



## Turn Potential into Profit-

Small & Medium Enterprise Development Authority

Government of Pakistan

SMEDA

http://www.smeda.org.pk

**Lahore:** 3rd floor, Building No3 Aiwan-e-Iqbal Complex Egerton Road Lahore, Tel:(042)111-111-456,Fax (042) 36304926-7 Email: helpdesk.punjab@smeda.org.pk

**Karachi:** Small and Medium Enterprise Development Authority, 5th floor, Bahria Complex-IIMoulvi Tameezuddin Khan Road, K Karachi Tel: 92-21-111-111-456, 5610432, 5610536, 5610459, Fax: 92-21-5610572 Email: helpdesk-khi@smeda.org.pk

**Peshawar:** Small and Medium Enterprise Development Authority, Ground Floor, Statelife Building, The Mall, Peshawar Cantt.Tel: 92 91-111-111-456, 92-91-9213046-7 Fax: 92-91-286908, Email: helpdesk-pew@smeda.org.pk

**Quetta:** Small and Medium Enterprise Development Authority, Bunglow No.15-A Chaman Housing Scheme, Airport Road, QuettaTel: 92-81-2831702, 92-81-2831623 Fax: 92-81-2831922, Email:



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### 1 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.



### 2 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data/information gathered from various reliable sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision; including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information.

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### 3 OBJECTIVES.

- To review Fried Onion Sector strength ,opportunity, threats, weakness
- To explain existing opportunity for investors in this sector.
- To Provide brief introduction regarding Fried Onion and its Process flow
- Fried Onion Process flow
- To provide a road map in identification of area and capacity.

### 4 CONCEPT OF ONION MARKET DEMAND.

Worldwide, onion is cultivated on about 5.2 million ha producing 9.8 million tons of production, which give an average yield of 19 tons per acre. China and India are the largest producers of onion in the world, while Pakistan with 138 thousand acre and 1.8 million tons of onion production stands at respectively 6th and 9th position in terms of onion area and production. The country contributes 2.1% in world onion area and 1.9% in its world production. The world export of onion during 2016 has reached at 7.3 million tons valued at US\$3.0 billion. India, Netherland, China and Mexico are the major onion exporters, while Pakistan's share in the world onion export is only 0.66%.

Onion is a fast moving agricultural product in international market. Its production and trade are expanding and per capita availability is increasing at a fast rate. Onion production from Pakistan is also expanding, but not as fast as at global growth implying that Pakistan is losing its position in international onion market. More importantly, onion expansion in Pakistan is horizontal, i.e., through increase in area while globally the expansion came horizontally as well as vertically, i.e., through improvement in yield. This has made the per ha yield of Pakistan 29% lower than the world average. Although growth in export from Pakistan has been higher from a small base



compared to international growth, but a wide gap in average world and Pakistani export price has stayed overtime suggesting that Pakistani has overtime failed to improve onion value chain to meet international onion quality standards. To enhance the competitiveness of this national and international importance crop and the potential of the crop to expand in the country, the SMEDA Balochistan has initiated this study to evaluate the whole value chain of onion, identify the gaps and investment opportunities, and suggest measures. To incorporate the regional variation, this analysis is undertaken at major onion producing clusters in the country.

To achieve the objectives of the study, the team collected macro data related to onion, a large number of stakeholders were consulted and literature were reviewed. This enabled us to collect information related to production, marketing, consumption, and trade, production and marketing margins, available potential technologies, new products and opportunities and their requirements for the up gradation of the whole value chain of the crop. Based on this data, an EXL model was developed to estimate the benefits and costs of suggested identified potential interventions along the value chain and their economic viabilities were estimated.

Onion is grown in all the provinces of Pakistan but three major onion growing clusters are identified in this study: i) Sindh Onion Cluster consists of Mirpurkhas, Umerkot, Jamshoro, Matiari, Sanghar and S. Benazirabad with Mirpurkhas as its center point, ii) KP Onion Cluster consists of Swat, Upper Dir, Lower Dir and Malakand with Swat as its center point, iii) In Balochistan, onion cultivation is concentrated in the districts of Nasirabad, Khuzdar, and Kalat with Nasirabad as its center point.

As part of this study, several performance gaps have been identified in the production, processing and trading components of onion value chain, specifically with the technology, market structure and availability of input drivers. These included the lack of improved commercial onion cultivars to produce high quality marketable fruit, absence of packaging, storage and packaging materials and improved transportation facilities, lack of group actions, while Fried onion are at low margin



this study focus on value chain of onion and its preservation as in Pakistan the storage capacity is very low while frying and value addition in this sector provide effective opportunity to preserve the product at very cheap cost and high return.

Onion (*Allium cepa* L) is one of the important condiments widely used in Pakistan throughout the year across all socioeconomic groups. The green leaves and immature and mature bulbs are eaten as raw or used in preparation of vegetables. Onions are also used in soups, sauces and for seasoning foods. The small bulbs are pickled in vinegar.

Recent research has suggested that onions in the diet may play a role in preventing heat stroke (Jillani, 2003). Onion bulb is rich in phosphorus, calcium and carbohydrates (Ali, 2018). Raw onions are very low in calories, with only 40 calories per 100 grams. By fresh weight, it contains 89% water, 9% carbs and 1.7% fiber, with tiny amounts of protein and fat (Bjarnadottir, 2015).

The supply of onion falls short during December-January and prices soar to more than five times compared with normal season. The onion supply increases from September to November. Onion is stored in refrigerated cooling to keep it dry and maintain its low humidity in the store (AMIS 2004).

Onion is one of the most common and important kitchen items in Pakistan which is needed as condiment to cook almost any vegetable. The consumption of onion has high income elasticity of demand. Thus, there will be more demand for onion with population and economic growth and urbanization (Fateh, 2009). In Pakistan the yield of onion crop is relatively low as compared to the international level (Mari et al., 2007).

In Pakistan, onion is grown on an area of 136 thousand ha with the production of 1.74 million tons across all the provinces and regions of Pakistan each having different harvesting periods giving some spread in the fresh availability of onion. Sindh is the major onion producing province as it alone contributes about 38% in area and 44% in onion production of the country followed by



Balochistan which contribute about 21% in area and 33% in production. The contribution of Punjab is second highest in the country's area but at third position in production because of its very low yield. The average yield in Pakistan is estimated at 12.8 t/ha. The KP province, followed by Baluchistan, have the highest while Punjab has the lowest per ha yields (Table 1).

Price fluctuation of onion is of seasonal in nature. In the post-harvest period the prices drop as low as Rs.2/kg whereas in the off-season these are quite high at Rs.100/kg. Thus, from the farmers' point of view they are denied of reasonable prices for their produce. On the other hand, consumers have to pay high prices during the off-season. Hence, Government have to import onion during the off-season to increase its supply in the market. There is considerable scope to increase onion area and production in Pakistan by using new technology and high yielding onion seed varieties (Noonari *et al.*, 2015).

# 5 IMPORTANCE OF VALUE ADDITION IN ONION SECTOR AND HEALTH BENIFIT.

Rich in nutritional value: Fried onions are a nutrition-dense food and contain many vitamins, minerals and antioxidants like quercetin and sulfur. They also contain minerals in calcium, iron, folate, magnesium, phosphorus and potassium in small amounts, which are all essential for the body. Onions are nutrient-dense, meaning they're low in calories but high in vitamins and minerals. One medium onion has just 44 calories but delivers a considerable dose of vitamins, minerals and fiber.

This vegetable is particularly high in vitamin C, a nutrient involved in regulating immune health, collagen production, tissue repair and iron absorption. Vitamin C also acts as a powerful antioxidant in your body, protecting your cells against damage caused by unstable molecules called free radicals



The global market for dry or fry onions is slated to witness substantial growth from 2021-2031, reaching US\$ 6.36 Bn by the end of the said forecast period- according to recently published estimates by market research & competitive intelligence provider Fact.MR. As of 2021, the market is likely to accumulate US\$ 3.86 Bn. Sales of dry onions for culinary applications will remain elevated, surpassing US\$ 1 Bn by 2022.

Market Size Value in 2021	US\$ 3.86 Bn
Project Market Forecast Value in 2031	US\$ 6.36 Bn
Global Growth Rate (2021-2031)	5.1%
Market Share of U.S	80%
Market Size Value in 2021	US\$ 3.86 Bn

Source: Apeda.in/Aggriexchange.com

According to market intelligence published by Fact.MR, demand for dry onions witnessed substantial growth in the historical period 2016-2020, clocking a CAGR of around 4%. Consumption has increased as they are easy to store and fry, coupled with the ability to enhance flavors of multiple food preparations. During the COVID-19 pandemic, consumption of dry onions increased majorly. Dry onions are especially rich in prebiotics, helping in the proliferation of gut bacteria which help build immunity against the infection. Several studies conducted during the



height of the pandemic revealed that onions possess anti-inflammatory substances, which could prevent histamine release and provide relief to patients. Future market demand is expected to remain reliant on the ever expanding popularity of dehydrated vegetables consumption, given their extended shelf life. Significant advancements in dehydration technology, such as spray drying and <u>vacuum drying</u>, are playing important roles in furthering sales of dry onions. Fact.MR forecasts the market to surge at a CAGR of 5.1% from 2021-2031.

### 6 PROCESS FLOW OF FRYING ONION.

Following will introduce some machines of this whole onion frying rings production line how onion is been drying and

Onion Root Cutting through Machine and Peeling through Machine: Machines can be used to cut onion tops and tails cleanly without damage, suitable for processing different kinds onions for making onion rings, with high efficiency and easy operation. And onion peeler is to remove onion skin.

**Onion Slicing machine:** Slicing machine is suitable for slicing onions into fine slices, ideal equipment for making onion ring, and thickness of sliced onion rings can be customized.

**Bubble Type Washing Machine:** This machine is suitable for washing all kinds of fruit and vegetable, here used to wash onion rings, using bubble, cycle surfing, high pressure spray washing to realize thoroughly cleaning.

**Drying Machine:** After washing, onions rings need drying for next frying step. This kind of drying machine is ideal equipment for removing surface water. Onion dehydration can be achieved by the high pressure and low temperature airflow, with oil stain and incrustation removing.



**Onion Rings Fryer:** Can fry not only onion rings but also other food like broad beans, peanuts, potato chips, spring roll and etc.. Different type machines for your selection, suitable for kinds of food frying. Adopts oil water mixture frying technology.

**Fried Onion Rings DE oiling Machine:** After frying, deoiling machine is used to remove extra oil from fried food quickly, and the extra oil will be collected by a plate, so this deolier is economical and practical.

**Flavoring Machine:** In order to produce better taste fried onion rings, often add different flavors. Octagonal type seasoning machine, which can mix flavors and onion rings evenly and discharge automatically. Whole machine is made of stainless steel 304.

**Automatic Packing Machine:** This automatic packing machine can be used for weighing, filling food, sealing and cutting automatically, suitable for packing any size and shape of puffed food, fried food and baked food. This equipment is controlled by computer, with high automation degree, high efficiency, labor saving.





### 7 FRYING ONION COMPANIES IN PAKISTAN.

Pakistan already has a significant market for Dry and Packed Onion . there are some companies that are working in this sector and are providing quality product to customers.

### • Noorani Production House

Noorani Production House the company that provides you the best Quality of Fried Onion But also believes in Long term Relationship come n do business with us because we are reliable

Telephone: 92-0333-3625964Address: flat # 102,prince appartment, plot # 307,alferd street, Nisther Road karachi, Karachi, Sindh, Pakistan



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### • MAIZONA (PVT) LTD

Maizona Pvt. Ltd., is a rapidly growing food company with presence in 4 Continents. The exporting to countries like USA, UK, Australia, Canada, Holand, Netherland etc. The stimulating Force that Led our Success the inspiration from Parents The business was initially started by them more then 10 ...

Telephone: 92-42-6302215Address: 19 Abbot Road, Plus Arcade, Lahore, Pakistan

### Olympic Food Industries(Pvt) Ltd

We deal in Fried onions of top grades Shelf life is minimum 6 months, further depending on the conditions kept in.

Telephone: 92 - 300 - 2215753Address: near gabol town Karachi Pakistan

### • Sa Trading Co.,

SA TRADIN CO., is a distinct Manufacturer & Exporter of Quality foodstuff and the First Only ISO 9001 Certified company in Pakistan for FRIED ONION. For any item interest from Pakistan. SA Trading Co., your Choice. CUSTOMER SATISFACTION IS OUR SUCCESS. Our quality products include Basmati ...

Telephone: 92 - 21 - 34212558Address: Suite # 6 & 7 ALSYED Arcade, Block 5 Gulshan Iqbal.

Karachi Sind 75300 Pakistan

In July 2020, The first charging station was set up at one of PSO stations located in Islamabad by Barqtron Energy Company. According to Federal Ministry of Energy, 24 more charging stations are being planned to be added at PSO stations across Pakistan.



