

Review

# The social media and digital platforms contributions towards impacting the consumer purchasing behavior of aquatic foods products in Egyptian market

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**Abstract:** In recent years, there has been growing interest in how social media and online platforms influence consumer purchasing behavior in the aquatic foods industry. This review focuses on digital innovations and their impact on consumer trust, engagement, and loyalty through the integration of advanced data analytics, e-commerce, and augmented reality (AR) marketing with traditional channel strategies. By profiling Egypt's aquatic food market, the paper identifies challenges such as misleading information provided to consumers and fragmented markets, while highlighting opportunities including technology adoption, sustainable market development, and capacity building. The conclusions emphasize the importance of blending offline and online approaches and adapting communication strategies in response to evolving consumer needs and increased market competition. This study provides practical recommendations for change agents seeking to integrate sustainable marketing initiatives with consumer values.

**Keywords:** aquatic food retailing; social network; consumer preferences; sustainability; digital technology; media platforms

## 1. Introduction

The global aquatic food industry is undergoing significant transformation, driven primarily by advancements in digital technologies and evolving consumer preferences. These technological improvements have reshaped societal relationship dynamics, particularly in business-to-market interactions, resulting in innovative marketing approaches. Seafood has become a significant sector in Egypt due to increasing consumer interest. With the growing adoption of social media and e-commerce platforms, companies are leveraging these tools to enhance both the accessibility and presentation of their products in ways that resonate with modern consumers [1].

Social networks and internet businesses offer unique opportunities for customer orientation and information sharing. Through these platforms, brands can create customized messages for specific audience segments, thereby building essential brand loyalty. Additionally, augmented reality (AR) and virtual reality (VR) technological solutions facilitate the delivery of compelling value propositions, such as virtual tours of sustainable seafood sourcing operations or interactive recipe demonstrations. These innovations not only enhance consumer confidence but also elevate brand reputation as pioneers of healthy, sustainable practices in the competitive aquatic food sector [2].

Despite digital transformation advancements, the Egyptian aquatic food industry faces several challenges. Misinformation regarding seafood quality, sustainability, and production sources can negatively influence consumer perceptions, while quality

inconsistencies throughout the supply chain complicate seafood marketing. Furthermore, market fragmentation resulting from diverse customer needs and varying digital resource accessibility creates difficulties in developing coherent marketing strategies. Addressing these challenges requires a thorough understanding of the market environment and implementation of solutions aligned with fundamental market principles: transparency, stability, and ethical communication standards [3].

This review aims to investigate how social media and digital platforms impact consumer buying behavior in the Egyptian aquatic food market. By analyzing current marketing trends and presenting comprehensive new approaches, the study seeks to develop effective solutions for industry challenges. The findings reveal that enhancing synergy between traditional and digital media can achieve superior marketing communication objectives. In the long term, these insights will help the sector attain sustainable development by strengthening consumer trust and loyalty while promoting practices aligned with sustainable advancement principles and transparent information disclosure [4,5].

## **2. The influence of media on food market**

### **2.1. A framework for evolution of consumer engagement**

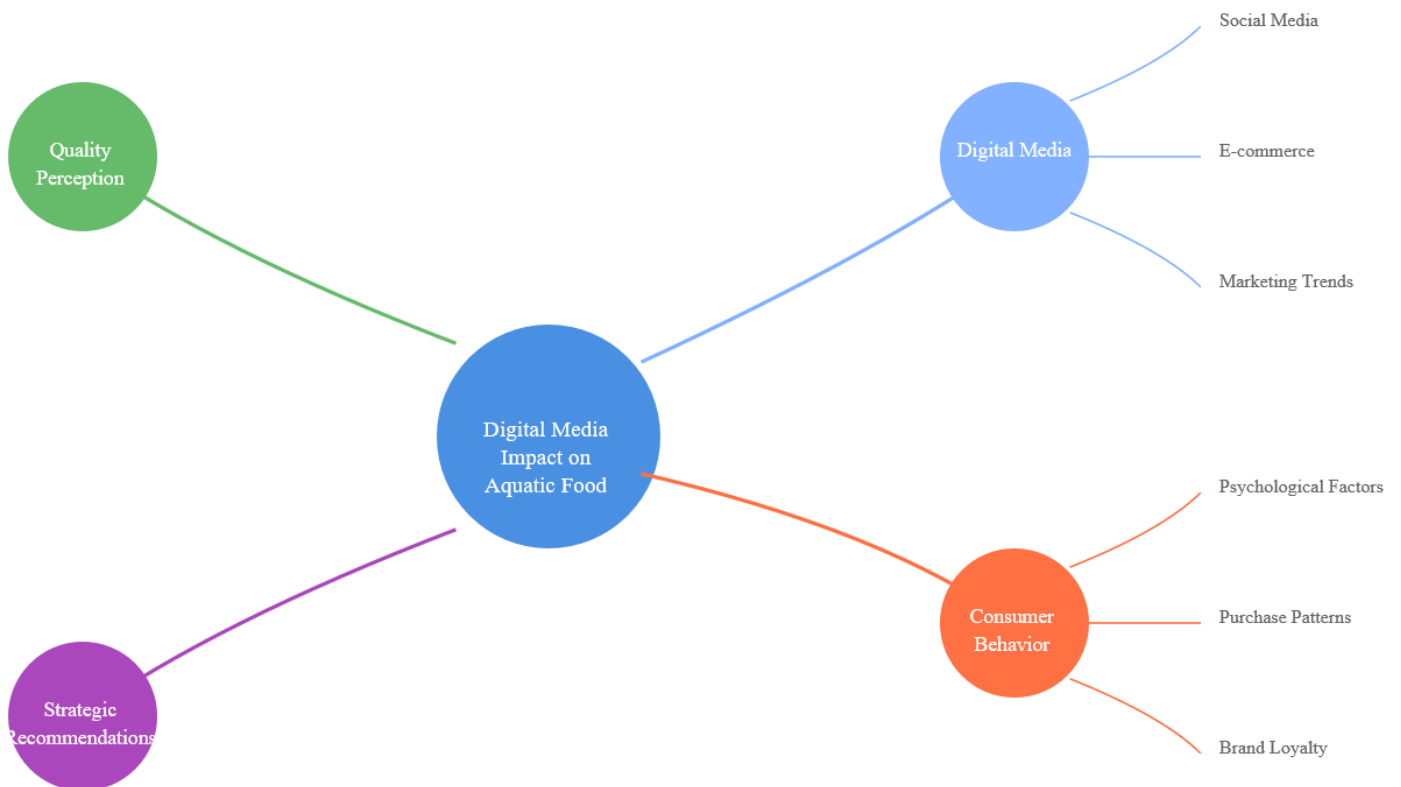
Consumer engagement has proved to have changed over time slowly, from the basic model of just a uni-directional model to more of a multi-directional model characterized by the new technologies. In the past, engagement was solely on printed media, radio, and TV commercials, whereby the consumers were just classified as audiences. While the period up to the early 2000s saw consumers as spectators and viewers passively observing a brand, the new era of the internet and social media engaged consumers as active players and posters through comments, reviews, and other such content. This evolution has greatly shifted the interaction between business and consumer with more relevance towards immediacy and individualism; however, in today's world, the interaction mainly occurs through artificial intelligence, via bots, and customer relationship management interfaces that attend to the needs of the modern consumer based on their activities and choices [6].

This has been complemented by the emergence of omnichannel marketing, which has tried to combine both online and offline brand contact points. Mobile applications, popular social networks, and augmented reality have added interactivity and placed much power into consumers' hands and their brand experience. Moreover, ethical concerns along with transparency gained significant importance as consumer values were followed by observed practices here, business practices. For example, firms that apply sustainably focused, diverse, and genuine marketing strategies will find the consumers' commitment more stable. This change is ongoing and speaks to the requirement for marketing messages to be fluid and be created with the understanding of changes in technology and trends in customer behavior [7].

Consumer engagement today has been shaped by technology and increased availability of the digital platforms. With reference to the historical backgrounds of engagement, the earlier models of engagement were more or less mercantile in nature, mainly engaged in product or service providing rather than a long-term customer engagement model. The new digital age brought in an engaging factor as several of

the Facebook, Instagram, and Twitter platforms allowed the consumers to speak or express themselves in relation to their experiences and feedback with the branded content and even co-create content. They have moved from the traditional ‘transactional’ approach to marketing, and more focus is now placed on having a long-term ‘relationship’ with the customer. Nowadays, clients look for brands that share the same viewpoints and want the companies to be active and answer questions or complaints [8].

Additionally, both the advanced analytics and machine learning have helped organizations to be in a position to predict consumer behavior and thus create better ways of engaging consumers. Marketers today use big data to categorize their target market and message them appropriately at all stages. Promotion methods that are used include reward-based programs and fun, interactive campaigns with consumers and clients as a way of keeping them engaged and creating emotional bonds. However, a new dimension of hedonic operations has been offered by virtual and augmented reality, which makes consumers get a “feel” of the products they wish to buy by having a real-life experience of how the products feel. These developments underscore the process through which the consumer engagement process is constantly perpetuated, thus underlining the need for businesses to continually adapt to new forms of engaging with consumers in view of the changing expectations and choices [9]. **Figure 1** shows the main research topics and their interconnections.



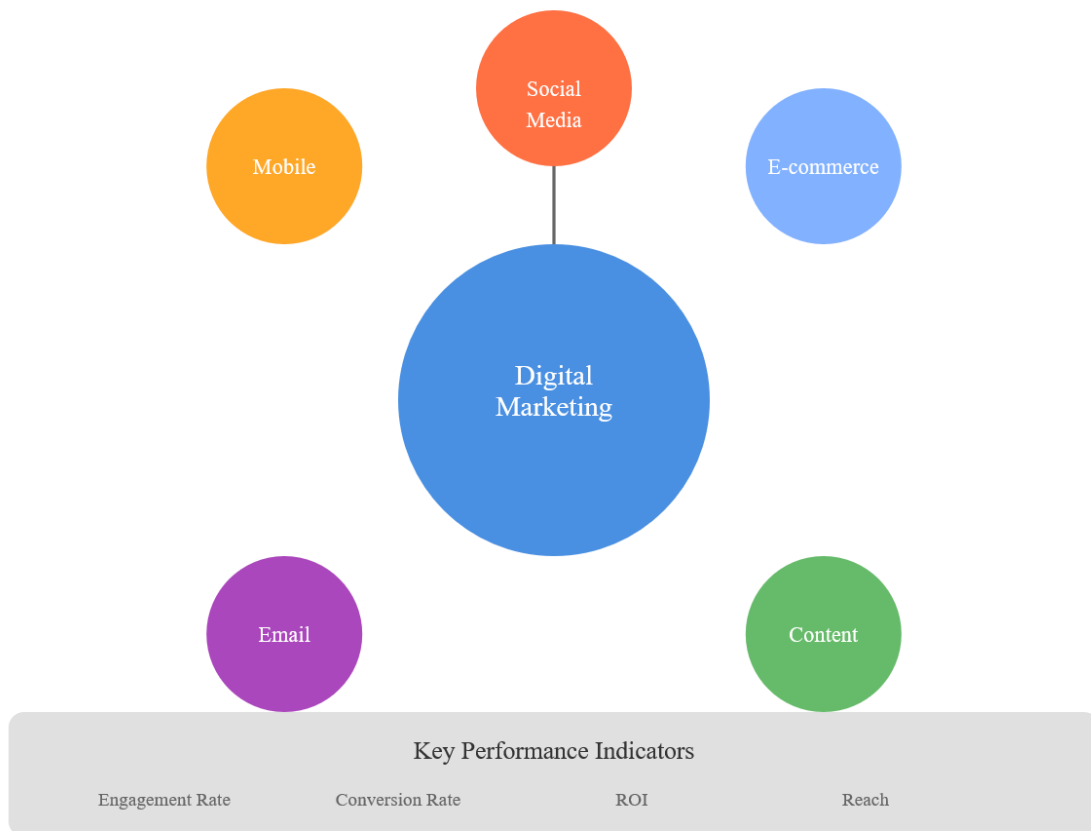
**Figure 1.** A mind map showing the main research topics and their interconnections.

## **2.2. Current trends in social media marketing**

Social media marketing is seemingly transforming, of which its transformation is informed by the fluidity of consumers and the development of technology. A prominent trend is the rapid emergence and popularity of short-form videos, including TikTok, Instagram Reels, and YouTube Shorts. These formats help brands address the dwindling time consumers are willing to give to content marketing because they're interesting, brief, and offer brands ways to present products, share stories, or tell jokes. The second trend is the use of influencers that cooperate with brands to promote their products or services and gain credibility. They are tightly linked with the target consumer groups and, as a result, have greater interaction with them, specifically micro and nano influencers [10].

Personalization is another key trend that defines the strategies of the SMM (social media marketing). Brands use sophisticated analytics and mainframe computations to provide material that matches the buyer's predilections, making the experience much more personalized. First, micro-moments (brief periods when people turn to mobile devices to satisfy immediate needs) are the main trend of the year; second, social commerce, or shopping within social media, is the expansion of social media platforms into marketplaces. Facets like Instagram Shopping and Facebook Market help reduce the distance between concept, consideration, and purchase, allowing consumers to search for, browse, and purchase products within the platform. This kind of convergence between engagement and commerce clearly shows the role of social media in business development [11].

Technologies like augmented reality (AR) and artificial intelligence (AI) are improving and adding to the social media marketing tools. It is noteworthy that most AR features allow try-ons of beauty and fashion products and thus increase consumer trust in decision-making. Live chat and conversational interfaces also create an opportunity for brands to be present demonstrably in consumers' lives, and predictive analytics allow for proper anticipation of consumer needs. Furthermore, the content that is temporary, such as Instagram stories or Snapchat snaps, has a quality of time sensitivity, triggering the action immediately. However, amidst these developments, specifications of ethical aspects are emerging. More and more customers expect to know how their data is used and whether the content they read is real. False and spam advertising, with references to being environmentally friendly, and advertising that invades citizens' privacy is more critically examined, calling for the brands to come to better standards of truthfulness and corporate social responsibility. Moreover, there are ongoing trends towards the development of community and open paradigms, as people tend to share common values, which affect the choice of platforms. Thus, the brands that follow these trends to the maximum can use the potential of social media marketing in the context of the increased competition and rapidly evolving technologies [12]. **Figure 2** shows digital marketing channels and the interconnected marketing approaches.



**Figure 2.** Digital marketing channels showing the interconnected marketing approaches.

### 2.3. Interconnection of electronic commercial systems

The adoption of e-commerce within the aquatic food sector has revolutionized the manner in which seafood and all other aquatic products are marketed. A few years ago, people could buy fish mostly in traditional fish markets or in specialized fish stores, whereas nowadays, by using the Internet and various delivery services, consumers are provided numerous opportunities for ordering seafood from various categories, including fresh, frozen, and value-added fish and seafood products through specialized delivery websites, grocery apps, and major platforms like Amazon Fresh. They offer the easy and alternative way to meet the increasing consumer needs for food that is cleaner, safer, and more sustainable. Real-time information regarding product availability, detailed descriptions, and sustainability credentials enhances communication and builds consumer trust [13].

Also, overall e-commerce platforms provided further the opportunity for direct-to-consumer (DTC) in the seafood industry to avoid supply chain channels. This model also guarantees fresher products, thereby reaching the consumer in many cases directly from fishers or processors in hours. Also, the improved cold chain and packaging systems in the cold chain network have dealt with the difficulties of perishability in aquatic food products. It has also given small, single-product-level producers a chance to access larger markets, which has been a stronghold of large, well-developed retailing organizations [14].

The overall efficiency of the e-shoppers is gradually being optimized by digital innovation to improve consumer experience of aquatic food products. Details such as the genre of the customers preferred products depend on these features, including Artificial intelligence and machine learning algorithms help in recommending products based on aspects like past purchases. Additional services, for example, online cooking lessons or proposing recipes, help to build consumer interest and higher user interactivity. In addition, service delivery channels of seafood products are developing into subscription-based systems, through which customers receive regular shipments of their favorite products at given intervals conveniently [15].

Sustainability is also a major talking point, and there is information presented about where products are sourced, fishing techniques, and carbon impact. This also increases visibility with social media and online marketing adverts, which persuade the consumers to shop for aquatic products. These innovations not only streamline the purchasing process but also enhance consumer awareness and foster buyer loyalty. The aquatic food industry, especially in the developing countries of the world, has been identified as a strategic sector in enhancing food security and job creation, as it is now apparent that the world's population is moving towards value addition to its diets, where seafood e-commerce is now seen as a strategic and key means for supply chain innovation and sustainability [16].

#### **2.4. Effects of e-business on the conventional marketing channels**

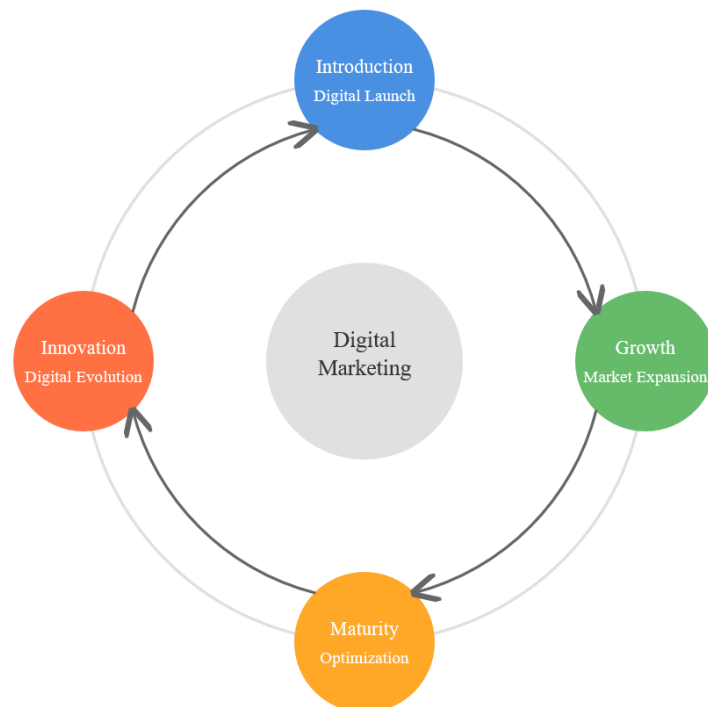
The marketing channels have undergone a drastic change with the introduction of electronic commerce in the aquatic food industry thus creating a need to look at marketing in a different perspective. Conventional techniques of seafood marketing included the use of physical facilities for marketing through shops or retailers and in many cases directly to restaurants or supermarkets. Although efficient, these methods restricted consumers' choice to many products including fresh seafood, particularly in areas where this was not available locally. In the beginning, seafood products are bought through intermediaries such as middlemen, but with e-commerce, these products can directly be delivered to customers. This change not only benefits the consumer but also provides producers of Consequently, previously distinct categories like in-store promotions increasingly appear alongside digital advertisements, influencer endorsements, and content marketing on social media platforms [17].

Additionally, the direct customer selling model that has been initiated by the e-commerce platform has helped the seafood producers to gather customer information that before could not be obtained from other marketing channels. This data helps in developing more refined market segmentation techniques as market conditions can be better understood by segment priorities and buying profiles. It also helps brands convey their sustainability messages and product sourcing, which today are essential features for the populace. As effective as conventional networks may still be, particularly in the process of local brand familiarization, the digital channel has become the main driver, which puts pressure on traditional operators to adopt at least the e-commerce segment or remain irrelevant [18].

Not only are the marketing techniques of e-commerce platforms being shifted or altered, but also the supply chain within the aquatic food industry is being altered as

well. The conventional seafood distribution system had many players in the supply chain, ranging from the wholesalers, distributors, and retailers who offered various mark-ups to the final price of the seafood products. This is not like the case with e-commerce because producers are able to sell their own products without having to go through these intermediaries. This model has several benefits: First, it creates savings on both supply and demand sides; second, it contributes to product freshness through minimizing the middle links' participation; and third, it can be quickly adapted by producers with the medium and small sizes of productions [19].

The shift to online sales means that there is a need for investment in the back end or logistics and packaging and customer service are core to the quality of perishable goods such as seafood in transit. Many stores involved in a traditional marketing and a distribution of products do not effectively facilitate the logistic chain requirement particularly concerning the cold product chain. At the same time, it disrupts the system because it means that the industry of aquatic food has a chance to become more efficient. Established industry players are developing e-commerce capabilities to remain competitive, leveraging digital technologies and expanding online platforms to capture growing consumer demand for convenience, variety, and sustainability [20]. **Figure 3** shows product lifecycle highlighting the circular nature of digital marketing evolution.



**Figure 3.** Product lifecycle showing the circular nature of digital marketing evolution.

### 3. Consumer behavior and media influence

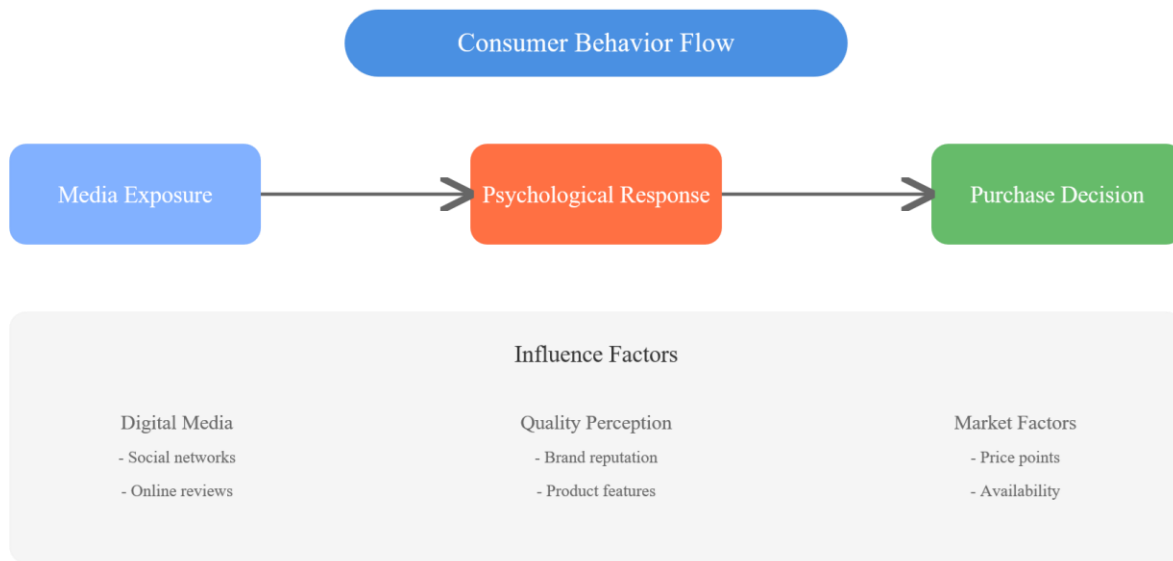
#### 3.1. Psychological factors

Human emotions are very critical in the consumer purchasing process since they are a major determinant of the consumer buying process of food products, including

the aquatic products. Another psychological factor that affects consumer behavior is perception, where the consumer deciphers messages about products or brands. This type influences perceptions by offering only selected materials such as ads, reviews, sponsored content, or recommendations of influencers on digital/social media. These forms of media have an impact on how the consumers perceive a product's quality, value, and importance. For instance, media advertising communicates issues to do with sustainability and ethical sourcing in seafood production to help consumers differentiate a high-value and ethical product, thus influencing their buying behavior [21].

Motivation is a second factor in psychological systems and depends upon two types of motivation: internal and external. Pursuant to consumers' self-interest, consumers may be mainly driven by health factors or by a sustainable food consumption plan or other aesthetic preferences with regard to aquatic foods. Secondly, extrinsically, social media and advertising promote motivation that is associated with status or trends. Media communications that focus on the new miracles of seafood or the superior quality of some species make consumers think that consuming such goods will allow them to meet their self-reference or social norm. Other cognitive biases include the bandwagon effect, where people make decisions influenced by other people in the same media. The prefiguring of seafood every time a person uses his/her social account or comes across an internet advertisement can positively influence the person into believing that eating seafood is fashionable or healthy [22].

Apart from perception and motivation process, emotions are also involved in consumer behavior, especially in the food sector. Verify that feelings elicited by advertisements, for instance; placing seafood meals in a family setting or as healthy products emotionally bond people to the product. These are emotional appeals which, perhaps aided by media, ensures that consumers link positivity with the intake of aquatic food products. In the same regards, it is apparent that social factors play an important role in influencing the buying processes. Media refers primarily to the social media, which serve as a source of the social norms and expectations, as people tend to follow the examples of other individuals, role models or popular opinion leaders. Consumers tend to duplicate the observed behaviors when seafood is depicted as being friendly to the environment or socially responsible which in turn fuels consumption trends. Thus, knowing the psychological aspects of consumer behavior becomes crucial for developing the appropriate marketing message which will influence target consumers and lead them to consistent brand choices [23]. **Figure 4** represents consumer behavior process and influence factors.



**Figure 4.** Consumer behavior process and influence factors.

### 3.1.1. Brand perception and loyalty

Brand perception indicates how consumers are likely to perceive and interpret the value, quality, or reputation of a brand. This perception depends on marketing crusades, interpersonal experiences, and word of mouth. When comparing brand perception of aquatic food products touching priorities such as freshness, sustainability measures, and ethics of sourcing, the brand perception differs significantly. Of these perceptions, media, especially social media, advertisements, and word of mouth are prominent to create such views. For example, a brand that communicates ideas of sustainable, sensitive, and quality fishing and seafood will build a perception of dependability and social accountability that appeals to conservationist buyers. Consumer perceptions also include the whole issue of packaging and presentation and service delivery by the company or brand. It helps to uphold a positive attitude towards a specific product or brand, whereas a negative experience will work against the brand [24].

Brand loyalty, which concerns a consumer’s predisposition to choose a given brand based on competitors’ brands, is closely related to brand association. The primary motivation of consumer loyalty is an emotional affiliation, trust, and perceived added value. Research also supported that where consumers have a favorable disposition toward a brand, they are likely to repurchase, regardless of other available choices [25].

Brand loyalty in the aquatic food industry therefore entails the use of marketing management techniques, quality control, and customer relations. Social networks and Internet shops offer the opportunity to create brand relationships with the consumers to support the values of the brand. To maintain consumer loyalty, the following measures can be blended: the loyalty programs, the personalized offers, and the transparent communication. For example, a seafood brand should be able to give offers such as discounts, recipes, or sustainability information to their customers; this cements the bond that customers may have with the brand under consideration.

Further, feedback that is a closed loop, which involves consumer review and feedback to the products, will improve loyalty as a result of showing consumers that their input is valued [26].

Also, digital innovation, which includes the use of artificial intelligence for targeting a specific market and delivering the necessary backup in the form of constant and customized service, is a very significant factor that helps a lot in creating brand loyalty. For instance, a seafood company's brand may employ predictive analytics to notify the customer of suggestions based on previous purchases, improving customer satisfaction. vigorous positive brand attitude, consumer interaction with the brand, and its halo effect, which makes it compatible with their values, guarantee continual patronage of the brand by consumers over other brands [27].

### **3.1.2. The quality expectations in consumer behavior**

Quality expectations encompass the standard that consumers feel is the expected standards of the product they are to purchase. These expectations can be based on prior experience, company image and marketing communications, perceived service quality and the perceived quality of the good. Manufacturers can also try to label their products and materials with sustainability certifications like the MSC (Marine Stewardship Council), through which customers expect that the brand sources seafood sustainably. However, such things as packaging, labeling and especially information disclosed on the source of an ingredient can either raise or lower these expectations. Some of these expectations come from the media, particularly social media since new products and brand messages bombard the consumers and lead to high expectations regarding quality products [28].

Lack of quality or failure to satisfy customer expectations is likely to result in bad word of mouth and reduced sales volume. This is critical for aquatic food products, particularly because consumers are very sensitive to any matters surrounding their perishable nature and safety. To ensure product quality as well as consumer expectation of traceability and food safety, more companies in the industry are using innovative technologies such as blockchain tracking solutions or monitoring systems. These technologies assist in ascertaining the quality of a seafood product from the point it is sourced up to the consumer end [29].

Some marketing communications play a role in the generation of consumer expectations by attaching some attributes to a brand. If the brand's quality is not impressive relative to what is advertised in the commercials, then it is very dangerous to the brand image and customer credibility [30].

The presence of opportunities for consumers to gather as much information as they need at their fingertips makes it harder to meet or, even more importantly, exceed consumers' quality expectations. Marketing practices have to be realistically tied with product quality so as to retain customer loyalty in the long run [31].

### **3.1.3. Price sensitivity in consumer behavior**

Price sensitivity reflects the degree to which product price influences consumer purchasing decisions. Customers may be sensitive to price in varying degrees depending on income, perceived quality, utility, and availability of rivals products. In the case of aquatic food products, the price elasticity is normally higher due to the competitiveness of the seafood sector and the availability of protein substitutes,

including poultry, beef, and plant-based proteins. This is because consumers who feel that seafood is a premium product may not be as sensitive to the price of such products, especially if they are quality, economically sustainable, or healthy products. On the other hand, price-sensitive consumers may or may not be sensitive to quality and/or source, depending on the extent of the price increase and their decision to opt for cheaper price options or even switch to other less expensive seafood products [32].

Various psychological factors affect price sensitivity, including price history, reference points, and consumer value attribution. In simple terms, consumers will not mind if the organizations increase the prices of the aquatic foods if they see that the prices reflect the quality of the products sold, their freshness, or if their purchase supports sustainable fishing practices. But when the perceived value of a product is not equal to the price, consumers prefer to look for other products from other brands or do not purchase at all. For instance, consumers may be willing to pay more for seafood that has been sourced sustainably, but if similar products are cheaper and there is little difference in the quality, the price sensitivity influence arises. Additionally, promotional activities such as special offers and seasonal discounts can impact product price sensitivity and stimulate sales, particularly among price-sensitive market segments [33].

When brands position seafood products as premium or gourmet offerings, they benefit from targeting market segments less sensitive to higher prices for quality seafood. By communicating these attributes, companies are therefore able to build an image of an added value that would get consumers to pay a premium price. Furthermore, branding is the other factor that most affects price sensitivity. Branding represents another significant factor affecting price sensitivity. Strong brand equity helps counter price sensitivity, as well-established and respected brands instill confidence that products, despite higher prices, maintain superior quality and environmental responsibility. Digital media used in e-commerce provides strategic pricing techniques like providing loyalty incentives, promotions, or service packages, all of which cut down on price sensitivity while boosting brand reputation. In general, price sensitivity presents a complex concept that relates to perceived value, product quality, and chosen price levels, particularly in the highly competitive market segment of aquatic foods [34].

### **3.2. Behavioral response mechanisms in the context of consumer decision making**

Behavioral response mechanisms are defined as the behavior of the consumer as they respond to stimuli in their immediate environment in the course of the marketing and purchasing processes. These responses are of different psychological, emotional, or cognitive natures, which define consumer perceptions, preferences, and choices. With regard to seafood products, these behavioral responses may involve information search, evaluation of price, and stakeholder response to promotion appeals [35].

Another behavioral response technique is the “Foot-in-the-door”; this is where consumers initially purchase small seafood samples and subsequently commit to larger purchases or regular delivery subscriptions. This technique takes advantage of the psychological theory whereby people become committed to a course of action after

making an initial contribution towards that plan. Further, consumer theory based on self-interest implies that consumers are loss averse; that is, people are motivated more by avoiding than by gaining. For example, if a marketing campaign is aimed at increasing the consumption of various seafood products, there could be a creation of a kind of artificial sense of the urgency of the whole process because customers are made to believe that the offer is only available for a limited time. Knowledge about these response mechanisms will help marketers in their quest to develop proper strategies that fit with the way customers might attend to various stimuli [36].

### **3.2.1. Purchase patterns in the aquatic food industry**

Purchase patterns are a consumer buying process that outlines their propensity to purchase, how often they buy products, the products they buy, and how external factors such as time of year and coupons affect those purchases. In the aquatic food industry, customers' buying decisions will be in respect of the availability of the products, the price charged for the products, lifestyle and other social factors, and health considerations. For instance, consumers purchase increased quantities of seafood in the holiday period or during summer because seafood is regarded as festive or event food. Further, more and more consumers build their seafood consumption according to health promoting effects of fish and seafood, which corresponds to the trend towards 'clean' and sustainable food products [37].

Purchase patterns have also been affected due to e-commerce sales of seafood and people can order seafood online, and there is also the possibility of subscription service. These models, where the consumers regularly get supply of seafood products, are gradually gaining preference in today's world by the convenience factor and the freshness of the supplied products. This trend is relevant to niche/herald seafood products where buyers may even be willing to pay slightly above a normal price and wait for deliveries to be made directly to their doorstep. At the same time, it is impossible to overestimate the impact of social media on the formation of purchases, as Instagram and Pinterest with recipes and trends, and influencers promoting new seafood products. It becomes easier for brands operating within this sector to analyze their purchases undertaking consumer analyses that makes it possible for them to conform to the consumer demands, favorable pricing, suitable marketing techniques, etc. [38].

### **3.2.2. Brand preferences**

Brand attitude examines the response of a consumer in relation to a particular brand based on performance, brand loyalty, perceived image, and self-identity. From media, brand preferences are influenced by advertising, content marketing, and the interactions, especially on the social media platforms. Media then serves as the key channels through which the various brands disseminate information on their values, attributes, and key selling points to the consumer. For the specific sector of aquatic food products, the format of presentation on Instagram and YouTube is particularly effective for promoting the perception of product freshness, ecological approach to fish farming, and, in general, versatility of dishes made from fish and seafood. For instance, a seafood brand that works with the influencers or chefs to add interesting information can always appeal to the hearts of the audiences [39].

Opinion influence is one of the key competencies that underlie brand choices made in concordance with media. Positive comments, star ratings, customer feedback, and other materials shared on social media make the consumer rely their faith on particular brands. Advertisement on media platforms builds brand awareness; a large number of advertisements are placed with special emphasis on population segments who purchase specific products on media platforms. Those companies that are able to utilize these media strategies at their disposal are in a position to build a distinct brand image that triggers consumers' inclination towards their products [39].

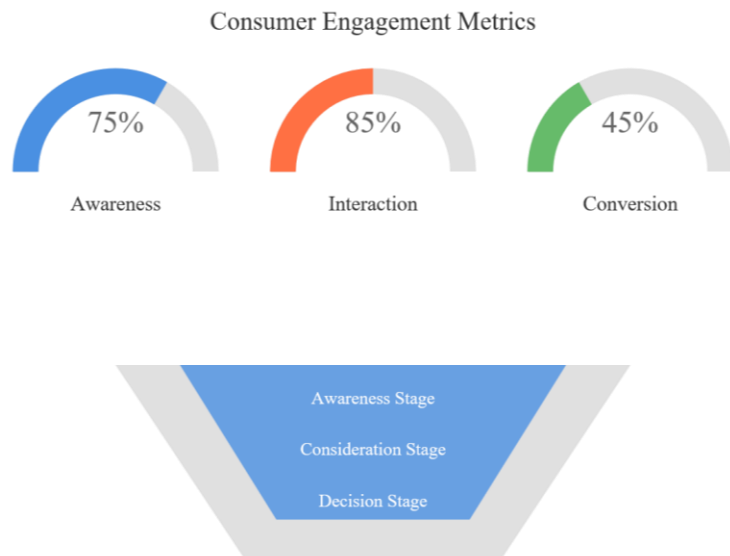
For organizations to enhance and develop brand affiliations, they need to incorporate a single platform media technique that includes truthfulness, participation, and coherence. Promotion was useful to this end because it enabled brands to engage consumers emotionally for example through storytelling. This makes the brand more appealing to the consumers since the narratives disarm the brand and foster trust. Furthermore, using real time communication in Live Classes or Live Q&A events and Social Polls to create brand engagement elevates brand loyalty and preference [11].

Another medium that brands find helpful is the personalized marketing where they create marketing content based on data analysis on the consumer. Continuity across media is also very important because it tends to support the brand message and enhance the consistency of the consumption experience of consumers. Holding these approaches in concert, brands can change consumers' preferences intentionally and build up their devoted audiences, which will benefit their perform well in the competitive market continually [38].

### **3.2.3. Product evaluation criteria**

From a media perspective, product evaluation criteria represent the standards that consumers apply to make their evaluation regarding a product based on the information flowing through the media channels. These criteria are determined by the attributes that are depicted in advertisements, sponsored recommendations, other people's posts, and testimonials [40].

Other bias stems from people's storytelling and authenticity from the media aspect. The believability of a product is likely to be measured by testimonials, behind-the-scenes material, and brands' stories, respectively. Moreover, reviews and ratings on e-commerce platforms act as important opinion leaders since they contain direct feedback from users. Compliments, high scores, and media can all complement each other when improving the market position of a particular product [41]. **Figure 5** represents consumer engagement metrics with gauge charts and funnel visualization.



**Figure 5.** Consumer engagement metrics with gauge charts and funnel visualization.

### 3.3. Case studies and primary data on Egyptian consumer behavior

#### 3.3.1. Euromonitor international's consumer values and behavior in Egypt (2024)

This report provides an in-depth analysis of Egyptian consumer behavior, offering critical insights into the relationship between cultural values, purchasing decisions, and consumption habits. The report highlights key factors influencing consumer preferences, such as economic conditions, social trends, and technological advancements, all of which shape the evolving marketplace. It reveals that Egyptian consumers are increasingly prioritizing affordability, product authenticity, and sustainability, particularly in sectors like food and beverage, fashion, and personal care. Additionally, digital engagement has become a crucial driver of purchasing behavior, with a growing reliance on e-commerce and social media platforms for product discovery and brand interaction. This shift underscores the importance of businesses adopting omnichannel strategies that integrate traditional retail with digital innovations to cater to a more informed consumer base. Furthermore, the report emphasizes the role of cultural heritage and family-centric decision-making in shaping buying patterns, highlighting the need for localized marketing strategies that align with Egyptian societal values. By linking these behavioral trends to broader economic and technological developments, Euromonitor's findings provide valuable guidance for businesses and policymakers aiming to enhance market competitiveness and consumer engagement in Egypt [42].

#### 3.3.2. TGM research's (2024)

The TGM Consumer Sentiment Survey in Egypt 2024 provides critical insights into how socio-economic shifts and geopolitical events shape Egyptian consumer behavior and purchasing decisions. The survey highlights key factors such as inflation, currency fluctuations, and global trade dynamics, which have significantly impacted consumer confidence and spending habits. Findings indicate a growing preference for

cost-effective and locally sourced products, as economic uncertainty has led many consumers to prioritize essential goods over discretionary spending. Additionally, the report emphasizes shifts in brand loyalty, with Egyptian consumers increasingly seeking value-driven purchases and transparent communication from businesses. Digital transformation also plays a crucial role, as online shopping and mobile payment adoption continue to rise, reflecting the population's adaptation to evolving market conditions. Moreover, the survey underscores the importance of trust in marketing strategies, with consumers responding positively to brands that emphasize authenticity, corporate social responsibility, and sustainable practices. By offering valuable primary data on consumer sentiment, the report serves as a crucial resource for businesses and policymakers aiming to navigate market uncertainties and align strategies with consumer expectations in Egypt [43].

### **3.3.3. Egyptian consumers' perceptions and preferences of global vs. local brands**

This presents a comprehensive model for understanding the factors that shape Egyptian consumers' brand preferences. The research explores key psychological and cultural drivers that influence whether consumers favor global or local brands, considering elements such as perceived quality, brand trust, social identity, and national loyalty. Findings suggest that while global brands are often associated with superior quality and prestige, local brands appeal to national pride, affordability, and cultural relevance. The study also highlights the role of consumer behavioral intentions, demonstrating how factors like social influence, digital engagement, and economic conditions shape brand perception and purchasing decisions. Additionally, Mahrous and Kortam emphasize the growing importance of hybrid consumer behavior, where individuals selectively purchase from both global and local brands depending on product category and personal values. This research provides valuable insights for marketers seeking to develop strategies that align with consumer expectations in Egypt, highlighting the need for localized branding efforts that maintain international quality standards while resonating with domestic cultural preferences [44].

### **3.3.4. Egyptian consumer behavior shifts amid rising prices and cost of living**

This article examines significant changes in consumer preferences within Egypt's fast-moving consumer goods (FMCG) and durables market during the first half of 2024. The report highlights how economic challenges, including inflation, currency depreciation, and rising costs of living, have reshaped purchasing behaviors, leading to an increased preference for locally produced goods. Consumers are prioritizing affordability and value-driven purchases, shifting away from premium international brands in favor of cost-effective alternatives that meet their basic needs. Additionally, the article emphasizes the growing influence of private label brands and discount retail chains, which have gained traction as consumers seek budget friendly options. Moreover, digital transformation has played a crucial role in shaping these trends, with online shopping and e-commerce platforms experiencing increased activity due to competitive pricing and convenience. Despite economic constraints, the report notes that consumers remain brand conscious, favoring companies that demonstrate transparency, ethical sourcing, and corporate social responsibility. These insights

provide valuable guidance for businesses navigating the evolving Egyptian market, highlighting the need for adaptive pricing strategies, localized marketing efforts, and a strong digital presence to maintain consumer engagement and loyalty [45].

#### 4. Quality perception and market performance

Quality perception has a direct effect on market performance since it determines consumers’ trust, brand loyalty, and/or choice. It was found that media strategies that disseminate information for quality-related attributes can dramatically improve the market share of the brands. For example, in digital campaigns, it is possible to use additional AR elements in terms of virtual sightseeing of seafood sourcing facilities and ensure the quality through personal experiences. **Figure 6** is a quality perception framework showing the interconnected elements that influence quality perception in the aquatic food industry.

Other media promotion strategies also include the use of analytics for segment-specific messages for targeted groups, ensuring that quality attributes reflect consumer values. For instance, the audience interested in health-related issues will likely appreciate content with a focus on **Table 1**.

**Table 1.** Positive attributes of different categories of consumers [1,3].

Category	Positive Attributes	Preferred Attributes
Nutrient-Health-Conscious Consumers	Positive Perception of Product, Quality Certification/SGS, Remark Sample/Sample	Health Claim, Ingredient Preferences, Health Benefits Claim, Product Endorsement
Sustainability-Conscious Consumers	Attention Paid, Brand Recall, Interest, Attitude, Enjoyment, and Engagement of Consumers	Consumer Engagement



**Figure 6.** A quality perception framework showing the interconnected elements that influence quality perception in the aquatic food industry.

Furthermore, synchronizing conventional advertising with new media ensures that the two complement each other in as far as brand image is concerned, thus achieving a wider audience while reaffirming brand quality. Lastly, by emphasizing selected media strategies such as transparency, authenticity, and innovation, brands can increase consumer trust, translating to better market performance [46].

## **4.1. Digital media impact on quality assurance**

### **4.1.1. Supply chain transparency**

Supply chain transparency refers to the ability to track products from production through all processing stages until they reach consumers. Digital media serves as a critical tool for enhancing visibility of information that consumers and stakeholders use to evaluate product identity, quality, and processing procedures. For aquatic food products, consumers increasingly demand transparency regarding ethical sourcing, sustainability practices, and seafood safety. Company websites, mobile applications, and social networks enable businesses to provide timely information about seafood sources, processing methods, and distribution channels. This transparency informs consumers about the quality of their seafood purchases [47].

Blockchain technology represents a primary enabler of supply chain transparency using digital media. Blockchain creates secure, immutable transaction records, allowing consumers to trace products to their sources with high confidence. For example, seafood companies can implement blockchain to provide consumers with comprehensive information about fish journeys to market, including sustainable fishing practices, handling methods, and quality control measures. Beyond blockchain, businesses can leverage social networks and mobile applications to share backstories through videos or infographics depicting sourcing techniques and certifications, reinforcing quality and sustainability processes. By utilizing digital media in these ways, companies enhance supply chain visibility, which is a crucial factor influencing quality perceptions and consumer choices [48].

### **4.1.2. Certification and standards in digital media for quality assurance**

Evaluation and certification achievable in their implementation improve the quality assurance of food products, including seafood. QS (quality standards) often include specifications for purchasing, handling, and environmental friendliness, and certification is evidence that certain definite requirements have been met. Websites, mobile applications, and social media accounts make it easy for companies to display their certifications, like fair trade, organic, or MSC certification. The objective of certification disclosure is to convey the intentions of the firms to deliver safe products of superior quality that are environmentally friendly and socially sensitive [49].

Certifications can be embedded into technology-supported products through QR (Quick Response) codes or blockchain to allow the consumer to scan the product and know more about the certification status as well as the conformity to various standards. Apart from using digital media in relaying information about compliance to these certification conditions, companies ensure that to make long-term sales in the competitive food market, consumers develop trust in their brands [50].

## **4.2. Traditional media's role**

Television, radio, magazines, newspapers, directories, direct mail, and other forms of advertising media enjoy a vast history of influencing perceptions and guaranteeing that the foods, including seafood, produced were safe for human consumption. However, new technologies have not completely replaced traditional media, which is more effective in reaching large and highly diverse audiences and reinforcing brand messages in areas with limited access to technology. In the case of the AF (Aquatic Food) products line of food products, the consumer can be reached through traditional media in relaying information that is important concerning the origin, quality, and safety of the products. Everyday food-related adverts, commercial breaks before and in between programs, and advertisements in food-related magazines can help change the consumers perception of quality by including certification, sustainability, and quality control exercises [51].

Also, it is worth mentioning that traditional media generates trust and credibility that is particularly important in the food industry, to which customers are highly concerned about the health risks. Print media, especially newspapers and magazines, and television promotions provide credibility to the given claims by various companies like sustainability and transparency in sourcing. The kind of channels that are being trusted to promote a certain seafood product or to recommend a certain certification program create a positive perception about the product among the consumers. Moreover, through traditional media, people can be heavily educated about certain issues or products; for instance, through a fish or a farming special article that goes through the entire process of how it is produced or why it should be sustainable or how it is produced to the highest standards. Such long-form content can help create a closer relationship with the consumers and create a more knowledgeable customer base [52].

### **4.2.1. Expert endorsements**

Expert endorsements significantly influence the perceived quality and credibility of aquatic food products. These endorsements typically come from professionals with domain-specific credibility, including chefs, food safety advocates, nutrition experts, and certification bodies. Testimonies from experts offer the consumers a recommendation from someone independent; most of the time, they offer consumers the social proof that what brands tell them in regards to their products quality and safety as well as their origin is true. In the case of the aquatic food products, for particularized segments like sustainably sourced seafood or those products having enhanced nutritional values, endorsement by the food experts should work as the strong means for differentiating the better quality products in the overcrowded market. By associating their products with credible experts, food producers can rebuild consumer confidence regarding safety, environmental conservation, and quality issues [53].

Specialist opinions in the case of new media and conventional advertising are possible in forms such as TV/radio interviews, social media influencers, articles written by the experts, or having the experts advertise in credible magazines and newspapers. For instance, a popular cuisine TV channel can use a specific brand of seafood in the cooking show while promoting the brand and how perfect it is to cook, and a marine biologist can also recommend the brand for being conscious about the

kind of fishing method used on the sea products. Moreover, those marks, such as MSC or Fair Trade, if given by experts in other chained stores, also boost the believability of the product. These testimonials not only build credibility but also increase purchase likelihood because consumers tend to trust information presented by experts more than standard advertising and promotional material [26].

#### **4.2.2. Educational content**

Educational content is important for improving consumers' awareness about the quality and safety of aquatic food products. It serves as a way to provide consumers and producers with essential knowledge about sustainability, food safety, and traceability. In the case of products like seafood, the lack of such information is alarming, and creating awareness through sources, fishing techniques, and quality assurance can go a long way to eliminate these myths and misconceptions that surround particular industries. Through relaying factual, understandable, and vibrant information, consumers are well equipped to make rational choices of the products to purchase based on quality production and fairness of the supply chain. Taking this into consideration, educational content can be presented in the forms of articles, videos, webinars, infographics, and other digital forms that will help companies implement their projects across the board in order to reach people of different profiles and backgrounds. Specific to the field of aquatic food products, such content may include information on the nutritional value of fish, the role of MSC certification, and the effects of fishing on the environment [54].

Moreover, educational content is highly relevant and useful for building consumer trust and enhancing brand loyalty. In a globalized seafood market often dominated by alarming discourse about overfishing, ocean health, and food safety concerns, firms that provide educational content create a virtuous cycle of trust and accountability with consumers. Sharing educational content through the website or through blogs, social networks, or YouTube channels will help companies develop the identity of a quality leader while reaching their audience. Furthermore, brands also apply educational content, and this serves as an effective tool for setting up the brands from similar brands based on specific aspects; for instance, environmentally friendly fishing and social accountability, fresh traceability, and high safety measures [54,55].

## **5. Challenges and opportunities in aquatic food marketing**

### **5.1. Market challenges in aquatic food marketing**

From a media standpoint, marketing aquatic food products presents specific challenges resulting from misinformation, consumer skepticism, and the nature of the seafood business. There is a high probability of misleading information being disseminated about the environmental impacts, safety, and sourcing of seafood products. Misinformation can quickly spread doubts about the sustainability or ethical practices of seafood brands through both digital and traditional media. As consumers become more knowledgeable, they demand higher levels of transparency, making any negative or misleading news potentially devastating to established brand reputations. The trouble for marketers is to eliminate or sell products coping with the fake materials while guaranteeing that material that is disseminated about products is real and backed

up by scientific research and acknowledged certificates. This calls for media relations that put correct information across, and it must be a consistent effort that creates a robust and reliable brand image [56,57].

The other challenge is the lack of adequate knowledge on the quality of seafood and the sustainable sources among some of the consumers. Despite upwelling such as overfishing, traceability, and food safety, many consumers are still in confusion on the best ways of approaching the seafood industry. This lack of understanding can create a problem for brands and their ability to convey benefits and competitive advantage, particularly where they resort to media or digital media to put across the quality of their product. One of the main communication challenges of seafood marketing is that the consumer does not always realize which brands are trying to do something good for the environment and its inhabitants, as well as how safe seafood can be. It should be tackled through awareness-creation exercises that entail marketers focusing on the benefits of sustainable seafood as opposed to other forms of seafood supplies. This may require developing simple, informative material; employing the print media, television, and billboards to establish awareness and give directions to consumers [58,59].

#### **5.1.1. Consumer awareness**

Educating the consumers is always a powerful weapon when it comes to marketing aquatic food products, especially at a time when factors such as sourcing the product from sustainable farming methods and food safety have reached paramount importance in the market. As people become more conscious of harmful fishing practices and pollution, they increasingly prefer seafood products that align with their core values. Research by the National Oceanic and Atmospheric Administration suggests that increased consumer knowledge translates not only into greater appreciation of MSC certification indicators but also into more scrutiny of seafood brands' sustainability claims and quality standards. Nevertheless, there is a lack of information in many consumer segments concerning the challenges of sourcing seafood and related environmental consequences of various fishing or farming methods. In response to this, firms need to come up with suitable knowledge that will enable consumers to make proper choices concerning the benefits of the environment, society, and health through consumption. Informing consumers about the existing labels, for instance, through the Marine Stewardship Council (MSC) and fair trade, as well as the challenge of traceability in the seafood supply chain, is an important first step [60,61].

While consumers are more empowered, misinformation remains a core issue that businesses still have to deal with. With these different label claims appearing in various forms in media, the management gets confused with the varying sustainability or safety of some seafood products. For example, the popularity of "greenwashing" terms within the periods of the food industry where brands give an impression of being sustainable has resulted in the distrust in the marketing of seafood. The above-mentioned challenges can only be met through mature and sincere efforts by the brands involved and third-party endorsement through certifications or audits. Higher levels of consumer knowledge extend not only to necessary encouragement to eat seafood that has sustainable impacts on the environment but also to proper choices of labels

and certification that the companies producing the fish should possess. To that end, companies can help address these issues and thus create an informed populace that can make the right choice when making their purchase [62,63].

### **5.1.2. Market fragmentation**

Market segmentation, especially in food products, has its chances as well as constraints on marketers. Market fragmentation, from the media point of view, is the breakdown of a target market into small and specifically different sets of buyers that have different needs, buying behaviors, and media habits. For seafood marketers, this implies the need to satisfy diverse customer requirements based on cultural practices, preferences, trends, occasions, geographical distribution, and socioeconomic factors. Different communication channels further extend this fragmentation by targeting specific audiences and requiring unique approaches to marketing communication. For example, the latest generation users may get exposed to seafood content through the pages of the social networks or through other engaging campaigns, while those of the previous generation may go to it through the conventional media such as television or newspapers. This divergence makes it difficult for the marketing team to come up with integrated and compatible marketing strategies that appeal to all segments all the time [64].

Furthermore, the call for transparency, sustainability, further diversification, and personalization of seafood products compounds market dispersion. While some will buy seafood products with eco-certification and traceability, others will opt for cheap products or products that come ready to eat. With reference to the above segments, the mass media, especially the digital media, allows marketers to communicate to these segments with a lot of ease and accuracy since tools such as statistical analysis and audience research can be used to develop appeals that reflect the consumer's relevant values. But this entails a major commitment in the area of content differentiation and perhaps the capacity to handle the range of campaigns at the same time. For instance, a seafood brand that markets its fish as being environmentally friendly may require an individual campaign targeting the health effects of consuming its fish to the slim customers, preparation ideas appealing to foodie buyers, and an environmental message for Earth-conscious consumers. Managing such dissimilar messages together with ensuring the organization has a single voice is not easy; thus, it would need a lot of planning and bureaucracy [65].

### **5.1.3. Quality perception issues**

From a media perspective, quality perception in aquatic food products depends largely on how information is conveyed and relayed to people. Media is a central tunnel in influencing consumer perception concerning the quality aspects of seafood, including freshness, nutrition value, quality sustainability, and safety. But the creation of conflicting messages or the spreading of false information not only in one media type but across media types will also contribute to consumer confusion and skepticism. For example, while proposing farm-raised seafood as a more sustainable food option, there might be platforms that warn their audience about antibiotic use or the environmental effects of farming, which generates confusing impressions of its quality. Like any contaminants found in seafood, even if the incidence is singular, the information will go viral as it receives a lot of media attention. This leaves consumers

feeling that all food they consume is potentially unsafe despite various branding efforts to ensure food safety. More so, this negative bias combined with the widespread dissemination of messages in the social media platforms is a key challenge for seafood marketers [66].

Another problem is associated with the different quality standards and certifications declared in media content. Labels such as MSC or ASC (Advertising Standards Council) that are designed to guarantee consumer trust in sustainability and quality lack effectiveness when consumers have no understanding of these standards. Unfortunately, these certifications are often promoted through media campaigns that provide insufficient information about their actual meaning and significance. Furthermore, the globalization of the supply chain provides additional variability to the expected seafood quality in various markets. For example, quality standards in one country can be different in another country; thus, it can complicate media stories. Correcting these inequalities is essential in order not to worsen but to improve the access of consumers to aquatic food products through media reports [67].

## **5.2. Growth opportunities**

The dynamic nature of media offers numerous growth opportunities for the aquatic food industry, enabling companies to expand their market reach, enhance brand visibility, and foster consumer engagement. One significant opportunity lies in leveraging digital media platforms to tap into global markets and niche consumer segments. Social media networks, such as Instagram, TikTok, and YouTube, are particularly well suited for promoting seafood products. These platforms also allow companies to collaborate with influencers, chefs, and environmental advocates who can amplify their message and resonate with diverse audiences. Additionally, the use of advanced analytics and targeted advertising enables seafood marketers to identify emerging trends, such as the growing demand for plant-based or sustainably sourced seafood, and adjust their strategies to align with consumer preferences [68].

Another growth area is the integration of innovative technologies, such as augmented reality (AR) and virtual reality (VR), into media campaigns. Furthermore, media platforms provide a space for brands to highlight their adherence to international certifications, quality assurance programs, and traceability systems, which are increasingly important to eco-conscious consumers. By capitalizing on these media-driven opportunities, aquatic food marketers can differentiate themselves in a competitive landscape and drive sustainable growth [69,70].

Evidence clearly shows that for firms to capture growth opportunities, they must integrate traditional and digital media while centering their campaigns on consumer education. Owned media, including newspapers and television, remain effective for establishing standards and appealing to mass audiences, especially in areas where internet access is limited [1].

Another radical strategy is utilizing sustainability and CSR policies as growth perspectives in business. Working themes that imply a brand's involvement in avoiding overfishing or supporting local fishers, as well as environmentally friendly packaging, can have a positive impact on PES consumers' appeal. Other ways of extending these efforts can be cooperation with non-governmental organizations

(NGOs) or involvement in the events, like World Oceans Day. Also, the observed proven link to e-commerce platforms that are associated with digital media campaigns suggests another avenue for growth that comes with making the purchase process easier for consumers with easy access to quality seafood products. Through the right selection of the values to present, the focus on innovations, and the emphasis on the commitment to the quality of products, the companies from the aquatic food sector could strengthen their positions and reveal growth opportunities with the help of media space [71].

## **6. Strategic recommendations**

### **6.1. Content marketing strategies**

Content marketing can be a persuasive strategy for promoting aquatic food products, particularly when appropriately deployed across print and digital media platforms. A recommended best practice is developing educational content to enhance consumers' knowledge about the health benefits, environmental impacts, and other value propositions of seafood. Articles, blogs, and videos can answer consumer-related questions like the health implications of consuming fish rich in omega-3, the importance of consuming eco-friendly seafood, or tasty recipes that working parents with little time can prepare. As a result of adopting the expert and educating strategy, brands reduce the likelihood of customers being wary of a company and its product offerings. For instance, a seafood firm may post cooking videos or find chefs for recipes to create a new product from the company [72].

Another strategy is about visual content or, in other words, about visual content marketing. Since seafood offers appealing textures, quality images, videos, and infographics can be utilized to engage the audience and pass the desired message. Accounts on Instagram and Pinterest are appropriate for sharing tasty meals, whereas you can use accounts on YouTube and TikTok for sharing the activities of sustainable fishing or aquaculture [73].

### **6.2. Influencer collaborations**

Influencer marketing is a practical recommendation for expanding the reach of aquatic food products. Food bloggers specializing in cuisine, nutrition, and sustainability can serve as credible sources of information, encouraging consumers to purchase seafood products. Such partnerships rely on influencer credibility and followership, which makes them ideal methods of creating brand recognition and developing consumers' trust. Such endorsements not only associate new products with other products but also more personally present products to potential consumers. The last key benefit of influencer collaborations is related to improving such things as story and realism. References to quality and sustainable sources of fish can also be periodically disseminated to the audience through reposting and perhaps through direct involvement in the manufacture of products. This is particularly so for aquatic food brands to engage the micro-influencers who usually have closer rapport with the customers because of the smaller but highly interactive community they engage [74,75].

### **6.3. Data analytics implementation**

Data analytics has revolutionized media strategies for aquatic food brands, enabling more effective outcomes and broader coverage of their products. By generating and analyzing information from digital platforms, companies can develop a deeper understanding of customer tendencies, preferences, and consumption habits. For instance, analytics can tell which social media post or advertisement gets the most views, and hence brands can produce more similar content. Likewise, analyzing control data derived from website CTR (Click-Through Rate) or time spent on the product page gives marketing teams realistic data on consumer interest and allows for distinction of effective marketing factors. More about Google Analytics and Meta Insight, as well as many other tools, allows understanding the performances of brands and campaigns across the food industry and improving them for better results [76].

One of the major factors that need to be transpired is the effective application of predictive analytics that can make marketers capable of knowing trends and demand from consumers. Through study of past data and current media, an aquatic food company can predict that there will be high demands for various types of seafood during different seasons or that there is growing concern from the public for sustainability of fish stocks. That helps brands easily predict the market, thereby being able to constantly adapt both the marketing strategies and stock levels. Also, using sentiment analysis within the social media context can facilitate brand reputation by positioning and performance evaluation of their products. Promising data analytics adoption takes media campaigns from fixed tools to proactive interventions that elicit the right response from desired consumers [77].

To effectively incorporate data analytics in media campaigns, brands should apply a strict program of analytics integration into the marketing process. The first process is to identify specific goals and objectives, for example, to introduce awareness, generate traffic, or sell a certain product. For these objectives, businesses can then choose metrics on which to focus, including engagement statistics, conversion ratios, and demographics. It is important to pay considerable attention to data rigidity because of the impact that incorrect or insufficient data might have on the strategies in question [2].

Another strategic approach is the use of machine learning as well as artificial intelligence (AI) to improve analytics. Intelligent tools are capable of analyzing a large quantity of data as it happens, meaning that marketers can gain further understanding of the audience, the content's success, and the return on investment. For instance, this AI can tell when to post on social media or even make recommendations of ads depending on the user's actions. Marketing departments must work closely with data or analytical departments to explain analytics results and provide recommendations. Thus, incorporating data analytics into media operations will be beneficial for aquatic food brands because it will increase organizational efficiency and help place focus on the right target audience, thus allowing them to stay relevant in the quickly growing competitive market [78].

#### **6.4. Capacity building initiatives**

Capacity-building activities contribute to the development of stakeholders within the aquatic food chain so as to enable them to promote marketing efficiency to fit customer needs. These include activities that involve passing simple, efficient, and sustainable marketing solutions essential for practice by the individual or organization. For example, developing courses such as digital marketing can help seafood-producing organizations and stores to work effectively with social media tools, e-business, and technology intelligence. Other capacity-building areas that could also improve the capacity of stakeholders include branding, product positioning, and storytelling. Since the development of these competencies enhances the industry's capacity to simulate and respond to various market forces, capacity building is very vital to the development of the industry [78].

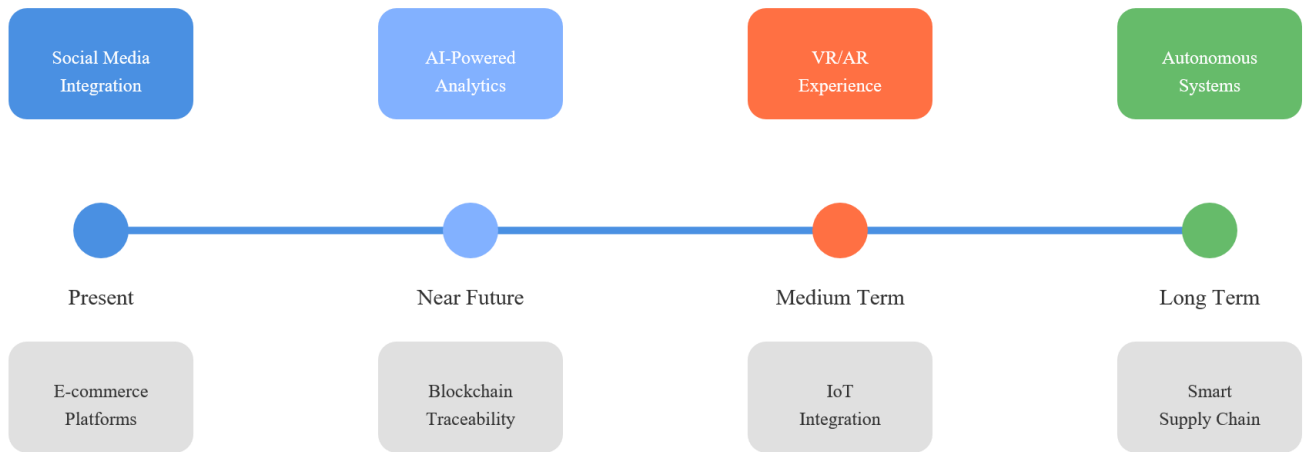
Such training and cooperation assist both producers and marketers to adopt and familiarize themselves with standards that improve practices and branch out into markets with consumers' confidence. Finally, research collaborations of universities, companies, and agencies can foster competitive ecosystems for new aquaculture and aquatic food marketing strategies. They make sure that the stakeholders continue to operate efficiently and effectively with regard to sustainable development objectives [79].

Government and other businesses can innovate through collaborative efforts, including a partnership between the industry and the academies. For example, universities could provide such courses or certificates as seafood marketing or seafood sustainability with academic input enriched by practical experience [80].

Another strategic approach is the incorporation of technology in learning. The means of organization: online platforms and sometimes even webinars make the capacity-building programs more available to the participants, especially residents of the distant coastal regions. These platforms can include webinars for sharing and discussion, instructional meetings and tutorials, and resource centers with current guidance on marketing, product quality, and customer relations. For sustainability, such capacity building should incorporate elements of training that can go on for a long time through mentorship, peers, and other constructive feedback. On the same note, monitoring and evaluation frameworks should also be used for the evaluation of these initiatives for improvement purposes. Hence, the advancement in skills development as a subsector of capacity building has shown that the aquatic food sector can develop a dignified workforce, innovative ideas, and improve its graph on the international level [80]. **Figure 7** shows strategic recommendations and implementation timeline. While **Figure 8** represents a digital innovation timeline displaying the progression of technological advancement in the sector.



**Figure 7.** Strategic recommendations and implementation timeline.



**Figure 8.** A digital innovation timeline displaying the progression of technological advancement in the sector.

## 7. Conclusion

The phenomenon of connecting digital platforms with a traditional approach to marketing is the potential for changing the Egyptian industry of aquatic food. Using the examples of social networks, e-commerce, or augmented reality and artificial intelligence, companies can counter the issue of deceit and skepticism while raising awareness about sustainable production. Also, capacity-building measures besides collaboration between academia, industries, and policymakers add to the sector's resources in this aspect and assist in its capacity to embrace change in compliance with the market's dynamics.

Lastly, the effective recreation of the marketing objectives within anticipation of consumers' values like sustainability and ethical sourcing helps to build consumers' confidence and gain their loyalty. Hence, this review indicated that a concerted approach to mobilizing education, technology, and storytelling is central in achieving

the dreams, the futuristic growth, and global competitiveness for the Egyptian aquatic food market.

The originality of the study, considered highlighting several advantages. Unlike many global studies on social media and consumer behavior, this research specifically examines the Egyptian aquatic food market, a sector that has unique cultural, economic, and digital adoption characteristics. While existing research often focuses on either digital or traditional marketing, this study uniquely explores their synergistic relationship, demonstrating how their integration can enhance consumer trust and market sustainability. Despite conventional marketing studies that primarily examine consumer engagement, this research connects social media influence with sustainability goals, revealing how digital platforms can promote responsible seafood consumption and ethical sourcing. The study also moves beyond theoretical discussions by offering actionable insights for businesses, policymakers, and marketers in Egypt's aquatic food sector, providing a roadmap for adopting effective marketing strategies.

This review highlights the growing significance of integrating digital and traditional marketing strategies in Egypt's aquatic food industry. Businesses such as Carrefour Egypt and Al-Bustan Aquatic Foods have demonstrated the practical benefits of leveraging online platforms, while Nestlé Egypt's campaigns showcase the effectiveness of socially responsible branding. As consumer preferences evolve, companies must adopt a multi-channel marketing approach that balances conventional media with emerging digital trends.

Future marketing trends in Egypt's seafood sector will be driven by sustainability, localization, and technological advancements. The increasing reliance on social media, e-commerce, and influencer marketing will shape brand-consumer interactions, particularly among younger, digitally engaged audiences. Moreover, localized content and culturally relevant campaigns will be essential in building brand loyalty. Search engine optimization (SEO) will play a crucial role in enhancing online visibility, allowing brands to reach target audiences more effectively. However, businesses must continuously refine their SEO strategies to remain competitive in an ever-evolving digital landscape. By integrating these insights, seafood brands can enhance consumer trust, improve market positioning, and drive sustainable growth in Egypt's aquatic food industry.

This study underscores the transformative impact of social media, digital marketing, and sustainability on consumer behavior within Egypt's aquatic food market. The integration of traditional and digital media strengthens brand credibility and enhances consumer engagement, while e-commerce platforms facilitate greater transparency and personalized marketing experiences. However, challenges such as misinformation and market fragmentation highlight the need for structured communication strategies.

Key industry trends indicate a shift toward affordable, locally produced seafood, driven by economic considerations and evolving consumer preferences. The growing demand for sustainable seafood and ethical sourcing presents an opportunity for businesses to adopt eco-certifications and responsible marketing practices. Additionally, leveraging AI, data analytics, and digital storytelling techniques such as AR-based sourcing tours and QR-coded traceability—can enhance consumer trust and

brand differentiation. By embracing these strategies, Egypt's seafood industry can achieve sustainable growth, improve market access, and align with global best practices in responsible seafood marketing.

To strengthen the practical relevance of those findings, insights on best practices from the reviewed literature have been incorporated, demonstrating how businesses can create a cohesive marketing approach. Successful strategies involve leveraging digital platforms such as social media, e-commerce, and AI-driven personalization alongside traditional media channels like television and print advertising. An integrated marketing communication (IMC) strategy ensures consistency across multiple touchpoints, reinforcing brand messaging and improving consumer trust. Additionally, interactive elements such as live-streamed cooking demonstrations, influencer collaborations, and augmented reality (AR) experiences provide immersive brand interactions, further strengthening consumer relationships. Cross-channel analytics play a vital role in assessing campaign effectiveness, enabling businesses to optimize their strategies in real time. As sustainability gains prominence, companies must also integrate corporate social responsibility (CSR) messaging through digital storytelling, eco-labeling, and cause driven campaigns to differentiate themselves in a competitive market. By embracing a balanced mix of digital innovation and traditional reliability, seafood brands in Egypt can maximize their market presence, enhance customer engagement, and drive sustainable growth in an evolving digital landscape.

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## References

1. Belch GE, Belch MA. *Advertising and Promotion: An Integrated Marketing Communications Perspective*. McGraw-Hill; 2011.
2. Chaffey D, Smith PR. *Digital Marketing Excellence: Planning, Optimizing and Integrating Online Marketing*. Routledge; 2022.
3. Kotler P, Keller K, Brady M, et al. *Marketing Management*, 3rd ed. Pearson Education; 2016.
4. Kumar V, Pansari A. Competitive advantage through engagement. *Journal of Marketing Research*. 2016; 53(4): 497–514. doi: 10.1509/jmr.15.0044
5. Mangold WG, Faulds DJ. Social media: The new hybrid element of the promotion mix. *Business Horizons*. 2009; 52(4): 357–365. doi: 10.1016/j.bushor.2009.03.002
6. Lemon KN, Verhoef PC. Understanding customer experience throughout the customer journey. *Journal of Marketing*. 2016; 80(6): 69–96. doi: 10.1509/jm.15.0420
7. Sashi CM. Customer engagement, buyer-seller relationships, and social media. *Management Decision*. 2012; 50(2): 253–272.
8. Hollebeek LD, Srivastava RK, Chen T. S-D logic-informed customer engagement: Integrative framework, revised fundamental propositions, and application to CRM. *Journal of the Academy of Marketing Science*. 2019; 47(1): 161–185. doi: 10.1007/s11747-016-0494-5
9. Prayag G, Hassibi S, Nunkoo R. A systematic review of consumer satisfaction studies in hospitality journals: Conceptual development, research approaches and future prospects. *Journal of Hospitality Marketing & Management*. 2018; 28(1): 51–80. doi: 10.1080/19368623.2018.1504367
10. Huyen TTM. *The effects of social media marketing on brand awareness through Facebook and Instagram [Bachelor's thesis]*. Seinajoki University of Applied Sciences; 2021.
11. Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*. 2010; 53(1): 59–68. doi: 10.1016/j.bushor.2009.09.003

12. Appel G, Grewal L, Hadi R, Stephen AT. The future of social media in marketing. *Journal of the Academy of Marketing Science*. 2020; 48(1): 79–95. doi: 10.1007/s11747-019-00695-1
13. Roheim CA, Bush SR, Asche F, et al. Evolution and future of the sustainable seafood market. *Nature Sustainability*. 2018; 1(8): 392–398. doi: 10.1038/s41893-018-0115-z
14. Lerro M, Raimondo M, Stanco M, et al. Cause related marketing among Millennial consumers: The role of trust and loyalty in the food industry. *Sustainability*. 2019; 11(2): 535. doi: 10.3390/su11020535
15. Tirole J, Rendall S. *Economics for the Common Good*. Princeton University Press; 2017. pp. 1–564.
16. Voldnes G, Pleym IE, Ageeva T, et al. E-commerce of Seafood—A Review of Existing Research. *Journal of International Food & Agribusiness Marketing*. 2020; 33(1): 3–35. doi: 10.1080/08974438.2020.1835779
17. Wang G, Hou Y, Shin C. Exploring Sustainable Development Pathways for Agri-Food Supply Chains Empowered by Cross-Border E-Commerce Platforms: A Hybrid Grounded Theory and DEMATEL-ISM-MICMAC Approach. *Foods*. 2023; 12(21): 3916. doi:10.3390/foods12213916
18. Buttle F, Maklan S. *Customer Relationship Management: Concepts and Technologies*, 4th ed. Routledge; 2019.
19. Babatunde SO, Okeleke PA, Ijomah TI. Influence of Brand Marketing on Economic Development: A Case Study of Global Consumer Goods Companies. *International Journal of Management & Entrepreneurship Research*. 2022; 4(12): 692–708. doi: 10.51594/ijmer.v4i12.1418
20. Erislan E. Analysis of Marketing Management Strategies in Facing Dynamic Consumer Behavior in the Digital Era. *Jurnal Ilmiah Manajemen Kesatuan*. 2024; 12(2): 365–372.
21. Solomon MR. *Consumer Behavior: Buying, Having, and Being*. Pearson; 2020.
22. Katz E, Lazarsfeld PF, Roper E. *Personal Influence: The Part Played by People in the Flow of Mass Communications*. Routledge; 2017.
23. Cialdini RB. *Influence: The Psychology of Persuasion*. HarperCollins Publishers; 2021.
24. Kousuke O. Building Strong Brands (Japanese). *Japan Marketing Journal*. 1997; 16(3): 101–102. doi: 10.7222/marketing.1997.009
25. Dick AS, Basu K. Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*. 1994; 22(2): 99–113. doi: 10.1177/0092070394222001
26. Macrae C. Building, Measuring and Managing Brand Equity. *Journal of Brand Management*. 1998; 6(2): 142–143. doi: 10.1057/bm.1998.57
27. Elegbeleye JA, Fayemi OE, Akanni GB, et al. 22 Food supply chain in the pandemic era. In: *Food Science and Technology: Fundamentals and Innovation*. De Gruyter; 2024. pp. 531–568. doi: 10.1515/9783111013107-022
28. Lee EJ, Bae J, Kim KH. The effect of environmental cues on the purchase intention of sustainable products. *Journal of Business Research*. 2020; 120: 425–433. doi: 10.1016/j.jbusres.2019.10.048
29. Xu Y, Li X, Zeng X, et al. Application of blockchain technology in food safety control: Current trends and future prospects. *Critical Reviews in Food Science and Nutrition*. 2022; 62(10): 2800–2819. doi: 10.1080/10408398.2020.1858752
30. Wiley MW. *Perception of Chinese Enterprise in African Communities: Indicators of Embedded Behavior [Master’s thesis]*. University of Kansas; 2024.
31. Saidi A, Cavallo C, Puleo S, et al. Defining Traceability Attributes and Consumers’ Segmentation Based on Fish Attributes: A Case Study in Italy and Spain. *Foods*. 2024; 13(16): 2518. doi: 10.3390/foods13162518
32. Monroe KB. *Pricing: Making Profitable Decisions*. McGraw-Hill College; 1990.
33. Nagle TT, Hogan J, Zale J. *The Strategy and Tactics of Pricing*. Routledge; 2016. doi: 10.4324/9781315266220
34. Choi C, Choi S, Mattila AS. The role of reference prices in the lodging industry: The moderating effect of an individual’s psychological state. *Journal of Travel & Tourism Marketing*. 2019; 36(4): 511–520. doi: 10.1080/10548408.2019.1583626
35. Kahneman D, Tversky A. Prospect theory: An analysis of decision under risk. In: *Choices, Values, and Frames*. Cambridge University Press; 2019. pp. 17–43. doi: 10.1017/CBO9780511803475.003
36. Moutinho L, Hutcheson GD. Store choice and patronage: A predictive modelling approach. *International Journal of Business Innovation and Research*. 2007; 1(3): 233–252. doi: 10.1504/IJBIR.2007.012109
37. Borsum JS. *The Development of Oyster Resource Production and Governance: A Harbinger for Seafood Production Systems [PhD thesis]*. University of Florida; 2022.

38. Yap R. How social media influences our food choices. Available online: <https://www.thestar.com.my/lifestyle/health/2020/04/03/how-social-media-influences-our-food-choices> (accessed on 8 February 2025).
39. Smith JG, Clark FE. Principles of Marketing. *The Economic Journal*. 1928; 38(151): 450. doi: 10.2307/2224326
40. Smith AN, Fischer E, Yongjian C. How Does Brand-related User-generated Content Differ across YouTube, Facebook, and Twitter. *Journal of Interactive Marketing*. 2012; 26(2):102–113. doi: 10.1016/j.intmar.2012.01.002
41. Ur Rahman R, Ali Shah SM, El-Gohary H, et al. Social media adoption and financial sustainability: Learned lessons from developing countries. *Sustain*. 2020; 12(24). doi: 10.3390/su122410616
42. Euromonitor International. Consumer Values and Behaviour in Egypt. Euromonitor International; 2024.
43. TGM Research. TGM Consumer Sentiment Survey in Egypt 2024. Available online: <https://tgmresearch.com/tgm-consumer-sentiments-egypt-2024.html> (accessed on 8 February 2025).
44. Boseila I, Mahrous AA, Abou-Aish E. Global or Local? Egyptian Consumers' Perceptions and Preferences of Global vs. Local Brands. Available online: [https://www.researchgate.net/publication/353620700\\_Global\\_or\\_Local\\_Egyptian\\_Consumers'\\_Perceptions\\_and\\_Preferences\\_of\\_Global\\_vs\\_Local\\_Brands\\_Boseila\\_I\\_Mahrous\\_AA\\_and\\_Abou-Aish\\_E\\_2020\\_Global\\_or\\_Local\\_Egyptian\\_Consumers'\\_Perceptions\\_and\\_Preferences\\_of\\_](https://www.researchgate.net/publication/353620700_Global_or_Local_Egyptian_Consumers'_Perceptions_and_Preferences_of_Global_vs_Local_Brands_Boseila_I_Mahrous_AA_and_Abou-Aish_E_2020_Global_or_Local_Egyptian_Consumers'_Perceptions_and_Preferences_of_) (accessed on 8 February 2025).
45. Business Today Egypt. Egyptian consumer behavior shifts amid rising prices and cost of living. Available online: <https://www.businesstodayegypt.com/Article/1/5095/Egyptian-consumer-behavior-shifts-amid-rising-prices-and-cost-of> (accessed on 8 February 2025).
46. Verhoef PC, Kannan PK, Inman JJ. From Multi-Channel Retailing to Omni-Channel Retailing. *Journal of Retailing*. 2015; 91(2): 174–181. doi: 10.1016/j.jretai.2015.02.005
47. Kshetri N. Blockchain's roles in meeting key supply chain management objectives. *International Journal of Information Management*. 2018; 39: 80–89. doi: 10.1016/j.ijinfomgt.2017.12.005
48. Fast K, Jansson A. *Transmedia Work: Privilege and Precariousness in Digital Modernity*. Routledge; 2019. doi: 10.4324/9780203732748
49. Bush S, Oosterveer P. *Governing Sustainable Seafood*. Routledge; 2019. doi: 10.4324/9781315780429
50. Smit NP. Environmental legal compliance through self-regulation in the petrochemical industry in South Africa. North-West University; 2020.
51. Bassaw JP. Online Advertising Characteristics and Purchase Intention in the Ghanaian Automobile Market. [Master's thesis]. University of Ghana; 2018.
52. Croteau D, Hoynes W. *Media/Society: Industries, Images, and Audiences*. Sage Publications; 2013.
53. Gajdzik B, Jaciow M, Wolniak R, Wolny R. Gastronomic Curiosity and Consumer Behavior: The Impact of Television Culinary Programs on Choices of Food Services. *Foods*. 2024; 13(1): 115. doi: 10.3390/foods13010115
54. Newman V. The Medium is the Massage. *Management Education and Development*. 1987; 18(1): 25–30. doi: 10.1177/135050768701800104
55. Rashid FR, Japar FI. TikTok's influence on retail businesses: A case study of its application in Brunei Darussalam. In: *Strengthening Sustainable Digitalization of Asian Economy and Society*. IGI Global; 2024. pp. 348–369. doi: 10.4018/979-8-3693-1942-0.ch019
56. Hoque MZ. Consumers' Value Perceptions of Seafood [PhD thesis]. UiT The Arctic University of Norway; 2022.
57. Panzone LA, Ulph A, Hilton D, et al. Sustainable by Design: Choice Architecture and the Carbon Footprint of Grocery Shopping. *Journal of Public Policy & Marketing*. 2021; 40(4): 463–486. doi: 10.1177/07439156211008898
58. Veríssimo D, Blake K, Flint HB, et al. Changing Human Behavior to Conserve Biodiversity. *Annual Review of Environment and Resources*. 2024; 49(1): 419–448. doi: 10.1146/annurev-environ-111522-103028
59. van Dooren C, Bosschaert T. Developing and disseminating a foodprint tool to raise awareness about healthy and environmentally conscious food choices. *Sustainability: Science, Practice and Policy*. 2013; 9(2): 70–82. doi: 10.1080/15487733.2013.11908116
60. Petkovska Mircevaska T, Nefovski S. The Role of Media and Promotion in Increasing Consumer Awareness to Reduce Food Waste. *Economic Development*. 2024; 26(1): 6–9. doi: 10.55302/ed2426106pm
61. Roheim CA, Sutinen JG. Trade and Marketplace Measures to Promote Sustainable Fishing Practices. International Centre for Trade and Sustainable Development (ICTSD); 2006.

62. Sloan AE. Top 10 food trends. *Food Technology Magazine*. 2019; 73(4): 30–47.
63. Vinet L, Zhedanov A. A ‘missing’ Family of Classical Orthogonal Polynomials. *Journal of Physics A: Mathematical and Theoretical*. 2011; 44. doi: 10.1088/1751-8113/44/8/085201
64. Dolnicar S, Grün B, Leisch F. Step 5: Extracting Segments. In: *Market Segmentation Analysis*. Springer; 2018. pp. 75–181. doi: 10.1007/978-981-10-8818-6\_7
65. Rutsaert P, Regan Á, Pieniak Z, et al. The use of social media in food risk and benefit communication. *Trends in Food Science & Technology*. 2013; 30(1): 84–91. doi: 10.1016/j.tifs.2012.10.006
66. Van Holt T, Weisman W, Käll S, et al. What does popular media have to tell us about the future of seafood? *Annals of the New York Academy of Sciences*. 2018; 1421(1): 46–61. doi: 10.1111/nyas.13613
67. Silver JJ, Hawkins R. “I’m not trying to save fish, I’m trying to save dinner”: Media, celebrity and sustainable seafood as a solution to environmental limits. *Geoforum*. 2017; 84: 218–227. doi: 10.1016/j.geoforum.2014.09.005
68. Kazmi SHA, Ahmed RR, Soomro KA, et al. Role of augmented reality in changing consumer behavior and decision making: Case of Pakistan. *Sustainability*. 2021; 13(24): 14064. doi: 10.3390/su132414064
69. Qin H, Peak DA, Prybutok V. A virtual market in your pocket: How does mobile augmented reality (MAR) influence consumer decision making? *Journal of Retailing and Consumer Services*. 2021; 58: 102337. doi: 10.1016/j.jretconser.2020.102337
70. Lehner M, Halliday SV. Branding sustainability: Opportunity and risk behind a brand-based approach to sustainable markets. *Ephemera: Theory & Politics in Organization*. 2014; 14(1): 13–34.
71. Pulizzi J, Piper B. *Epic Content Marketing*, 2nd ed. McGraw-Hill Publishing; 2023.
72. Holliman G, Rowley J. Business to business digital content marketing: Marketers’ perceptions of best practice. *Journal of Research in Interactive Marketing*. 2014; 8(4): 269–293. doi: 10.1108/JRIM-02-2014-0013
73. Abidin C. Visibility labour: Engaging with Influencers’ fashion brands and #OOTD advertorial campaigns on Instagram. *Media International Australia*. 2016; 161(1): 86–100. doi: 10.1177/1329878X16665177
74. Lou C, Yuan S. Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media. *Journal of Interactive Advertising*. 2019; 19(1): 58–73. doi: 10.1080/15252019.2018.1533501
75. Frederiksen A. Competing on analytics: The new science of winning. *Total Quality Management & Business Excellence*. 2009; 20(5): 583–583. doi: 10.1080/14783360902925454
76. Chaffey D, Ellis-Chadwick F, Mayer R. *Internet Marketing: Strategy, Implementation and Practice*. Financial Times Prentice Hall; 2009.
77. Brynjolfsson E, McAfee A. *Machine, Platform, Crowd: Harnessing Our Digital Future*. W. W. Norton & Company; 2023. pp. 564.
78. Ward T, Phillips B. *Seafood Ecolabelling: Principles and Practice*. Wiley-Blackwell; 2009.
79. Swanepoel H, De Beer F. *Community Development: Breaking the Cycle of Poverty*. Juta and Company Ltd; 2011.
80. Kurpius D. The Fifth Discipline: The Art and Practice of the Learning Organization: Book Review. *Consulting Psychology Journal: Practice and Research*. 1993; 45(4): 31–32. doi: 10.1037/1061-4087.45.4.31