

Drivers and Barriers in Fish Consumption: Perspectives for Entrepreneurship

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Most Indians have a positive attitude towards seafood and consider it as an important part of healthy and balanced diet. The annual per capita consumption of fish for the entire Indian population is estimated at 5-6 kg whereas for the fish-eating population it is found to be 8-9 kg. Average annual per capita fish consumption is highest in Kerala state at 30 kg which is very high compared to that of other states of India (Shyam, *et al.* 2015). Issues of fish adulteration have been widely discussed by media and have created an increased health, safety and quality consciousness among consumers. These issues have created new drivers and barriers to fish consumption with fish consumers changing their fish purchase behaviour and market choice. The article discusses the emerging drivers and barriers to fish consumption using 'Theory of Planned Behaviour' (TPB) as a theoretical base. Later, the factors identified as influencing fish consumption were consolidated into a framework of fish consumption.

Theory of Planned Behaviour

The theory of planned behaviour (TPB) was introduced as an extension of Theory of Reasoned Action (TRA). The underlying concept of TPB says that person's intention to perform certain behaviour, which is defined as people's motivation, including the willingness to perform; is a latent variable and this variable is dependent on attitude and subjective norms (Ajzen, 1991; Petrovici, *et al.*, 2004; Saba & Vassallo, 2002, Bonne *et al.*, 2007).

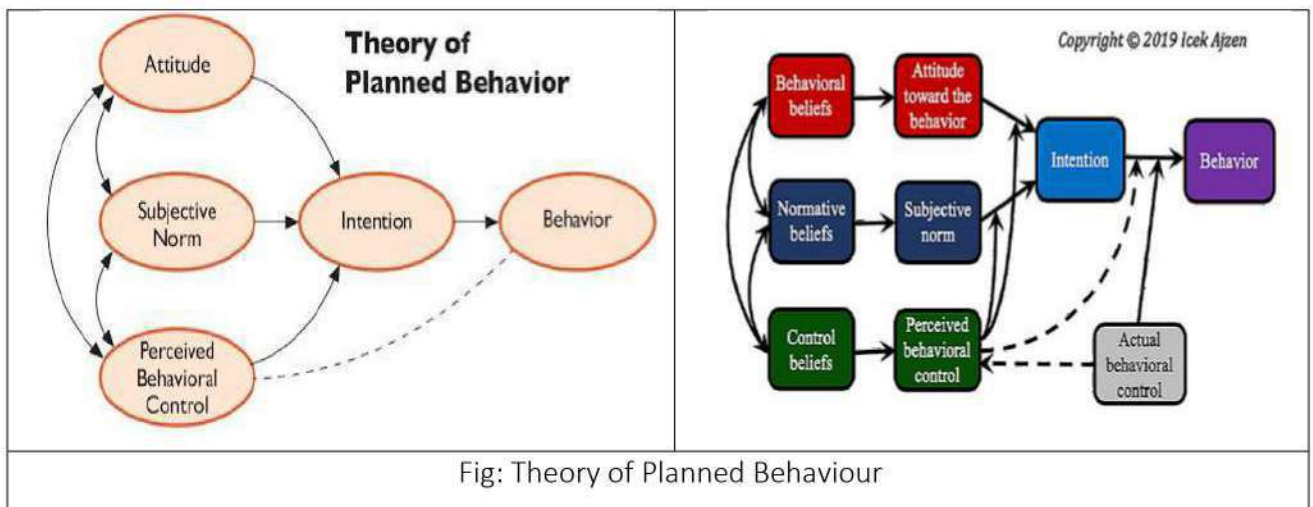


Fig: Theory of Planned Behaviour

The perceived behavioural control (PBC) as the third construct is the extension of the TRA model to develop the TPB model. The unique nature of TPB model is that it considers the noneconomic factors, which are overlooked in traditional economic models (Petrovici, *et al*, 2004).

Drivers and barriers to fish consumption: factors to be considered by entrepreneurs

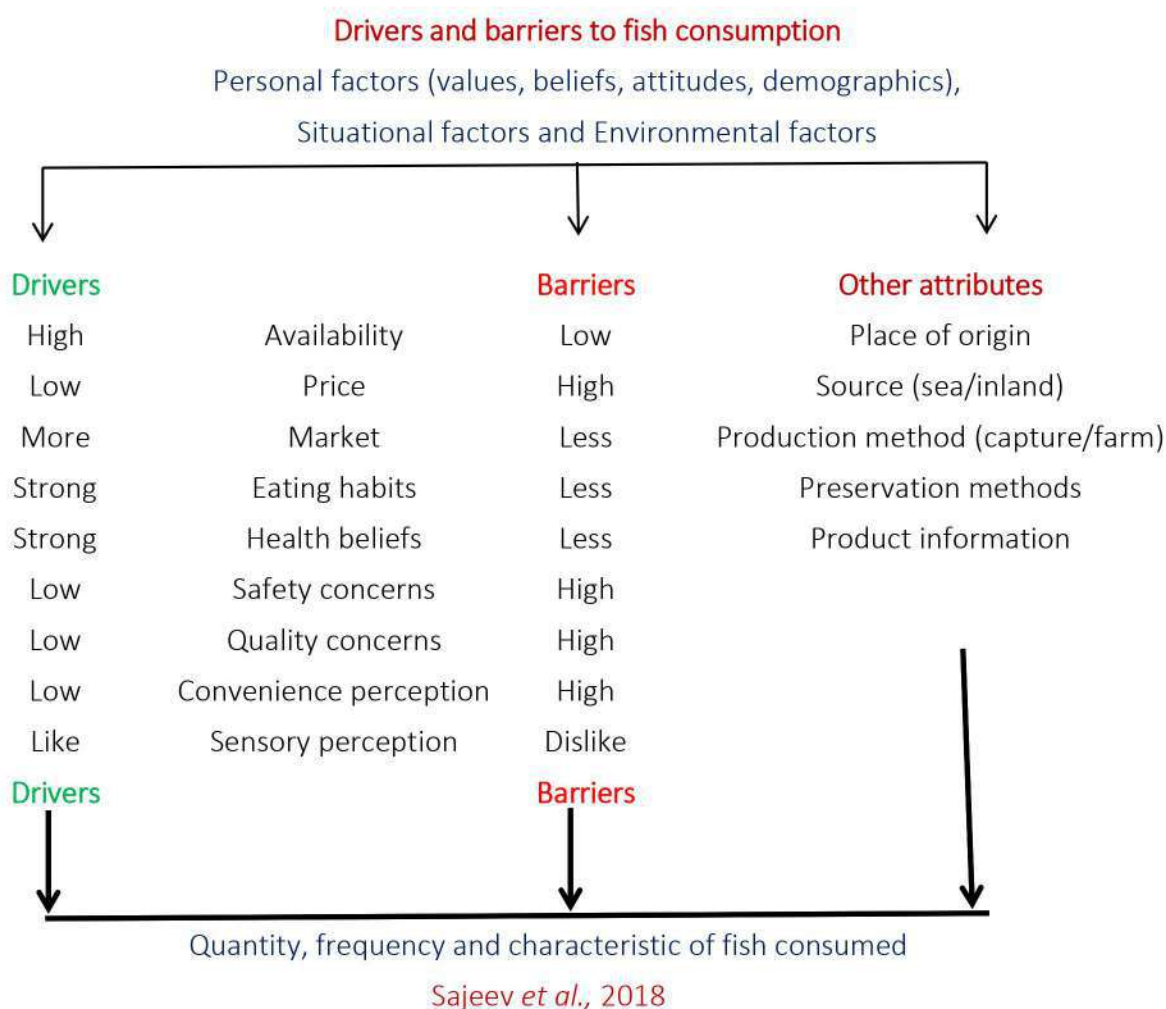
Empirical evidence shows differences in the use of information sources by consumers depending on the food product, the communicated information about the food product and the potential health or safety risk of the food product (Gutteling and Wiegman, 1996; Jungermann *et al.*, 1996). With respect to fish, consumers mostly use personal sources of information, such as fishmongers and family and friends (Pieniak *et al.*, 2007). Pieniak *et al.* (2010 a,b) identified knowledge as a relevant determinant of fish consumption. Consumers with a higher level of knowledge about fish were found to eat fish more frequently. Knowledge studies focused mainly on production aspects, whereas consumer information and education campaigns have mainly been focused on the health and nutritional benefits of fish, as well as on convenience issues acting as barriers to consumption (Olsen, 2003; Verbeke and Vackier, 2005). Olsen (2004) identified four salient beliefs reasonable in forming seafood / food consumption attitude as: taste, distaste (negative affect), nutrition (Steptoe *et al.*, 1995) and quality / freshness. After the taste issues the nutritional aspects are the second prominent factor that affect consumer's food attitude, it is directly related to health and healthy eating behaviour (Olsen, 2001). The quality of the fish/seafood freshness is another prime determinate. In this regards, frozen fish are treated as "non-fresh" "bad quality" "tasteless" "watery" "boring" (Olsen, 1998). Olsen in 2004, found price, value for money and household income are not barrier in seafood consumption, while Verbeke & Vackier, in 2005, reported that price negatively affect the fish consumption attitude.

Fish consumption: feedback for entrepreneurs from consumer behaviour studies

A study on knowledge and perception of fish consumers with respect to health benefits of fish consumption, safety and quality of fish and major drivers and barriers to consumption was done among consumers in Kerala State, India. The state was identified for the study due to its predominantly high fish consuming population having annual per capita fish consumption rates higher than global average. 'Transreg' procedure revealed that for 'price of fish' was the most important driver or barrier in Kerala. When the coastal and non-coastal districts were compared,

there was marked difference in the drivers and barriers with 'Source of fish (marine/inland)' being the most important driver in coastal districts while 'Safety of fish' emerged as the most important driver for consumers of non-coastal districts. For consumers in Ernakulam; 'Source of fish (marine/inland)' was the most important driver while in Kozhikkode 'health benefits from eating fish' acted as the biggest driver. In Palakkad 'place of origin' of fish was the most important driver while 'market accessibility' was the most important driver in Kottayam.

A study on six major tribes of Wayanad, Kerala; in which data were gathered from 200 tribal households covering different socioeconomic backgrounds, identified that Adiyar followed by Vettakuruman tribes had highest per capita fish consumption. While Sardine is the most consumed and preferred fish among Wayanad tribes, the percapita consumption (1.03kg/month) was estimated far below the Kerala average. Price of fish ranked as the most important barrier of tribal fish purchase and consumption while the 12 determinants of fish consumption analyzed were found highly associated with the health values of tribes.



In another study conducted among urban consumers of Kerala, Conjoint analysis revealed that the factors like 'place of origin of fish', '24x7 accessibility' and 'sensory perception' were the most contributing drivers while 'price of fish' and 'availability of favourite fish' were the most important barriers to online fish purchase. The review of the drivers and barriers to fish consumption using 'Theory of Planned Behaviour' as a base provided a framework for quantity, frequency and characteristics of fish consumed (Sajeev *et. al.*, 2018). Personal factors like values, beliefs, attitudes and demographics had huge influence on fish consumption. Factors like availability, price, market, eating habits, health beliefs, safety and quality concerns and sensory and convenience perception acted as both driver as well as barrier in varying degrees.

Fish consumers mostly use personal sources of information such as fishmongers and family and friends to arrive at a purchase decision. Consumer knowledge is an important determinant of fish consumption. Consumer information and education campaigns have mainly been focused on the health and nutritional benefits of fish. However, convenience issues (such as fish preparation, quality evaluation and fish species) have been found as an important barrier to fish consumption. Other attributes like place of origin (local/outside), source of the fish (marine/inland), production method of fish (capture/farm), preservation methods (frozen/chilled) and product information (information available/not available). All the above factors in combination decide the quantity, frequency and characteristic of fish consumed. Hence the most important drivers and barriers to fish purchase identified among the above studies has to be considered by existing and upcoming entrepreneurs.

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