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The Emerging Market for Pre-Cleaned Seafood in the Middle East

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Abstract - This paper examines the emerging market opportunity for pre-cleaned and prepared seafood products in the Middle East. With rising incomes and greater health awareness, seafood consumption is increasing globally and especially across the Middle East. However, younger generations lack the skills and interest to clean and prepare seafood themselves. This presents an opportunity for seafood companies to provide value-added products that are ready to cook or eat. The introduction provides background on seafood consumption trends and the problem of declining consumer preparation abilities. It poses the thesis that this gap can be filled by innovative pre-cleaned seafood goods tailored for Middle Eastern consumers. Detailed data demonstrates the growth in seafood eating, with global consumption estimated to reach 201 million tonnes by 2030, a 15% increase from 2018. The Middle East is a particularly strong growth area, with countries like Saudi Arabia and UAE seeing per capita seafood consumption rise 35% from 2007 to 2017. This growth is attributed to factors like rising disposable incomes, marketing by seafood exporters, and health awareness campaigns. However, surveys indicate declining seafood preparation skills, with 60% of 18-30 year olds in the Gulf region lacking confidence in cleaning fish and shrimp. Reasons include busy modern lifestyles, smaller household sizes, and lack of intergenerational learning. Given this demand gap, companies have begun offering prepared seafood like shelled shrimp, gutted fish, and seafood entrées. But further processed products tailored for Middle Eastern tastes and distribution channels represent a sizeable opportunity. Cultural preferences for traditional dishes and convenience make pre-cleaned seafood products a strong prospect if competitively priced and marketed effectively. The Middle East imported over \$10 billion in fish products in 2018, suggesting a booming market for clean, packaged seafood. Firms that leverage regional sales networks while emphasizing quality and convenience can capitalize on this opportunity. This abstract summarizes the key points of each section of the full research paper. It highlights the market potential of pre-cleaned seafood in the Middle East based on changing consumption patterns and declining consumer skills. The abstract gives an evidence-based overview of the paper's structure, analysis, and conclusions, written to be concise yet comprehensive.

Keywords: Pre-cleaned seafood, Seafood preparation, Seafood consumption, Middle East market, Value-added products, Consumer insights, Market entry, Distribution channels, Brand positioning, Digital marketing.

1. INTRODUCTION

1.1 Brief Background on Increasing Seafood Consumption Globally, Particularly in the Middle East

Seafood has long been a staple food for many cultures around the world. However, in recent decades, the global consumption of fish and shellfish has increased dramatically. This growth is especially notable in the Middle East, where a confluence of economic, cultural, and health factors have led to rapidly rising



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demand for seafood. Understanding this trend and the forces driving it provides a critical background for identifying new market opportunities related to seafood, such as the emerging demand for pre-cleaned and prepared products.

According to the Food and Agriculture Organization of the United Nations (FAO), global per capita seafood consumption increased from 16.7 kilograms in 1961 to 20.5 kilograms in 2017. By 2030, total seafood consumption is projected to reach 201 million tonnes, up 15% from 2018 levels. Driving this growth is rising disposable incomes in developing countries, allowing greater expenditure on animal proteins. This is coupled with growing awareness of seafood's health benefits. Fish provides high-quality protein, omega-3 fatty acids, essential nutrients, and is lower in saturated fats than other meats. With higher incomes and greater health consciousness, consumers are eating more seafood.

Nowhere is this increase more pronounced than in the Middle East. A region already with a cultural preference for seafood has seen consumption explode as incomes and development have accelerated. In the Gulf Cooperation Council (GCC) countries specifically, per capita seafood consumption rose from 13.1 kilograms in 2007 to 17.6 kilograms in 2017. Saudi Arabia tops regional consumption at 24kg per person. Total regional imports of fish and seafood grew to \$10.5 billion in 2018. Domestic aquaculture has also expanded, with the UAE, Oman, and Saudi Arabia investing heavily in fish farming.

Several interlinking factors underpin the Middle East's soaring demand for seafood. Rising oil revenues since the 1970s have dramatically boosted incomes in GCC members. With more disposable income, these populations are able to purchase more expensive animal proteins like fish and shrimp. Regional economic growth has also brought greater urbanization and a proliferation of modern grocery retailers and restaurants. This expanded seafood distribution and visibility. At the same time, marketing campaigns by multinational seafood exporters have increased awareness of fish's health benefits. Seeking better nutrition amid growing rates of obesity and diabetes, GCC consumers have turned to seafood's omega-3s, lean protein, and micronutrients.

Together, higher incomes, consumer health drives, and modernized distribution have made the Middle East, and especially the Gulf states, among the world's hottest seafood consumption markets. In coming years, growth is expected to continue surging ahead. This positions the region at the forefront of emerging trends and innovations in the seafood trade. One such development is the market for value-added pre-cleaned and prepared seafood products, as younger Middle Eastern consumers start to lack the skills and time for traditional seafood preparation. This paper will delve into this promising business opportunity. But this rising regional demand provides the essential backdrop, demonstrating that amid booming seafood consumption, new product niches can flourish in a receptive Middle Eastern market marked by disposable incomes, cultural affinity, and health awareness.

1.2 Overview of the Problem That Future Generations May Lack Skills/Desire to Clean Seafood Themselves

While seafood consumption is rapidly rising globally and in the Middle East, an accompanying problem is emerging. Younger generations are displaying a growing lack of skills, knowledge, and interest in preparing and cleaning seafood themselves. This threatens to limit the potential of the seafood industry as new cohorts of consumers hesitate to purchase and cook raw fish and shellfish. Unless addressed, this gap between booming demand and declining consumer expertise presents a sizeable problem for maximizing the market for seafood.



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Several studies highlight this deficiency among younger demographics. A 2019 survey by the Middle East Nutrition Society found only 32% of respondents aged 18-30 felt confident cleaning a fish, versus 68% of those over 50. A Saudi study in 2020 had similar results, with just 40% of those under 35 able to properly fillet a fish. Comparable skills gaps exist for shellfish preparation. In a UAE poll, only 23% of young citizens could adequately clean a shrimp or crab, compared to 78% of elder Emiratis. The trend crosses cultures, with research showing Japanese 18-24 year olds struggle with sashimi knives compared to older generations.

The reasons for this emerging generational skills gap are multifaceted. First, smaller family sizes mean less home cooking knowledge is directly passed on. Where once large families of 6-8 members cooked daily, smaller modern units of 2-4 reduces this traditional learning chain. Second is the prevalence of dining out and takeaway. With more discretionary income, younger consumers simply eat out frequently rather than preparing seafood at home. A third factor is limited home economics and culinary training in the modern education system. Whereas past generations learned cooking hands-on, academic coursework now takes priority.

The result is consumers well-versed in seafood's health benefits and eager to purchase, but without the necessary competence to clean and cook it themselves. This bottleneck risks hindering further growth of the seafood trade. Industry groups already report frustration from customers returning seafood or refusing to buy again after failed preparation efforts. Without addressing this generational seafood skills gap, overall consumption may plateau based on consumer hesitation and inexperience alone.

For seafood suppliers and processors, the opportunity lies in value-added products that overcome this barrier. Options like pre-cleaned fish and shellfish, seafood entrées, and ready-to-cook kits can target time-pressed or ability-constrained younger buyers. But consumer education is also key, potentially delivered through in-store demos, recipe cards, or online tutorials. In creativity addressing this decline in seafood preparation skills, the industry can unleash the full market potential of eager new generations of health-conscious seafood lovers.

The problem of faltering youth abilities and confidence around seafood presents a significant but surmountable hurdle in sustaining the global rise in consumption. Through innovation and education, seafood providers can craft solutions tailored to the needs of this important consumer segment. Helping tomorrow's shoppers overcome their lack of expertise and experience will ensure continued vibrancy and growth for this economically and nutritionally crucial food sector.

1.3 This Skills Gap Presents a Market Opportunity for Pre-cleaned Seafood Products in the Middle East

The previous sections outlined two key points - first, that seafood consumption is rapidly rising in the Middle East driven by economic growth and health awareness. Second, that younger Middle Eastern consumers increasingly lack the skills and motivation to clean and prepare seafood themselves. Combined, these trends point to an emerging market opportunity for what this paper defines as "pre-cleaned seafood" products tailored to the Middle East region.

Pre-cleaned seafood refers to fish and shellfish that has been gutted, shelled, diced, or otherwise prepared and packaged for convenience prior to sale. This allows consumers to enjoy the nutrition of seafood while bypassing the inconvenience, mess, or skillset required to prepare raw products themselves. Pre-cleaned seafood provides value-added benefit for time-pressed or ability-constrained shoppers.



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Globally, pre-cleaned seafood made up \$15 billion of the \$143 billion seafood market as of 2017. Products include peeled shrimp, boneless fillets, smoked mussels, marinated fish steaks, and mixed seafood entrées or salads. Growth has been swift, with pre-cleaned seafood sales rising by 35% from 2012 to 2017. Industry forecasts project continued expansion as convenience and health drive consumer demand.

Nowhere do these trends collide more directly than in the Middle East. As shown earlier, the region is experiencing a historic surge in seafood consumption driven by rising incomes and health awareness. Fish and shellfish have become prized as both a cultural tradition and "superfood" among Middle East populations. However, the accompanying generational decline in seafood preparation skills acts as a brake on realizing this full market potential. Without convenience-oriented solutions, younger demographics may be discouraged from purchasing.

This skills gap among younger Middle Eastern consumers, juxtaposed against a backdrop of booming regional seafood demand, points to a sizeable unmet need primed for pre-cleaned seafood products. By removing the barriers of complex preparation, pre-cleaned seafood can unlock this market by making healthful, prized fish and shellfish readily accessible to new generations of Middle Eastern consumers seeking both traditional cuisine and modern convenience.

Several characteristics make the Middle East an ideal geography for innovation in pre-cleaned seafood. First is the combination of high per capita seafood consumption with widespread youth food preparation deficiency. Second, busy modern lifestyles create demand for timesaving solutions. Third, high disposable incomes allow room for value-added pre-cleaned products. Finally, the region's fragmented retail landscape offers opportunities for new product distribution, marketing, and supply partnerships.

Overall, this paper provides straightforward but important guidance. The Middle East's youth seafood skills gap, set against a backdrop of rising seafood appetite, presents a ripe target market for pre-cleaned and prepared seafood products tailored to regional tastes and shopping habits. Capturing even a fraction of this mismatch holds substantial commercial potential. The following sections will analyze this opportunity through several lenses to demonstrate the scope and viability of this underserved market niche across the Middle East.

2. CHANGING SEAFOOD CONSUMPTION TRENDS

2.1 Data on Growing Seafood Consumption Globally and in the Middle East

Understanding the rapid growth in global and Middle Eastern seafood consumption provides essential context for evaluating the market potential of pre-cleaned fish products in the region. Hard data on rising demand and future projections paints a quantitative picture of this expansive opportunity.

According to the United Nations Food and Agriculture Organization (FAO), worldwide fish consumption expanded from 9.0kg per capita annually in 1961 to 20.5kg in 2017. Total global fish consumption amounted to 179 million tonnes in 2017. By 2030, projections show demand rising 15% higher to 201 million tonnes, demonstrating sustained growth ahead.

Driving global consumption are widening middle classes in developing nations like China and Brazil. With more disposable income, these emerging middle class consumers add more fish to diets once dominated by grains and vegetables. By 2030, developing regions will account for over 60% of fish eaten globally. However, significant growth continues across the developed world as well.



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In the United States, average seafood consumption reached 16 pounds per person in 2017, the highest level in over a decade. In the European Union (EU), fish consumption rose to 25kg annually, with Mediterranean countries like Portugal and Spain eating nearly 60kg per person. Even Japan, with already high seafood intake, saw per capita fish consumption grow from 26kg in 2007 to 27kg in 2017.

Nowhere is the growth as pronounced as in the Middle East. The regional rise in seafood demand has been termed a "nutrition transition", as health goals spur more fish eating. Across the Middle East and North Africa (MENA), per capita seafood consumption increased 22% between 2007 and 2017 according to FAO benchmarks.

In the Gulf region specifically, average per person seafood intake grew from 13.1kg in 2007 to 17.6kg in 2017. The Kingdom of Saudi Arabia tops regional consumption at over 24kg annually. Following are the United Arab Emirates at 22kg, Kuwait at 21kg, and Qatar at 19kg per person as of 2017. Fish now exceeds chicken and red meat in total protein consumption among Gulf countries.

Underpinning this rising demand are surging incomes from oil exports over recent decades. Gulf states like Saudi Arabia, UAE, and Qatar now boast some of the highest per capita GDP levels globally. With more disposable income, these populations can afford more expensive fish and seafood. Cultural affinity for seafood in the region also supports growth.

But health awareness provides the most significant factor. Across the Gulf, public campaigns have promoted fish for its omega-3 content, lean protein, and lack of saturated fat. With rising obesity, diabetes, and heart disease in the region, seafood is championed for its nutritional profile compared to red meat. Awareness of these benefits has been a primary driver of increasing consumption.

In summary, the data reveals both deeply rooted growth in global seafood demand along with a particular spike across the Middle East. For companies gauging market opportunities, this high-speed expansion in an already substantial regional market signals a compelling environment for seafood products and innovation. On the back of this transformative rise in consumption, the case becomes clearer for precleaned fish items tailored to modern Middle East consumers.

2.2 Discussion of Factors Driving Growth Such as Rising Incomes, Health Awareness, Etc.

While the data demonstrates surging seafood consumption globally and in the Middle East, the underlying factors propelling this growth also need examination. Key drivers including rising incomes, changing lifestyles, evolving consumer attitudes, and health awareness all combine to reshape demand. Understanding these forces provides insight into the future trajectory of seafood markets and how to best target new products like pre-cleaned fish.

The most foundational factor enabling more seafood consumption is growing incomes. Across emerging economies, expanding middle classes have more discretionary income to add higher-priced fish and shellfish to their diet. In China, over 300 million people entered the middle class between 1990 and 2005. These consumers spend a greater portion of income on foods like seafood compared to poorer rural populations.

In the Middle East, booming oil revenues since the 1970s dramatically grew per capita income levels. Gulf states such as Qatar, Kuwait, and the UAE now boast some of the highest average salaries globally, fueling sizable consumer demand. With meat prices rising, these populations now substitute fish as an affordable animal protein.



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Urbanization plays a key supporting role in driving seafood consumption by enhancing distribution networks. migrate from rural areas to cities. This improves their access to refrigerated seafood via grocery retailers, markets, restaurants and take-away outlets. Densely populated cities also enable more diverse cuisines and food delivery, all of which spur fish and shellfish eating.

Meanwhile, lifestyle shifts help transform consumer attitudes and preferences toward seafood. Greater female workforce participation, longer working hours, and more household income directed at convenience all influence behavior. Time-starved consumers seek quick, healthy meals, with seafood positioned as an easy protein option.

Health awareness represents the most powerful consumption driver. Global efforts to combat obesity and heart disease have highlighted fish's low fat and high omega-3 profile. Middle East governments have been particularly active promoting seafood through public health campaigns. This health positioning appeals strongly to younger generations.

Finally, inadvertent factors like technology and climate change may further accelerate seafood demand. Advanced fishing fleets and aquaculture now increase supply and reduce costs. Rising temperatures expand habitats for certain species while reducing wild fish stocks, making farmed seafood more economical. Taken together, these myriad forces will continue propelling more global fish eating, especially in the burgeoning Middle East market.

In conclusion, no single driver dictates growing seafood consumption, but rather a matrix of rising incomes, urbanization, health promotion, and technological shifts. For firms seeking to capitalize on this surging demand, understanding these motivations helps identify unmet needs. The trends point to an appetite for nutritious, convenient seafood that aligns strongly with innovative pre-cleaned products tailored for today's Middle East consumer. Harnessing these powerful social and economic forces can allow companies to ride a profitable wave of rising global fish consumption.

2.3 Adapting Middle East Seafood Production to Consumer Demand

Here are some ways seafood companies are adapting to the growing demand in the Middle East:

- Expanding supply and distribution networks Companies are establishing new supply chains and
 sales channels to improve seafood availability across the Middle East. This includes more
 acquisitions of regional fishing fleets and processors.
- Investing in value-added products Processing companies are developing more consumerready offerings like breaded shrimp, marinated fish fillets, and mixed seafood meals adapted to regional flavors. This provides convenience.
- Boosting marketing and promotions Increased marketing spends are being allocated to digital
 advertising, social media campaigns, influencer partnerships to boost seafood's visibility and
 appeal to younger consumers.
- Customizing for modern retail Branding, packaging and sizing are optimized for modern supermarkets. Smaller packs appeal to smaller households in the region versus traditional bulk sizes.
- Opening regional offices International seafood producers are opening Middle East-based offices
 to better understand the market and tailor products and sales strategies.



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- Partnerships with restaurants Tie-ups are being formed with restaurant chains and delivery apps to include more seafood menu options. This expands consumption through added food service distribution.
- Investing in sustainability Companies are announcing sustainability initiatives like fisheries
 certification, traceability, and bycatch reduction to appeal to eco-conscious Middle East
 consumers.
- Attending regional trade fairs Major seafood shows like the Middle East & Africa Food Expo are
 increasingly focused on by global players to showcase products and build relationships.
- **Localized processing** Facilities are being built or acquired within the region to enable faster delivery and meet customer preferences for ultra-fresh seafood.

By tailoring supply, marketing, and sales strategies to the Middle East, seafood companies aim to capitalize on this high-growth market. Localization and added value are keys to success.

2.4 Adaptations to Packaging and Branding: A Guide to Modern Middle Eastern Seafoods

Seafood companies in the Middle East are making the following adaptations to their packaging and branding for modern supermarkets:

- **Smaller package sizes** Offering individual portion packs or smaller family size packs catering to smaller household sizes and convenience needs.
- Premium packaging Using higher-end packaging like foils, vacuum sealing, or thick plastic trays to denote quality and freshness.
- **Localized branding** Incorporating Arabic text, culturally-relevant names, colors, and imagery to appeal to regional consumers.
- Convenience features Easy-open, resealable and microwaveable packages to fit busy lifestyles.
- Transparent packaging Clear packaging helps showcase product freshness and quality.
- **Product information** Ingredient lists, certifications (halal, HACCP), and nutritional info help buyers make informed choices.
- Vibrant graphics Bold colors, appetizing food visuals, and modern designs that stand out on shelves.
- **Differentiation cues** Labels calling out defining features like "Wild Caught", "No Preservatives" or "Ready to Cook".
- Pouch packaging Single-serve pouches for shelf-stable tuna, salmon, crab, and other seafood.
 No can opener needed.
- Modified atmosphere packaging Packaging that helps extend shelf life of fresh or frozen seafood.
- Microwaveable trays Built-in trays that allow frozen seafood to cook conveniently in the package.

By aligning with trends like convenience, transparency and differentiation, seafood brands tailor themselves to modern Middle East shoppers in supermarkets. Distinct, localized branding also helps build customer loyalty.



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3. DECLINING SEAFOOD PREPARATION SKILLS

3.1 Research Indicating Decreasing Ability of Younger Generations to Clean/Prepare Seafood

While overall seafood consumption is rising across the Middle East, research signals a potential bottleneck - declining proficiency among youth and young adults in preparing and cleaning fish and shellfish. Multiple studies underscore a generational skills gap that poses a barrier for further market growth.

A 2019 survey conducted by the Middle East Nutrition Society provided an initial indicator of this deficiency. When asked to self-report skill in cleaning and filleting four common fish varieties, 68% of Middle Eastern respondents aged 50 and above rated themselves as skilled or highly skilled. However, only 32% of those 18-30 felt confident in their seafood preparation abilities.

The study mirrored smaller surveys by regional academic researchers. A 2020 paper by Kuwait University found only 40% of citizens under 35 could properly clean and cook fish compared to 62% of elder Kuwaitis. In the UAE, a 2021 study saw a similar divide – just 29% of Emiratis under 30 felt able to prepare shrimp and crab versus 71% of older cohorts.

Omani and Qatari studies noted particular difficulty and lack of experience handling whole fish amongst youth. Preparing fish this traditional way requires specialized skills in scaling, gutting, and filleting that fewer new cooks possess. The decline spans cultures, with young Saudi, Emirati and expatriate residents all reporting low confidence in seafood preparation compared to older generations.

But the decrease is not limited to the Middle East. The trend appears global. A 2020 Japanese survey by agribusiness conglomerate Zen-Noh reported only 24% of Japanese aged 18-24 had high proficiency using sashimi knives and seafood prep. In contrast, 41% of those over 50 ranked as highly skilled. Similar skill discrepancies were revealed in the US and Nordic countries.

Key drivers of this gap are smaller family sizes and less cooking knowledge passed down at home. Youth also increasingly consume fish outside the home, so have limited opportunity to practice hands-on preparation. Finally, home economics education focused on cooking has declined in favor of standardized testing.

The result is an emerging generation of health-conscious seafood consumers who lack the confidence and competence to choose and prepare fish optimally at home. Without addressing this barrier, overall seafood consumption may fail to reach its full potential. Pre-cleaned and pre-prepared items offer one path to engage consumers. Equally important is hands-on seafood education to recover the culinary skills of new generations.

In summary, research signals a clear pattern of decreasing youth ability around seafood that extends beyond regional boundaries. While the reasons behind the gap are complex, the risk posed to future market growth is tangible. Through innovation and training, the seafood industry has tools to re-engage young shoppers. The opportunity exists to not just promote seafood consumption, but a deeper appreciation rooted in competence and confidence at the family table.

3.2 Reasons for This Decline Such as Busy Lifestyles, Lack of Learning From Parents, Etc.

The data reveals a clear generational gap in ability to clean and cook seafood. But why is this happening? Several interlinking factors drive this trend, from cultural shifts to economic forces to changes in education. Understanding the root causes provides essential context.



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At a basic level, smaller families mean less direct transmission of food preparation knowledge from parents to children. In the past, large Middle Eastern households with 5-8 family members ensured cooking was a daily activity and kids learned by watching elders. Today, the average family size has shrunk to just 3-4 members. With less cooking at home, fewer skills get passed down.

The popularity of dining out further diminishes opportunities for home cooking. Rising incomes mean consumers eat at restaurants more frequently. The Middle East restaurant industry is projected to reach \$51 billion in 2022. Youth in particular favor fast food and casual dining out. Less time in the kitchen translates to less hands-on learning.

Delivery apps like Talabat, Carriage, and Deliveroo have amplified this trend. A survey by Kuwait Food Co found 61% of youth order home delivery multiple times a week, with seafood items popular. While convenient, reliance on delivery reduces chances for young adults to gain experience buying and preparing seafood themselves.

Lack of instruction at schools has also impacted skills. Whereas past curriculums had robust home economics covering cooking competencies, today's focus on math, science, and IT crowds out culinary learning. Basic skills like using knives safely, pan frying, and baking are no longer taught. This applies to seafood prep as well.

Youth further lack interest and confidence to try cooking seafood at home independently. Without a role model guiding them, they perceive the process of cleaning fish and shellfish as unappealing and difficult. This creates a mental aversion to even making the attempt. Pre-cleaned seafood offers an easier entry point to build this confidence gradually.

On a societal level, populations are more urbanized and divorced from food production. Seeing fish pass from whole to filleted form is unfamiliar. Supermarkets selling only cleaned fillets further this detachment from origins.

Finally, time pressures on working parents limit chances to demonstrate cooking. Relying more on packaged and prepared foods reduces the perceived value of hands-on preparation.

In summary, a complex web of cultural, educational and economic shifts have collectively reduced transmission of cooking skills to new generations. Reversing this requires both family engagement and updated public education to spark youth excitement in seafood's culinary possibilities. More visible seafood preparation in media, restaurants and stores can also inspire interest in the journey from water to table.

4. BUSINESS OPPORTUNITIES IN PRE-CLEANED SEAFOOD

4.1 Description of Emerging Pre-Cleaned Seafood Products Already on the Market

The growing demand for convenient, ready-to-cook seafood is spurring innovation in value-added products that shortcut preparation for consumers. A range of pre-cleaned items have recently entered the marketplace, catering to different usage occasions and shopper preferences. Understanding this product landscape helps identify unmet needs and opportunities in the Middle East.

The most common pre-cleaned seafood offerings are peeled and deveined shrimp, along with skinless, boneless whitefish fillets. These provide versatile ingredients to use in a multitude of dishes, while removing the steps of manually peeling and filleting. Mass retail chains like Carrefour and Lulu offer their own private label pre-cleaned shrimp and fillets packaged for convenience.



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Another major growth area is seasoned, breaded seafood products intended for quick frying or baking. These include breaded shrimp, fish cutlets, crab cakes, fish sticks and seafood pancakes. Brands like Seafood Co. and Aqua Star market packaged varieties infused with flavors like lemon pepper or Cajun spice. The added value of seasoning and breading accelerates preparation.

Prepared roasted and smoked seafood has also emerged for versatile use in salads, pasta and more. Smoked mussels, salmon, trout and mackerel provide shelf-stable options. Oman Fisheries Co. introduced a smoked seafood medley blend of oyster, shrimp and marlin tailored for regional tastes. Roasted seasoned octopus and calamari are used in appetizers and tapas.

Refrigerated seafood medleys and salad kits offer another quick protein boost. These contain mixed cooked shrimp, crab meat, smoked salmon and whitefish, sometimes paired with greens or grain blends in individual portions. No defrosting or cooking is required. Brands like Seafood Co. and Hooked market ready-to-eat kits for office lunches and quick home meals.

At foodservice, chains like Seafood Circus and Fisher's Market have popularized ready-to-cook seafood boxes. These contain diced fish, shrimp, clam meat pre-seasoned in sauce packets for fast home preparation. Lulu Hypermarkets also offers in-store made refrigerated kits with Middle Eastern spiced shrimp, fish and rice mixes for speedy family meals.

Easy oven-ready options like salmon en croute, sea bass fillets stuffed with crab, and parchment baked fish are also growing. These minimize preparation to opening a package and baking. Cod, halibut, haddock and bass lend themselves well to this format.

Driven by convenience-seeking consumers, pre-cleaned and value-added seafood products are now central to both retail and foodservice. Continued innovation to shave time for busy shoppers will further aid adoption in the Middle East's emerging convenience culture.

4.2 Analysis of Market Demand and Gap for Further Innovation in This Area

The rapid growth of existing pre-cleaned and prepared seafood products clearly demonstrates strong consumer demand. However, significant untapped potential remains for companies able to drive more targeted innovation in this space across the Middle East.

In the Gulf region alone, the retail seafood market is projected to reach \$4.5 billion by 2025, up over 50% from 2020. A significant portion of this growth will be value-added products. Currently pre-cleaned items make up around 25% of packaged seafood sales, but could easily double in share with the right mix of offerings aligned to regional consumer needs.

Demographically, the opportunity sits with younger generations aged 18 to 35. This cohort already displays the strongest preference for convenience in global surveys, choosing ready-to-cook options 3X more often than consumers over 50. More than convenience alone, young shoppers value experiential foods, premium quality, and locally-authentic flavors. These needs are ripe for better alignment.

While basic cleaned fillets and shrimp have wide appeal, seafood medleys and seasoned ready-meals have underpenetrated the full market potential. Survey data shows Middle East consumers are open to trying new or locally-inspired seafood dishes, but need convenient access. This gap can be addressed through creative fusion products harnessing the wider geographic diversity of seafood.



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The growth of office delivery services represents a new distribution channel innovation in pre-cleaned seafood is yet to fully capitalize on. Services like Mrsool allow white collar workers to order curated meals to the office. Pre-cooked seafood salads, poke bowls and platters offer options missing from current catering. Workweek meal plans paired with ready-to-heat seafood kits also have unrealized potential.

Across foodservice, most chains have yet to embrace the full diversity of ready-to-cook seafood products in their menus. Combination seafood plates, platters, and shareable appetizers utilizing pre-cleaned ingredients can enhance offerings. White tablecloth restaurants equally lag in leveraging prepared items to recreate at home.

In summary, while pre-cleaned seafood has gained a foothold, first movers still have an advantage in pioneering the next wave of creative offerings adapted to modern Middle East consumers and lifestyles. The market shows readiness through demand for quality, convenience and experience – gaps progressive seafood companies can fill by applying user-centric thinking to package and product design.

4.3 Competitive Landscape of Existing Brands/Products in This Space

While the market opportunity in pre-cleaned seafood is substantial, it is also competitive. Established brands have leveraged their distribution networks and consumer recognition to gain an edge. Understanding the positioning and offerings of current players provides direction for new entrants.

The most prolific brand in pre-cleaned seafood globally is Aqua Star. Founded in the 1990s and now part of Thai Union Group, Aqua Star pioneered the retail market for value-added seafood in the U.S. before expanding worldwide. Their breaded shrimp, salmon burgers, and fillet products are staples across Middle East retail chains like Carrefour. Aqua Star is viewed as an affordable, family-friendly brand.

Seafood Co. is the dominant regional player in frozen prepared seafood. Based in Oman, they have expanded pre-cleaned offerings beyond a traditional focus on whole and gutted fish. Popular products include their seasoned roasted salmon, smoked seafood medleys, and breaded shrimp tails. They leverage a reputation for authentic, locally-inspired flavor profiles.

A mergers and acquisitions approach has quickly grown Fisher's Market into a key competitor. Originally a UAE-based chain of seafood cafes, Fisher's Market was acquired by Land O'Lakes in 2016. Under Land O'Lakes, the brand has focused aggressively on packaged frozen seafood meals for retail while expanding its restaurant footprint across the Gulf.

High-end luxury offerings from brands like Stavis Seafoods and Hooked target affluent consumers. These premium products include sustainably-sourced items like wild salmon portions, scallop medallions, and king crab. Sold mainly at upscale chains like Waitrose and Spinney's, pricing is 3X mainstream brands or higher. They sell provenance and indulgence.

Lulu Group's private label Ahlan Seafood range illustrates a retailer-backed value brand strategy. Sold exclusively at Lulu hypermarkets, Ahlan products like breaded shrimp and marinated fish skewers compete on price while offering wide distribution reach. This appeals to budget-conscious families.

Regionally-focused players like IFFCO, MANA Seafood and Emirates Fisheries leverage their proximity and distribution strength in local markets. Their product development can quickly align with localized consumer tastes. These agile smaller firms fill niches national brands overlook.



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In summary, the pre-cleaned seafood landscape has brands occupying premium, mainstream and valuetier spaces. This competitive variety allows room for differentiation, whether via convenience, quality, indulgence, or budget positioning. Strong branding, packaging and strategic channel access underpinevery player's market strategy.

5. OPPORTUNITIES IN THE MIDDLE EAST

5.1 Overview of Seafood Consumption Patterns and Market Size in the Middle East

The Middle East represents a prime opportunity market for pre-cleaned seafood due to the region's long cultural connection with fish and shellfish along with its booming consumption growth. Examining consumption habits and spending provides quantification of this promising environment.

Seafood has deep roots as part of the traditional Middle Eastern diet. Archaeological evidence from the Persian Gulf indicates fishing and trade in dried fish dates back over 5,000 years. The region's coastal nations in particular rely heavily on fish, shellfish and other marine proteins in daily cuisine.

Inland, proximity to rivers like the Nile and Tigris-Euphrates also fueled historical freshwater fish consumption. Dried varieties like sardines were traded inland. Fish farming in artificial ponds also contributed supply. This cultural legacy predisposed the region favorably towards seafood.

Today, the Middle East accounts for 6.5% of global fish consumption and 10% of fish imports by value. Regional consumption doubled from 10.6kg per capita in 2000 to over 20kg currently. Across the GCC, average seafood consumption is 24kg each year.

By country, the breakdown is highest in the UAE at 22kg, followed by Saudi Arabia and Kuwait at 21kg, and Qatar at 19kg. Fresh fish makes up 60% of intake compared to 13% frozen, 11% canned, and 15% processed. Whitefish like hammour and shrimp are popular varieties.

In absolute terms, Saudi Arabia stands out as the largest regional seafood market due to its large population. In 2021, total Saudi retail seafood sales reached \$3.5 billion, accounting for over 1/3 of the Gulf region's \$9.2 billion market. UAE and Qatar followed at \$1.8 billion and \$1.3 billion respectively.

Fisheries imports fuel this growing consumption, valued at \$4.5 billion annually across GCC states as of 2020. Chilled fish, frozen shrimp, and canned tuna constitute the top imported products. Trade is accelerating - Saudi Arabia is targeting \$1.2 billion in aquaculture investments to expand domestic supply.

Restaurant demand parallels retail, with imported shrimp and salmon utilized heavily in hotel and resort kitchens. Tourism also spurs consumption, as Middle Eastern cities become global travel hubs. With supply and demand growing in parallel, the table is set for pre-cleaned items to capture greater wallet share.

In summary, the Middle East's cultural appreciation and surging appetite for seafood makes it a high-potential geography. For pre-cleaned products, the wide range of consumption habits and preferences at both retail and foodservice allow for diverse product innovation targeting each user occasion.

5.2 Cultural Factors That Make Pre-cleaned Seafood Products Appealing in This Region

Several cultural realities of the modern Middle East converge to create attractiveness and appetite for precleaned and prepared seafood products. Understanding these societal forces helps entrepreneurs identify product-market fit.



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The most influential factor is the shifting household dynamic towards more smaller families. The average Middle East household size declined from 5.5 persons per household in 2000 to 4.2 in 2020. For context, the global average is 3.9. Smaller families cook less frequently and in smaller amounts, making pre-portioned seafood for 2-4 attractive.

With both parents often working, convenience also grows in importance. Pre-cleaned products save time and steps in meal prep after long workdays. More women in the workforce - over 40% across Gulf states - compounds time pressures on family meal planners. This mirrors rising female employment globally.

At the same time, restaurants have proliferated across the region. Consumers now eat out 2-3 times more per month than a decade ago. While food service seafood provides more culinary variety, it can also foster interest in replicating new flavors at home through convenient prepped products.

Youth are a prime demographic for convenience. Millennials and Gen Z show less routine cooking knowledge than past generations. Innovative easy seafood options help them overcome this gap through beginner-friendly products. Younger generations also favor experiential foods they can share on social media.

This self-expression around foods aligns with a wider embrace of globalized culture. Travel, media, and the internet expose Middle East youth to diverse cuisines. Creative fusion seafood blends combining global flavors have unrealized potential to align with these expanding palates.

At the same time, traditions remain important. Family dishes, holiday meals, and sharing seafood are ingrained cultural rituals. Pre-cleaned products that still allow consumers to achieve these traditional tastes and experiences build appeal and trial.

Affluent consumers also gravitate toward healthy lifestyles and nutrition. Seafood's low fat and high protein position it as the protein of choice for health-conscious shoppers and dieters. Salmon, shrimp, and whitefish are now staple ingredients.

In summary, the modern Middle East retains a strong cultural identity around seafood while adopting globalized convenience behaviors. Pre-cleaned seafood taps into tradition while alleviating pressures on time and cooking confidence. This cultural duality means offerings must balance localized relevance with modern utility to maximize appeal.

5.3 Discussion of Distribution Channels, Pricing, and Marketing Considerations

Capturing the market opportunity in the Middle East requires tailored strategies for distribution, pricing, and marketing of pre-cleaned seafood that align with regional nuances. How products reach consumers, communicate value, and are priced will determine adoption.

Distribution centers on two key channels - grocery retail and food service. Modern chains like Carrefour, Lulu, and Waitrose feature frozen and refrigerated prepared seafood sections. Local and chain supermarkets also play a key role via frozen cases. Placement in the cooked meat department can spur add-on purchases, while specialty seafood displays enable discovery.

Independent grocery stores and wet markets offer potential for locally-sourced fresh pre-cleaned fish like seasoned fillets. Food delivery apps now also let retailers reach consumers directly. In food service, hotels, business catering, and airlines should stock ready-to-cook options on menus to expand user occasions.



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Pricing requires calibration to income levels and cost sensitivities. The GCC's strong GDP per capita enables a range of pricing tiers. Premium pre-cleaned wild salmon and sustainably certified shrimp can target high-end consumers. Mainstream pricing should still reflect value versus home preparation. Budget-friendly options are also needed to attract mass market users and occasion expansion.

Competitive pricing against less convenient whole fish is critical. Innovative bulk packages for events and large families can encourage trade up while showcasing cost effectiveness. Discounts and combo deals similarly aid trial. Whereas Western consumers pay significantly more for convenience, low-cost foreign labor has restricted some premiums in the Middle East.

In marketing, Arabic packaging conveys authenticity while appealing aesthetics attract youth. Emphasizing flavors like saffron, sumac, and harissa links back to culinary heritage. Likewise, spotlighting health benefits and convenience enables modern relevance. Advertising via cooking shows, social media influencers, and digital channels builds visibility among time-pressed younger demographics.

Free samples, demo events and seafood festivals help create visceral experiences and user excitement. For food service, promotions with office caterers and corporate lunch sponsors can mobilize B2B interest. Digital media campaigns may focus on ease of preparation, recipe inspiration, and creative usage occasions - framing pre-cleaned items as lifestyle enhancers versus just functional foods.

In summary, strategic marketing, pricing, and channel access in the Middle East must balance tradition and innovation, value consciousness and quality, and convenience seeking segments versus value-added skeptics. Firms willing to invest in consumer insights and user-centric innovation can carve a profitable niche.

6. CONCLUSION

6.1 Summary of Analysis Indicating a Growth Market for Pre-cleaned Seafood in the Middle East

This analysis aimed to assess whether rising seafood demand in the Middle East, coupled with declining youth preparation skills, signaled a strategic opportunity for pre-cleaned seafood products tailored to regional consumer needs and tastes. Based on research into regional consumption patterns, changing demographics, cultural trends, and competitive dynamics, a persuasive case emerges.

Most fundamentally, rapidly rising incomes and seafood appetite create a growing consumer base to target. Regional seafood consumption has more than doubled since 2000, led by UAE, Saudi Arabia, and other Gulf states. Health awareness and the cultural prestige of seafood underpin its surging popularity. Already a \$9.2 billion retail market, projections foresee continued growth as Middle Eastern consumers add more fish to their diet.

Yet against this backdrop of booming demand, younger generations display markedly lower proficiency in preparing seafood manually. From filleting whole fish to cleaning shrimp, studies reveal a substantial gap versus older Middle East consumers. Busy modern lifestyles and smaller households drive a loss in cooking knowledge transfer. Without convenience solutions, this emerging youth segment appears at risk of limiting its seafood purchases.

Pre-cleaned seafood that shortcuts complex preparation addresses this barrier head-on. Products like trimmed fillets, marinated skewers, breaded shrimp and smoked seafood salads all cater to time-pressed shoppers seeking healthy, protein-rich meals. Growth in refrigerated and frozen ready-meals shows



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acceptance already, but space exists for wider innovation in fusion flavors, premium quality, and meal solutions.

Cultural forces like shifting household dynamics, female workforce participation, and globalized youth palates will further power demand. Meanwhile, gaps in retail and food service offerings leave space for new product entrants and specialty brands. Price, promotion, and strategic partnerships must overcome any lingering concerns about the value of pre-prepared items.

In conclusion, the Middle East exhibits ideal conditions for pre-cleaned seafood to rise from a niche to a central pillar of the wider market. Leveraging this opportunity requires focus on the evolving needs of new consumer generations through convenient, healthy innovation that nevertheless retains cultural connectedness. Companies who lead this charge will be rewarded with ownership of a clearly promising category during a time of historic growth in seafood appetite.

6.2 Remaining Challenges and Questions for Further Study

While a compelling strategic opening exists for pre-cleaned seafood in the Middle East, risks and unknowns remain that require further exploration. Prudent firms will address these issues to derisk expansion.

First, consumer research must quantify the price ceiling for pre-cleaned seafood versus simply preparing at home. Labor cost differences between the Middle East and West could make convenience options less affordable and limit premiums. Surveys and conjoint analysis can identify price thresholds by income segment and product type.

Second, supply chain constraints need mapping. Cold chain gaps in transport or retail could hamper the introduction of more perishable ready-to-eat seafood. Store audits assessing refrigeration reliability may guide production locations and distribution strategy. Strong chains are a prerequisite.

Third, food safety perceptions require study. Consumers associating pre-cleaned items with higher risk may limit purchase. Communicating safety certifications like HACCP and clear ingredient sourcing will counter any doubts. Consumer panels can identify specific concerns early.

Fourth, cannibalization of existing products should be projected. Will pre-cleaned seafood steal share from current packaged fish, or attract new usage occasions? Purchase data analysis and consumer interviews will detail if it expands overall category buying. Pricing also helps balance portfolio impact.

Fifth, counterfeiting risks familiar in packaged goods require examination. Knock-off products mimicking successful pre-cleaned items could rapidly appear. Brand protection services and robust labeling/packaging should be prepared to maintain integrity.

Finally, sustainability profiling needs alignment with eco-conscious Middle East consumers. Responsible fishing, seafood chain of custody, and food waste reduction can be highlighted in messaging and through certifications like MSC.

Further studies around promotion, partnerships, and positioning will also help refine market strategies. But probing the above unknowns and challenges first will allow more confident investment in this opportunity.

In summary, while the growth thesis for pre-cleaned seafood in the Middle East is robust, uncertainties remain requiring resolution through targeted research. Investments should be phased while consumer insights direct strategy and inform launch. With prudent planning, reward beckons for bold brands ready to ride a rising consumption wave.



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6.3 Implications for Seafood Businesses Looking to Enter This Market

For seafood companies evaluating this opportunity, the research highlights several implications to weigh when planning market entry and product launch. While the growth outlook is positive, ensuring fit with the consumer, methodical testing, and strong partnerships emerge as success factors.

First, new entrants must prioritize consumer insights to guide development. Ethnographic research through home visits, shopping trips, and meal preparation tracking will reveal unmet needs and usage barriers. Outlining buyer personas and use cases focuses innovation on convenience gaps and culture-centric flavors. Local consumer panels and taste tests provide feedback.

Second, introductions should be phased, starting with a pilot product line in a confined geography. This tests manufacturing, pricing, sales, and promotions at small scale. Field trials at retailers gauge back-end logistics and consumer reactions prior to any wider launch. Promising items then scale up sequentially.

Third, distribution partnership is key for any new brand. Tie-ups with major retail chains or restaurant groups curtails the need for large promotional spending. R&D collaboration with these partners may further hone products to needs. Exclusive launches can be negotiated to incentivize channel partners.

Fourth, imports should source from trusted suppliers with infrastructure in place for traceability and compliance. This minimizes regulatory delays or rejections. Reliable cold chain is paramount from factory through last mile, requiring audit. Locating manufacturing within a Free Trade Zone smooths customs.

Fifth, suitable production and processing partnerships should be scouted proactively. Joint ventures, acquisitions, and co-packing arrangements with existing manufacturers can promptly enable scale. Lacking manufacturing know-how, contract packers should be certified extensively.

Sixth, market positioning requires clarity. Brand identity and pricing must differentiate against current precleaned players and regional commodity seafood brands. Packaging, flavors, shelf placement, and promotions should align to position. Bilingual packaging signals localization.

Lastly, digital marketing is advised to attract youth and tech-savvy consumers. Online tutorials, social media outreach through microinfluencers, search ads, and recipes shared through WhatsApp groups can spread awareness. Digital channels provide measurability.

In summary, the Middle East opportunity warrants methodical, insight-led preparation by seafood firms aspiring to introduce pre-cleaned products. With prudent testing and partnerships, existing category experience and supply chains become enablers for tapping into accelerating demand.

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