Factors Responsible For Energy Bar Consumption Among South African Consumers

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Abstract
This research article identifies the factors that contribute towards the energy bar consumption among South African consumers. In the current environment people are conscious about health and healthy food. Energy bar consumption is most popular among the consumers considering the convenience and busy lifestyles. This article centres on understanding the factors that are responsible for energy bar consumption. This study adopted the I-Change model as a theoretical framework, using three phases awareness, motivation and action to identify the factors that are responsible. Under each phase, specific factors are evaluated to understand whether awareness, motivation and action all three phases equally contribute to the consumption of energy bars. This article is one of the contributions of the authors to the literature, and also, marketers may consider these factors while framing strategies.

 Keywords : consumption, behaviour, factors, I-change, awareness, motivation, action

Introduction
Good health is a blessing for human being. A large number of people engage in regular exercise to maintain excellent health. In addition to exercise, they also take dietary supplements to support their body to function. These supplements include vitamins, minerals, protein, etc. particularly available in the form of energy drinks or energy bars. People find it convenient to take such products for a quick heel or boost the energy level of the body. The consumption of such products is increasing day by day in both developed and developing countries. There are multiple factors that are linked to influence, the energy bar consumption. The limited research efforts made to understand the factors specific to energy bar. This research study explored the factors that influence consumption behaviour regarding energy bar among consumers in South Africa. The study outcomes also help the businesses such as marketers and policy makers to understand the complexities of the energy bar consumption and take informed decisions.

According to Mathieu (2024), the report highlights that approx. 48% consumers consume energy drinks for good health, wellness, and staying active. They consider the energy product is an alternative for alcohol and can boost their energy level during busy schedules. Energy products include drinks, tablets and bars. Energy bars are very popular among consumers nowadays. (More, 2025; Energy Bar Market Size, Share and Growth Report, 2030, 2023) report valued, the energy bar market at USD 3.64 billion in 2024 globally, and it is expected to increase gradually to USD 5.93 billion by 2034. This corresponds to a CAGR of 5.0% during the projection period 2025–2034. The increase reflects the broader trend towards healthier snacking options and the convenience protein bars offered to health-conscious consumers.

The trend of healthier snacking options is taking its position at peak globally and similarly in South Africa. South African people are more concerned about their health hence explore for nutritious products. According to the Modor Intelligence report (South Africa Snack Bar Market Size & Share Analysis - Industry Research Report - Growth Trends, n.d., 2030), the approx. growth is 11.48%, which indicates that consumers are moving towards the healthy snacking options. The global energy bar market is not so wide but segmented into protein bars, cereal bars, fiber bars, organic health bars to satisfy the needs of the consumers and their preferences. The main purpose of it is to provide a quick source of energy particularly for athletes, hikers, and people with busy lifestyles.

The lifestyle and eating habits of the consumers are changing, as per their needs; meaning consumer needs to maintain stamina, as per their regular activities or health goals. The busy lifestyle in towns is one of the main reasons that influence the fact that energy bars have become a healthy choice for the consumers. However, consumers consume energy bars, but whether they are aware of the nutrients before consuming energy bars is a critical question. This requires an investigation. Therefore, this research study explores the major determinants that influence consumer behaviour. This study evaluates the behaviour of South African consumers, specifically. Furthermore, the outcome of the study will not only be an eye-opener for the consumers but also for the marketers to get the insights of the consumers preferences to penetrate the South African markets. The study examines the main factors that may shape the adoption of energy bar consumption behaviour towards healthy diets, including health awareness, social influences, pricing, and convenience.

Literature Review & Conceptual Framework
Energy bar is a healthy and convenient food item that is formulated to fulfil precise dietary requirements or health objectives, which is usually meant to provide different types of nutrients such as fats, vitamins, proteins and carbohydrates (Turner, 2023, Dhoundiyal et al, 2022). The market has expanded with rising awareness of healthy eating, dietary trends such as veganism and gluten-free diets, and the need for sustainable and ethically sourced products. It is one of the handy products that cater the busy lifestyles' demand with healthy snacking.
Fernqvist et al. (2024) provides four levels that significantly contributes to examine the understanding of food choices. These levels include the physical food environment, the social and community level, interpersonal influences, and individual characteristics. The study emphasises that these four levels are the key contributors for the consumption of food choices. Also, it points out the importance of addressing the complexities of food selection by considering time, place, and social context. Chen (2024) documented in the study that awareness, social media, pricing, advertising, and convenience significantly influence the choice of food items. Similarly, Chimezie (2023), highlighted awareness is an important factor that promotes the healthy behaviour. Consumers try to search for snacks that meet their fitness or healthy goals such as weight control, building muscle, overall wellbeing and nutrition.

Furthermore, Cammarelle et al. (2024), examines the factors knowledge, attitude and beliefs, availability are important nutrients besides social environment. (Bourke, et.al., 2024) systematically analysis of 57 studies explains attitude, social norm, behavioural intention, awareness, convenience, and psychological factors significantly impact consumer choices. Interestingly, fitness freak people who exercise a lot are prone to the energy products, such as

energy drinks and bars, to gain quick energy. Some theoretical model and framework such as theory of planned behaviour, transtheoretical model and social practice theory helps to get the insights of the factors that influence the consumer behaviour (Bourke et.al.,2024).

 Social media serves as a powerful tool for marketers by designing effective marketing strategies including influencers and advertising to promote the use of energy health products. Suvittawat and Suvittawat (2024) highlights that the marketing strategies including packaging, labelling and low processing food products influence the decision of food products. Consumers understand and have adequate knowledge about the nutritious foods; their attitude and choices are influenced by health awareness, demographic factors, and lifestyle factors (Grujić and Grujčić, 2023). Additionally, Allied Market Research (2022), highlights the rising health consciousness, changing socioeconomic needs, and time limitations to prepare nutritious foods have driven the demand for such convenience energy products. However, today consumers' busy lifestyles have fuelled the demand for convenient, on-the-go snacks.

In a similar line, another study (Gaupholm et al., 2022) throws light on the insight that eating habits are primarily influenced by social, cultural, and economic factors. This study highlights the dietary behaviour of Southeast Asian consumers. The study finds that food prices and affordability are the most significant barriers to healthy diets, affecting food security and nutrition outcomes. Another study (Jilin, 2021) highlights that consumer choices are influenced by geographical location, pricing, promotional strategies, product attributes, and psychological factors. The research emphasizes that the impact of these factors varies depending on the product category (Jilin, 2021). Additionally, the FMCG sector plays a vital role in economic growth, with increasing demand in both urban and rural markets.

Moreover, "Coherent Market Insights report (2024) projected the global energy bar market will grow from $3.21 billion in 2022 to $4.85 billion by 2030, at a CAGR of 5.3%." The industry is influenced by rising consumer demand for healthy, on-the-go nutrition options, with e-commerce playing a crucial role in market expansion. Energy bars, which offer a quick and nutritious option, are ideally suited to meet this demand. As more people move to urban areas and adopt fast-paced lifestyles, the demand for handy and easy-to-consume snacks will increase, further boosting the energy bar market.

After reviewing the literature and reports, it has been found that focused research on identifying the key factors that influence energy bar consumption can help marketers understand consumer behaviour and improve their marketing strategy. Energy bars are increasingly popular as convenient and perceived healthy options; their unique consumption patterns remain underexplored, especially in the South African context. The absence of localised studies limits the understanding of how South Africa's diverse cultural and socio-economic factors shape consumer behaviour. This gap prevents companies from optimising their product positioning and policymakers from implementing effective dietary interventions that provide the local population's approach to energy bar consumption.

A well-defined framework and model provide the direction for exploring the insights. After taking a review of different frameworks (Kasten et al., 2019), (Nusawat & Leelasantitham, 2024), (Gomez Quiñonez et al., 2016), the I-Change model identified ideal for the study of factors that influence the consumption of energy bar. After considering the review of databases from 2006- 2023, 24 studies used the I-Change model to study the consumer behaviour, digital behaviour, lifestyle; the model is chosen for the study.

Moreover, theories such as TPB (Theory of Planned Behaviour) and SCT (Social Cognitive Theory) are specifically used by researchers to study the factors that influence consumer behaviour. Additionally, the I-Change model was also considered by the researchers to explore the factors that influence consumer behaviour. From 2006 to 2023, it was found that 26 studies have been done by the researchers using the I-Change model, which is specifically used for studying consumer behaviour. The I-Change Model incorporates the importance of perceived susceptibility and severity of health issues, enhancing the awareness phase (Green & Murphy, 2014). The Theory of Planned Behaviour contributes to the model by focusing on the attitude, subjective norms, and perceived behaviour of consumers that shape motivation. Social Cognitive Theory emphasises self-efficacy and the impact of observational learning on adoption behaviour.

Graph1: Number of studies used I-Change Model from 2006 - 2023
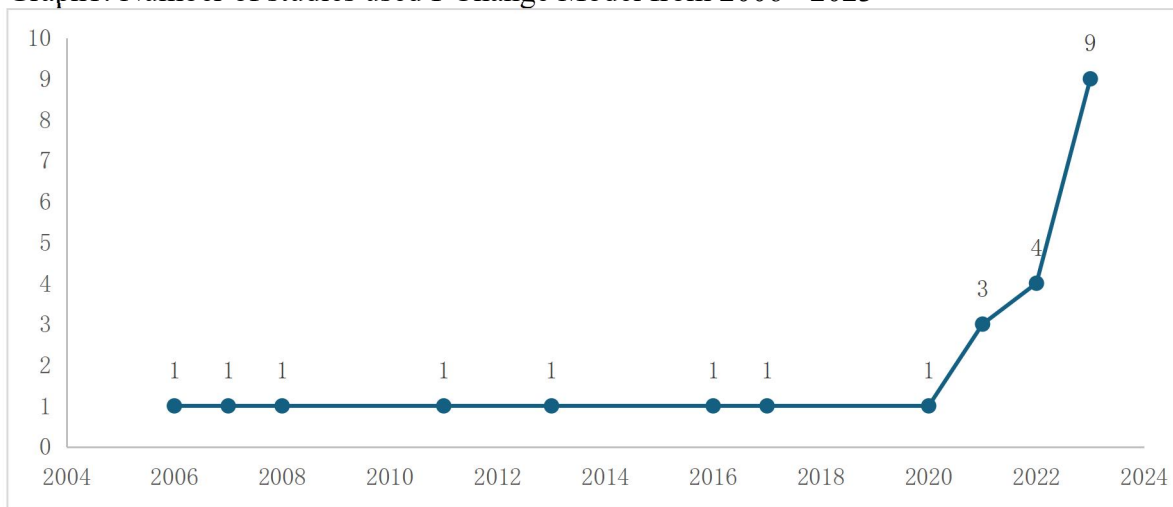
Source: Authors' compilation

This study is influenced by I-Change theoretical framework, as it offered a structured approach to the examination of consumer behaviour in relation to energy bars. The I-Change model (Kasten et al., 2019) helps to analyse consumption behaviour of the consumers who actively contributed to the study. It also underscored the importance of health awareness, affordability, and lifestyle preferences in determining energy bar consumption. In order to develop products and campaigns that were in accordance with consumer requirements and addressed health concerns, manufacturers, marketers and policymakers can gain insight into how consumers perceived and used energy bars. The three-phase model is used to outline the behaviour of the consumer towards energy bar consumption.

Source: Adapted from (Elshiekh et al., 2022)

Considering the proposed framework, the following hypothesis formulated to achieve the objective of the study:

Hypothesis (H1): Awareness phase influences the consumption of energy bars.

Awareness is one of the phases that influences the consumption of product. As per this study the awareness is shaped by the factors such as knowledge, risk perception and perception cues which is also in-line with the study (Moritz, 2024). Knowledge helps the consumer to understand the effect of their consumption whether it's helping them in boosting their energy. Additionally, risk perception provides them awareness of tangible components such as financial burden. And the third factor, perceived cues are largely relating to the policies and social campaigns. According to the study (Elshiek et al.,2022; Kasten et al, 2019), the campaigns educate an individual regarding the symptoms and risks if any and individual can take appropriate decision based on the experience. Therefore, collectively these all contributes to awareness and highly empower the consumer to consume energy bar for a healthy diet.

Hypothesis (H2): Motivational phase influences the consumption of energy bars.

The motivation phase that includes social support, self-efficacy and intention are the motivating factors. Kelly et.al. (1991) and Pfeiffer et.al. (2022) study support that motivation factors include social support and self-efficacy are one of the predictors for the behavioural change. When individuals perceive that some near one's family, friends, or peers, they start consuming energy bars and making them fit, this is one of the motivations, they think to also start having energy bar not only for fitness but also maintain energy level up at the workplace. Higher self-efficacy enhances motivation, as individuals feel more capable of overcoming barriers and successfully engaging in the new behaviour. Feel more capable of overcoming obstacles and successfully engaging in the new behaviour (Cheung et.al., 2021).

Hypothesis (H3): Action phase influences the consumption of energy bars.

This phase focuses on planning, goal setting, and executing the intended actions, drawing significantly from principles of Social Cognitive Theory. This includes self-monitoring, where individuals track their progress, and self-reinforcement, where they reward themselves for achieving milestones. Individual use observational skill to monitor and observe self and others to consume energy bar. Whether you assume yourself as role model or peers. (Cheung et al., 2021), positive reinforcement such as receiving praise or experiencing the benefits of the behaviour, can strengthen commitment to maintaining the new behaviour.

Methodology & Findings

This study employed the quantitative method using a structured questionnaire, administered with the online survey using Microsoft tool. The online survey method helps to reach a wide audience and cost effective. Additionally, random sampling was used as it facilitates the intentional selection of respondents who are most relevant to the research in question (Turban et.al.,2023; Boyd et.al., (2023). This survey covers individuals who enjoy sports from the provinces of South Africa- Gauteng, Western Cape, Limpopo, Northwest, Mpumalanga, Northern Cape, Eastern Cape, KwaZulu-Natal, and Free State. These provinces are chosen as they host sporting events internationally (South Africa Sport Directory, n.d.).

Graph 1: The online survey response overview
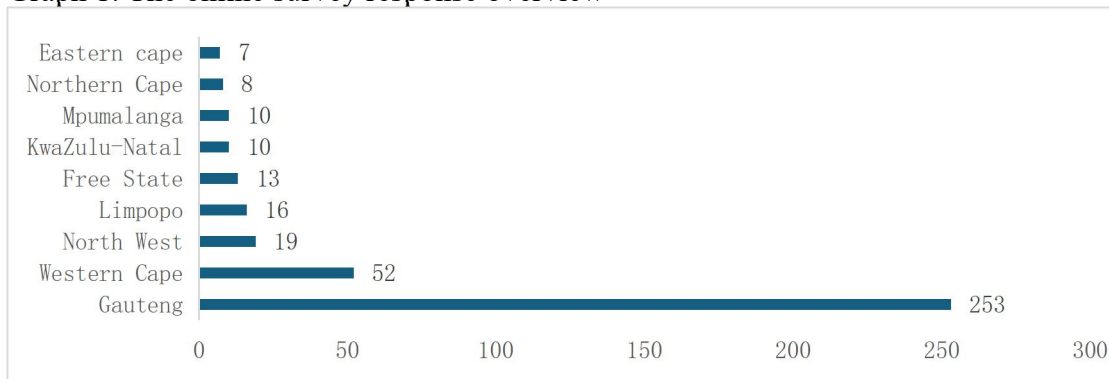
Source: Authors' compilation

Each respondent is well informed about the purpose of the study and confidentiality of their responses, including ethical compliance and encouraging candid participation. Deciding on a diverse group of sports fans ensures a thorough evaluation of South Africa's population and energy-bar consumption trends.

Graph 2: Gender Distribution
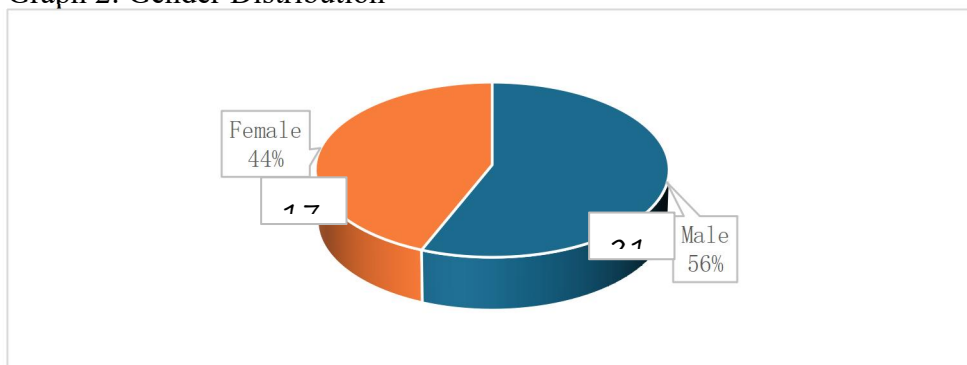
Source: Authors' compilation

This broad spectrum helps the study to cover a wide range of behaviours, preferences, and motives, so promoting a comprehensive knowledge of the elements controlling energy-bar consumption. Also, this approach improves the generalisability of the results and offers insightful analysis of the sports community. Wilson and Morgan (2007) highlight the sample size recommendations varies based on the statistical test used, and according to accepted criteria can provide sufficient strength and dependable outcomes. However, a sample size of approximately 300 and above is considered best for conducting complex analyses such as factor analysis, as it yields steady and interpretable results. This broad demographic

representation ensures that the insights gathered are applicable to a wide range of customer sectors, including both professional and amateur athletes.

Data Analysis & Findings

The survey questionnaire designed considering the I-Change model framework to achieve the objective of the study. The Cronbach alpha was calculated to evaluate the internal consistency. The Cronbach alpha is 0.74 was calculated as per the data collected, which is generally used for exploratory studies according to the study (Nunnally & Bernstein, 1994). Kanungo (1988, p116) also indicated 0.7 is acceptable reliability. The reported alpha indicates that there is a satisfactorily internal consistency among the constructs of each factor, as per the framework. Further factor analysis was performed using SPSS. SPSS is one of the tools widely used by researchers to get the systematic analysis output. SPSS is a comprehensive tool that allows different types of analysis, transformations, and outputs that adequately serve our purposes (Alili and Krstev, 2019). The analysis helps to find the factors that influences the consumption behaviour.

Table 1: Communalities

Communalities		
	Initial	Extraction
Awareness	1.000	.674
Motivation	1.000	.706
Actions	1.000	.675
Extraction Method: Principal Component Analysis.		

Source: Authors' compilation by using SPSS

The extraction communalities of the phases presents in the table 1, highlights Awareness, Motivation, and Actions exceed 0.67, shows that a significant portion of the variance in each variable is responsible for the consumption behaviour. 0.5 or higher communalities is well supported for PCA (Principal Component Analysis). These dimensions indicate robust variability and structural validity.

Table 2: Total Variance

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.055	68.502	68.502	2.055	68.502	68.502
2	.497	16.560	85.062			
3	.448	14.938	100.000			
Extraction Method: Principal Component Analysis.						

Source: Authors' compilation by using SPSS

The table 2 explains the total variance using the extraction PCA (Principal Component Analysis) method. According to Kaise's rule (1960), the value greater than 1 is retained and maintained the dimensional structure. It helps to enhance the computational efficiency, mitigate multicollinearity by reducing the complex features in two or three dimensions. The analysis presents that awareness that includes factors knowledge, risk perception and perceived cues is highly contributing phase towards the consumption of energy bar. 68% indicates that among all three awareness dominates the motivation and action.

Table 3: Component Matrix

	Component
	1
Motivation	.840
Actions	.822
Awareness	.821
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Source: Authors' compilation by using SPSS

The component matrix shows association among the variables. As per table 3, the matrix shows the factor load of 0.8 for all three. The data shows the strong correlation, which is inline as per the study done by Hair et.al. (2019). This indicates there is no over-reliance on a single variable. Although it is observed that awareness significantly influences the consumption behaviour, at the same time, motivation and action also support the phase. However, each phase tested considering different factors such as social supports, self-efficacy, intention (motivation), planned behaviour, skills, and belief (action) but none of them independently responsible for consumption behaviour. Primarily, all three are interrelated and collectively impact the consumption behaviour. No single phase dominates the behaviour.

Discussion
The objective of the study examines the factors that influences the consumption of energy bars among South African consumers. The study framework developed based on I-Change model. The framework included three main phases – Awareness, Motivation and Action to identify whether all three phases equally influence the consumption of energy bars independently.
The formulated hypothesis (H1) is proved true and expressed awareness significantly contributes to the consumption of energy bar. Awareness that is evaluated considering knowledge, risk perception and personal cues. According to Akanni (2024), awareness of the product enhances the motivation and leads to consumer action. In a nutshell, awareness alone does not drive energy bar consumption. While consumers are aware of energy bars, their knowledge levels are inconsistent, and risk perception is generally low. Marketing, branding, and external influences play a greater role in shaping consumer awareness. Therefore, all three factors significantly contribute to the awareness phase. Furthermore, the role of awareness may vary considering demographic groups as younger consumers more attracts by

advertisements and promotions compare to older consumers. This indicates that marketers must design marketing strategies to target the younger population by organising promotional sports events. Findings reported that factors significantly contribute to awareness phase hence dominates the energy bar consumption.

Another hypothesis (H2) is proved untrue, it was found that motivation influences the consumption of energy bars, but it's not independently works for the consumer desire. Motivation can be strengthened considering the social support, intention and self-efficacy. However, it found that consumers with higher self-efficacy were more likely to include energy bars in their routine. A study done by Ha et.al. (2017), also highlights that self-efficacy plays a significant role in lowering the influence on consumption behaviour. Additionally, strength and persistence in motivation is more impacted by awareness. Although all three factors play a significant role in motivating consumers, but phase is not independently responsible for influencing the consumption of energy bars. The factors included in this phase are more connected to social cognitive theory and theory of planned behaviour where self-efficacy is one of the stronger factors in the motivation phase. This also affirms Cheung et.al. (2021), social norms influence the consumption behaviour and younger population motivated by peers and marketing advertisements.

Lastly the hypothesis (H3) is also proved untrue, action is also not alone responsible for consumption behaviour. Action includes planned behaviour, skills and belief, which leads to affordability and convenience. In the similar lines, Dono et.al. (2021), highlights strategies that alone focuses on action fails to maintain behaviour change. Consumers consider energy bars as one of the affordable and convenient products to consume into their regular diet. The findings reported that action phase is associated with both knowledge and motivation. The higher knowledge leads to motivation and motivation encourages towards action. Consumers set their fitness goals and decide the number of energy bars they needed. Marketers may design strategy that must include the triggers for consumption that may influence the consumers. They should also clearly highlight the energy bars caloric information. Consumers take action considering their health goals, nutritional needs and lifestyle. To summarise the analysis, all three phases are responsible for influencing the consumption of energy bars and awareness phase is highly contributing phase. The outcome is in line as per the study ((Han et al., 2025) psychological motivation and environmental interventions significantly promotes the consumption behaviour besides the social norms, convenience and sensory experience.

Conclusion & Future Scope

This study concludes all phases together influence energy bar consumption behaviour among consumers from the nine different South African provinces. Respondents' decisions towards consumption are identified based on the health needs, supplements and convenience, which is inline as per the literature reviewed. Considering the findings, marketers and manufacturers may focus on to enhance the consumer engagement and product accessibility by generating more awareness that can motivate the consumers towards the consumption of energy bars. Marketers must enhance awareness by highlighting the nutritional benefits including the potential risks; if any. This awareness will help consumers to take informed decisions. Moreover, marketers can also focus on effective branding by promoting the product by athletes and sports events. Manufacturer may come up with different segments of a products such as Choco flavour, protein bars, sugar-free bars, etc. In nutshell, the study underscored the complex behaviour of African consumers and their decision-making towards energy

consumption; marketers and policymakers may educate and enhance sustained engagement for the product like Energy bar.

Additionally, this study provides valuable insights into energy bar consumption behaviours in South Africa, highlighted three key determinants awareness, motivation, and action based on the I-Change Model. However, other factors, such as price, brand preference, taste, and accessibility, may be explored in detail.

Future research can examine the factors by applying a mixed technique that is quantitative and qualitative to gain more insights and patterns that can add value in creating a marketing strategy. Additionally, may also be explored rural and lower-income consumer segments to understand how affordability and accessibility impact the purchasing decisions of energy bars.

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