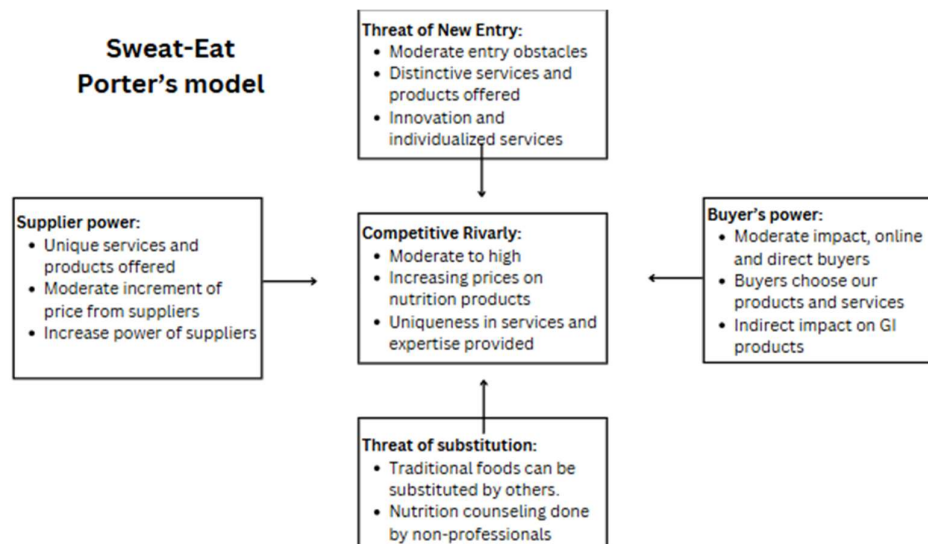


Figure 1. Sweat-Eat Michael Porter's model

## CONCLUSIONS

The study demonstrated that the implementation of traditional and local food products into sports nutrition diets through a business would be beneficial as there is a niche in the market for such needs. Moreover, the uniqueness of the venture would not only benefit the clients but also local food producers in the region.

Kenya has a great potential as a place to start the pilot program as sports nutrition is a growing topic among the sports enthusiasts and athletes in the region. The main economic sectors of Kenya could ease the entry of this business as it will influence each of them directly such as services and indirectly as agriculture and industry.

The SWOT analysis demonstrated that the venture possesses high external opportunities and internal strengths due to the special characteristics of the business. However, the threats from other businesses and the lack of knowledge from the clientele about sport nutrition concepts could be challenging to overcome.

Porter's model five competitive forces resulted on moderate to high forces for each of them, demonstrating similarities with the SWOT analysis such as the venture's power in the market because of its unique aim as well as the relevant professional capabilities that it will

offer through credentialed nutritionists with deep knowledge on the main topics: traditional and local food products, and sports nutrition counseling and education.

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## REFERENCES

- Benardot, D. 2021. *Advanced sports nutrition*. Human Kinetics Publishers.
- Collier, R. 2016. The DNA-based diet. *Can. Med. Assoc. J.* 189, E40–E41.
- Kerksick, C. M., Wilborn, C. D., Roberts, M. D., Smith-Ryan, A., Kleiner, S. M., Jäger, R., ... & Kreider, R. B. 2018. ISSN exercise & sports nutrition review update: research & recommendations. *Journal of the international society of sports nutrition*, 15, 1-57.
- Malsagova, K. A., Kopylov, A. T., Sinitsyna, A. A., Stepanov, A. A., Izotov, A. A., Butkova, T. V., ... & Kaysheva, A. L. 2021. Sports nutrition: Diets, selection factors, recommendations. *Nutrients*, 13(11), 3771.
- Rivera-Pinto, J.; Egozcue, J.J.; Pawlowsky-Glahn, V.; Paredes, R.; Noguera-Julian, M.; Calle, M.L. 2018. Balances: A New Perspective for Microbiome Analysis. *mSystems* 3, e00053-18.
- Rosenstein, A.Z.; Kondakov, S.E.; Cherevko, N.A.; Rosenstein, M.Y. 2020. *Fundamentals of*

*Immunodietology*; Technosphere: Moscow, Russia; p. 288. ISBN 978-5-94836-593-0.

Zhang, N., & Ma, G. 2020. Nutritional characteristics and health effects of regional cuisines in China. *Journal of Ethnic Foods*, 7, 1-10.