

## Consumer Value Preferences: A Case of Dates in Pakistan

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### Abstract

*This research endeavors to enhance our comprehension of the contemporary value chain associated with dates in the domestic market, while concurrently adapting to the fluctuating dynamics of the marketplace. A paramount emphasis is placed on orchestrating an optimal performance of the dates value chain by integrating all actors involved, focusing on aligning strategies with consumer value preferences. Five distinct focus discussions were conducted across varying socio-economic strata in Karachi to achieve this. Thematic content analysis, a rigorous qualitative research method, was employed to extract meaningful insights from the discussions. Findings showed that dates were a multi-value popular fruit consumed in a variety of forms but the fresh form is mostly utilized form. Consumers ascribed value to its strong religious affiliation, socio-cultural significance, taste, energy, health benefits, functional food, packaging and availability. The main attributes consumers considered in buying dates were clean dates, flavor/taste, packaging, origin, freshness, price, size, brand, and freedom from damage. Consumers expressed concerns about high dates fluctuating prices, trust for safe dates retailer practices, inefficient government regulations, poor marketing systems, and lack of awareness. These findings highlighted that businesses in date value chains did not pay adequate attention to consumer requirements nor had their concerns been responded to. To face competitive value chain potential, consumers highlighted lack of value addition, ineffective labelling, strong local brand sustainable presence to gain consumer confidence. To face market competition there is strong scope of branding, packaging and value addition which consumers are adapting at fast pace have also been reported. Consequently, it will affect the profitability of value chain participants as consumers are evolving with experience and higher living standards. The study also suggested that the government should ensure that consumer concerns such as those relating to food safety are adequately addressed by relevant institutions and organizations. This research not only sheds light on the intricacies of the current market dynamics but also provides strategic insights for stakeholders to optimize the value chain in a manner that resonates with the preferences of consumers across different socio-economic strata in Karachi.*

**Keywords:** Dates, consumer value, Pakistan, thematic content analysis.

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## INTRODUCTION

Date palm is an important subsistence fruit-grown crop in Pakistan, particularly in Sindh and Baluchistan province where it is a highly appreciated fruit (Hassan et al., 2006; Ata et al., 2012). Date palm cultivation is an important agricultural activity in Pakistan, providing significant socio-economic benefits to the country. The date palm sector employs millions of people in Pakistan, including growers, processors, traders, and exporters (Jain, Al-Khayri and Johnson, 2011). It also generates significant foreign exchange earnings for the country (Abul-Soad et al., 2015). Dates are famous for their sweet taste, nutrition, and flavor worldwide (Eoin, 2016). Dates have remarkable benefits and all ages can consume them as a primary energy source (Dughma, 2020). It has high nutritional and therapeutic value with significant antioxidant, antibacterial, antifungal, and anti-proliferative properties (Al-Alawi, 2017).

Dates have their prominence in Pakistan for religious importance, production, consumption and economic point of view (Al-Dashti et al., 2021, Rivera et al., 2015). The total global production of the date palm in 2022 was 9656377,75 MT (FAO, 2023; Alotheid, 2022). In many nations, the date farming sector is still in its early phases (Sirisena and Ajlouni, 2015).

Pakistan produced an estimated 5328795 tonnes of dates on an area of 102676 hectares with an average yield of 0,518 tonnes per hectare (FAO, 2022). Pakistan exported 121244,46 million tonnes of date fruits in 2022. The major countries importing dates from Pakistan are India, Canada, Denmark, Malaysia, UK, USA, and German. Despite ranking 6th in terms of global production, the share of export is far behind and local industry is in rudimentary state. Beside the fact that the planted area, production and exports of Dates have significantly raised but the performance of the industry is up to the world standards rather far below the standards. Similar to majority of fruits the growth of date palm and its shelf life is influenced by various detrimental environmental factors including precipitation, birds, wind, insects, microbial attacks, temperature, humidity, etc (Sarraf, et al., 2021). The high relative humidity contents is one of its most limiting factors (Krueger, 2021), specially early rains threaten to damage the crop (Mohammed et al, 2021), which causes major losses. The postharvest losses are high and these losses begin from preharvest due to monsoon rain (Rajapaksha et al., 2021; Kuyu, and Tola 2018). Critically, the unskilled labor managed harvest and post harvest exercises subject to extensive deterioration particularly most common mishandling of the fruit during transportation and marketing processes. Besides these production and post-harvest factors, marketing inefficiencies are responsible for this suboptimal performance (Rajapaksha et al., 2021). There is a growing realization that horticulture value chains operating in Pakistan lack an understanding of consumer preferences and concerns related to consumption. (Ghafoor et al., 2017). The overall sub-optimal performance of the entire value chain in the horticulture industry and affected profitability of chain actors is result of failure to deliver the value desired by consumers (Collins and Iqbal, 2011).

There is dearth of data regarding socio-economic conditions and food security status in date palm growing areas in Pakistan and it is also poorly documented (Suleri and Haq, 2009). Among numerous factors, the rural income in rural areas of Pakistan is severely affected by the on-farm exploitation of resources and inefficient post-harvest and marketing of dates (Goletti and Samman, 1999). The substantial portion of the fruit's final market value is mostly skimmed off by informal credits by commission agents, wholesalers, and contractors which severely damage date growers in Pakistan who often depend on advanced payments (Ata, 2011). Other than that Date palm growers are often limited in self-marketing of their products given their poor education (Khushk et al., 2009). Massive losses result from the overproduction of dates and inadequate processing, particularly for low-quality fruits. Around the world, significant losses during harvesting, storage, conditioning, and processing are said to reach 2 million tons annually (Besbes et al., 2009). About 30–40 % deterioration of fresh produce is reported before it reaches the consumer due to the prevalent traditional marketing structures (Badar et al., 2019). Other limitations

in date palm cultivation areas include low quality of date palm cultivars, poor farm management, lack of processing facilities, uncertainty in prices at the time of selling and shortage of qualified trained labor (Mahmoudi et al., 2008). Collaborative relationship and information sharing among horticulture value chain actors is mandatory for improvements in quality attributes (Badar & Ghafour, 2021). It not only generates tremendous livelihood activities in rural areas but it serves as satisfactory revenue for various value chain actors associated with it. Dates are eaten both as a fresh fruit and in a variety of processed and packed forms with almond or cashew nuts, dates with various chocolate flavorings, and dates with roasted almonds. Date fruit is transformed into high-value products such as dry powder, bars, honey, sugar, vinegar, mayonnaise, and paste and thus Dates are perfect food source for healthy lifestyle (Basuny et al., 2011; El-Sohaimy, and Hafez., 2010).

In recent years the global food system has transformed promptly, with greater swings in the food supply, international trade and food manufacturing, as well as individual consumer behavior and dietary patterns (Popkin 2017). Food preferences are an imperative element of food choice (Lyerly and Reeve 2015). Understanding consumer value preferences is perceived as critical globally for ensuring optimal performance of horticulture value chains, both from public and private sector perspectives (Gao et al., 2011; Mora et al., 2011). Kotler and Keller (2016), emphasized that consumption and buying preferences of consumers differ vary due to their varied socio-economic and cultural backgrounds. Preferences may exhibit definite attributes of foods that impact consumer preference at a given level of income and prices (Bell et al., 2021; Finaret and Masters, 2019). As compared to developed countries, there is meager studies conducted on consumer value preferences for fresh produce (Finzer et al., 2013). Consumer preferences and concerns are now setting bars and is now a widely held view that private sector profitability and public policy success cannot be accomplished without them (Poole et al., 2007). The performance of value chains cannot be improved without considering the insight of value by consumer (Taylor and Fearn, 2009).

Consumer preferences for quality parameters have altered, they are associated with intangible marketing attributes beside tangible attributes (Badar et al., 2015). Consecutively it is reported that the level of consciousness of food quality, safety and hygiene subjects is also growing due to varied living standards caused by income growth, urbanization and globalization (Badar et al., 2015; Trienekens et al., 2012; Akkerman et al., 2010). The date palm sector requires a major prioritized turn arounds to meet international standards that include varietal development, value addition and packaging to respond challenging competitive international market (El Hadrami and Al-Khayri, 2012) and to cater changing dynamics of local consumers with more international exposure and e-commerce gateways [social media] (Dwivedi and McDonald, 2020; Li, and Meshkova, (2013).

In Pakistan, dynamics of consumers are also witnessing a remarkable shifting, however there is lot more to know about what value they demand in horticulture products in general, and Dates in particular. Consequently, this study aims to better understand the importance of different food attributes for consumers in the context of a swiftly shifting changing environment in urban setting. Thus, this research identifies preferences, arguments, and concerns of Pakistani customers to propose solutions for the progress of the Pakistan Dates sector.

## **METHODOLOGY**

Focus group discussion as qualitative method was employed in this study since it is most utilized and better method to understand in depth motivation and consumer feelings (Mc Daniels and Gates, 1993). This method allows to obtain people's insight and opinions on the topic (Vaughan et al., 1996). Qualitative data collected through five focus group discussions (FGDs) which were conducted in Karachi which is the biggest metropolitan city with consumers belonging to diverse social strata. Each focus group discussion lasts

on average for 60 to 90 minutes and were conducted during the month of June, 2020. The moderator of the FGD's was Principal Investigator accompanied with trained facilitators for market research. All the FGD's were materialized with pre-tested topic guide prepared from relevant literature and academic discussions further it was mainly based on background of similar study conducted by Badar et al., 2016 and it is modified for current study.

The FGD topic guide consists for obtaining socio-demographic profile of respondents and gathering in depth understanding of participants views for dates consumption pattern, buying preferences, perception about production and marketing strategies, food safety concerns and their attitude and behavior for branding, packaging, and value addition of dates. For better understanding and response from consumers about perceptions, opinions, and experiences, all the discussions were carried out mainly in Urdu which is national language of Pakistan. After recognizing targeted participants, finalizing all the necessary arrangements the each FGD conducted. Prior consent and oral notification of taping was informed, further all discussions recorded by digital voice recorder for further analysis.

To extract key themes from the qualitative data obtained by focus group conversations, thematic content analysis was done using the qualitative program NVivo 10. This data was afterwards coded in the program at main nodes and child nodes, resulting in the extraction of five key themes. All together 45 consumers contributed in these focus group discussions. The first group comprised of eight Dates consumers from the qualified colleagues and peers from academia which include agriculture biotechnologist, horticulturist, entomologist, plant protectionist, plant pathologist and food scientist. All the participants acquired higher post-graduation education and belonged to medium and high-income groups. This particular group facilitated in valuable guideline for general idea improvement, value preferences and to select and recruit other focus groups. (Table 1). The second focus group comprised of 10 male dates consumers belonging to low income group (less than PKR 10,000 to 10,001 – 50,000 per month) acquiring low to medium education level. The third focus group was conducted with 6 male and 2 female Dates consumers who belonged to the middle house hold income group (PKR 50,001 to 10,0000 per month) with graduation and post-graduation education level. The fourth focus group also comprised of nine male consumers from a high income group (more than PKR 10,0000 per month). The fifth group specifically comprised of ten female participants representing different income groups and mostly home makers and mothers. Since in Pakistan due to societal norms and culture it is not suitable to conduct focus group with males and female together particularly married females.

## **RESULTS AND DISCUSSION**

In the consumer focus group discussions (FGDs), thematic content analysis highlighted five main themes which are further segregated into sub-themes explained below (Fig. 1). These themes concepts included strong religious affiliation, consumption preferences, buying preferences, food safety concerns and consumers' concerns and perception about branding, packaging and value addition.

### **Strong religious affiliation**

The first theme of FGDs was the strong religious affiliation among Dates consumers. Under this theme, consumers expressed their extreme devotion, affiliation, and respect for Dates, which further categorized into three sub-themes including Ramadan, Sunnah/Hadith and description in Holy Quran respectively. FGDs showed extra ordinary recognition and acceptance of Dates among across all social strata. All FGD participants showed their consumption and dates utilization as mandatory during Ramadan. All focus groups' participants exhibited a significant preference for dates by expressing valuable contexts such as

“The fruit of paradise”, “mentioned in Holy Quran” , Sunnah of Prophet Muhammad (P.B.U.H), “mandatory to break the fast” and “favourite of all”. ‘Dates presence in home is essential’, ‘Consuming dates fulfills multiple Suunahs’(participants’ view)

Most of the participants quoted various Hadith and Holy Quranic verses references for the multi-dimensional significance of dates. While the proverb “one apple a day keeps the doctor away” is well-known in most parts of the world, the Muslim equivalent is “seven dates a day keeps the doctor away.” The Prophet of Islam argued that seven dates in the morning protect a person from toxins (Sahih al-Bukhari 5445). This gives dates a mystical and almost supernatural quality. Dates are mentioned about 20 times in the Holy Holy Quran and more than 50 times in the Christian Bible (Saraf et al., 2021; FAO, 2020). Dates are a symbol of wealth, victory, faith, power, and abundance and have a special place in Islamic history and culture.

The academia FGD participants concentrate on nutritional awareness among consumers beside religious value so that it can be more consumed all year round for healthy lifestyle. As one participant quoted,

‘60 to 70% consumption in Ramadaan thus Ramadaan trend’(participant’s view)

Dates are not only religious affiliation to Islam but other religions also have high importance, specially Hindu religion have strong association for their worship rituals as mentioned by one of Hindu participant Hindus consumed dates during their festive season like goddess Durga Navaratri fasting, Dussehra, Diwali, and Chhath Puja as Niaz round the corner. Another participant added that, ‘Whenever there is some distress in home 5 unmarried girls are hosted for ten days in Nawaratri and they are presented with Dates kheer’, beside this dates we use dates specially in soan halwa, sawian, ata halwa. We also prepare special meal for children under 4 years as a nutritious meal’.

‘dates are even in more demand as they are an excellent way to sweeten desserts for diabetics’. And ‘Specially in winter we mostly buy for the whole year, every good deed (Subh kaam) is started with dates specially while reading Ganesh path prasad, in Janamshtri’ (participant’s view)

Christian participants also mentioned their pronounced religious affiliation with dates. They mostly prefer soft (naram) dates and prefer to buy monthly from any shop or supermarket whichever is affordable. According to majority of them their elder’s advice them to use dates in limited amount as its ‘hot nature [garam]and may cause ‘Stomach heat [maiday ma garmi]’. A night before Christaman they cook ‘kheer’ with dates and on Christman morning they cook “Sawaian” with dates. In the Sunday before Easter Sunday, the leaves of the palm tree are used in “Palm Sunday”/Poam Sunday and in procession [juloas] they keep dates leaves with them and give due care that does not touch the foot after that dates leaves are burnt and their ashes kept which they use before their fasting season in Ash Wednesday [Rakh ka Bout] and apply ashes on forehead. It is also known as Ash Monday, Clean Monday or Green Monday.

For us its [Dates] sign of strength, peace, righteousness, victory, and fertility (participant’s view).

#### Consumption preferences

The second theme of FGDs was the consumption preferences of Dates consumers. Under this theme, consumers articulated their enjoyment and likeness associated to Dates, preferred consumption forms, factors for consideration, varietal/cultivar preferences, frequency of consumption and best time to consume dates. These sub-themes are explained below. Consumers loved to consume Dates predominantly due to their taste, which they described as ‘tasty’, ‘delicious’, ‘sweetness’, ‘extremely sweet’ ‘chocolate like’, ‘pleasurable’ and ‘buttery’. Other reasons stated to its multiple benefits for liking Dates and described as ‘complete diet’, ‘energy’, ‘full of health benefits’, ‘Karma’; “cooling and soothing in nature and provides strength”. The medicinal values emphasized by ‘natural

medicine', 'natural vitamin', 'root decoction', 'immunity' and 'instant energy booster'. Mostly participants associate their first thought during an activity in FGD session to think what comes after dates in their mind they stated, 'Ramadan', 'religious value', 'complete food/nutrition in any environment',

"Nutrient rich, [muqamal ghiza], even those who do not use it frequently they have firm believe on this fact....', 'like milk is called complete rich food so as the dates...') (participants' view),

Also, participants presented that it Iron and potassium rich source (Siddiq et al., 2013), protein rich, greater shelf life, dry dates [Chohara] significance as per nutrition, wedding necessary and obligatory ritual [Bidh], religious affiliation of Hindus for Prasaad and other offerings. 'Dates are integral part of my shakes'. 'dates value added products are getting popularity and their market growth is accelerating thus user approach may increase....'. Female participant emphasized beside liking fresh dates, 'I love dates biscuits'. 'In Ramadaan dates are strictly consumed so the habit as well as taste develop for dates since early childhood'. 'In Kheer dates are consumed and in Sawaian...'.

Several studies in the literature have analyzed consumers' preference for fruits here focusing on dry fruits, Sabe et al., (2008) presented that product familiarity is the primary factor influencing purchase intention while Jesionkowska et al., (2009) and colleagues indicated that the primary factors influencing the selection of dried fruits that are thought to be high in useful components are health-related.. In the recent years, a lot of research has focused on the functional qualities and composition of dates and the byproducts serving as functional food and open new avenues in the era of nutraceuticals (El Hadrami and Al-Khayri, 2012). Other reasons included availability, accessibility, and the socio-cultural importance of the Dates which is discussed earlier in separate theme due to its exclusive prominence argued by all the FGD participants regardless of any socio-economic profile. It is reported that Date palm is socio-economically and traditionally significant for local people where the culture thrives (Jain, Al-Khayri and Johnson, 2011). It has been reported that Date fruits and their syrup, paste, and jelly derivatives have the potential to enhance the nutritional content of many dishes because to their low glycemic index, potential anti-diabetic impact, and antioxidant qualities (Ghnimi and Kamal-Eldin, 2015). Consumers liked to consume Dates for complete diet, considering 'mukamal ghiza'. Also it is liked due to multiple health and nutrition benefits because they considered it a 'super food', 'good source of energy', 'full of vitamins', 'energy booster',

"natural vitamins in a piece", "less expensive and without side effects natural vitamins source"(Participants' view)

Regardless of any socio-economic profile dates are integral part of wedding as it is distributed as mandatory ritual after Nikkah, it is also given as a gift 'Bidh' from groom family to bride family along with other dry fruits before marriage (when marriage is fixed) and after marriage as well. In Pakistan, dry dates as Chohara are commonly available shops at the shrines as a gift, while in Hindu communities, it is offered in the religious rituals at the shrines, predominantly at Diwali (Plannin division report 2020). Low-income participants considered dates important due to their

The most prominent Dates much utilized during religious span 'Ramadan Kareem' was mentioned as a contributor to its liking as all the consumers purchase equally; all the income groups to certain extent. Beside reservations described by low-income group as price one of limiting factor to buy beside their liking. In Ramadan Dates are consumed more frequently, more varieties and exchange as a respectable gift to family and friends and even corporate culture is gaining popularity in sending Ramadan and Eid gift pack with main highlights of different dates varieties in specialized gift packaging. This has opened new avenues specially for retailers and entrepreneurs who are creating value from this opportunity. It is in line to the findings that higher customer satisfaction levels are thought to increase client loyalty for retail establishments (Juhl et al., 2002). Although none of the

participants disliked Dates, only a few people, mostly from the medium and upper income levels, reported relatively lesser Dates intake due to apprehension and concerns for “diabetic”, “tooth sensitivity”, “allergy” (most possibly due to other dry fruits which are consumed with dates) and “hyper tensive” as showed concerns for medical issues by participants. Contradictory, many research have proven beneficial effect of dates and claiming strong anti-tumor, immune-modulating, anti-diabetic, anti-inflammatory, cholesterol lowering potential anti-cancer, cardio-protective, anti-inflammatory properties, functional food, and nutra-pharmaceutical attributes and encourage the growth of beneficial gut microflora (Hussain, et al., 2020; Younas, et al., 2020).

As far as participants views for forms of consumption, the focus group participants described Dates as a ‘multipurpose fruit’ that can be consumed both in fresh and processed forms such as milkshakes, protein shake, halwa, chutney, dried dates, stuffed dates, syruped dates, Nurr Chohara, pitted dates, pickle, cider/vinegar and other dates confectionaries. However, majority of the participants emphasized and preferred on utilizing it in fresh forms due to direct enjoyment of the Dates taste and ease of consumption beside the fact its other form like ‘Chohara’ is being utilized any way in different events. Specially referred by FGD 2 and 5 which included Hindu participants

‘it is served as chrhava/niyaz during pooja” and “khajoor is fast becoming popular as a sugar substitute for fitness who are cutting on sugar to lose weight and avoid diseases as mentioned in Ayurveda’ (participants’ view).

The seasonal span is mostly enjoyed by low-income, middle-income participants and female which provides them an opportunity to enjoy unripe dates ‘Khajji’ and was mentioned as a contributor to its liking as per low cost during season. Females also used it as low sugar and make other products from it. Among processed forms, consumers mainly liked milkshakes with dates and other fruits while dates being the integral part, ‘halwa’, dried dates, stuffed dates, dates halwa, dates with coconut, dates with chocolate coating, dates sugar, dates pickle and other dates confectionaries.

Clean dates was considered the major attribute and a measure of quality parameter especially among middle and high income groups in Pakistan and describes as “no compromise on clean dates, still wash them before use” (participant’s view). The result is similar to a study conducted by Gunden and Thomas, (2012) and reported that consumers tend to accord the same level of priority to hygiene and nutritional value, and the same level of priority to taste and price. Similarly, good packaging, special gift packaging and brand consciousness was more observed among high income groups and somehow lesser extent to middle income as compare to high income participants, similar results have been reported by Testa et al., 2023. Few participants shared their view, ‘presentation matters, people give consideration that looks good’, more conscious consumer commented, ‘we need clean and hygienic dates which are packaged or brand’ and one of the participants strongly condemn the retailers/repackers, ‘dishonesty everywhere, they [retailer] think customer are fool. They only make good packing not good quality... Do we have any rights?’.

In Pakistan, a number of Dates varieties are grown and consumed such as Aseel, Mazafati, Begum Jhangi, Zahidi, Karabalin Hilawi and Kupro apart from enormous number of varieties. However, as discussed earlier dates have more preference and association with Islamic values thus mainly Saudia dates are given preference and high devotion towards them. Most renowned exotic varieties with different origin mainly from Saudia, Iran, Iraq and Jordan reported by participants. The main varieties included were: Ajwa, Amber, Mabroom, Rabai/Kalmi, Sukri, Irani Zahidi, Sugai and Bum Iran. However, the preference for Ajwa variety was the highest in all FGDs, however not everyone can afford it rather consumed less frequently. The statement of a participant in FGD 1,3 and 4 reflects this as considering it as ‘King of Dates’, ‘the best’ and ‘the tastiest’ due to its Islamic value, Sunnah, taste, sweetness and prominently its brands availability, acceptability and highly motivation to buy. Everyone want to consume Ajwa mainly but its extremely costly, it was stated by almost all FGD participants. Mazafati, Irani, Aseel, Irani Zahidi, Ajwa, Mabroom,

Kalmi, Karabalian, Suagi, Sukhri, Nur Chohara, Basra, Begum Jhangi, Amber, Rabai, Sukri is mainly preferred among participants with lesser awareness of identification and variety name. Sukri 'taste like gurr', 'shaker jasi', 'heart does not fulfill, you can eat as much as you can'. "Kalmi tastes is similar to Mabroom, natural honey like taste". "Amber is miracle dates due to its maximum length". Rabai, "chocolate khajoor" and "Toffee khajoor". Irani sughai and Saudi sughai are most of the time mixed or misled to customer and ask higher price. Majority of the participants belonging to low to middle income group consume Zahidi which consumer called 'crispy date' is also among frequently consumed and purchased date specially by low-income group from informal retailers (roadside stalls and carts). Mazawati variety was regarded as the best for direct consumption and ranked the first because it is relatively uniformity in softness, taste, size, accessibility and availability. Mazawati Irani is most preferred in packaged "dabay wali" as available in most supermarkets and its cleanliness, packaging, branding and convenience. Zahidi, Aseel and Kalmi ranked the second most preferred Dates variety due to their special taste, season, texture and price affordability. Sukri, Amber, Piyaram, Suagi, Sharewfa, Baam were also given due consideration and they could have more consumer if market properly. Ajwa (Saudia), Ajwa (Iran), Mabroom (Saudia), Zahidi (Iran and Iraq), Rabai/Kalmi (Iran and Iraq), Amber and Majdoal liking was higher in high income, females and academic groups. In the low income focus group, its preference was low mainly due to their extreme higher price. Mabroom was mainly liked due to its large size, Sukhri and Suagi for specific taste and texture, Zahidi and Aseel and Begum Jhangi for relatively low price. Aseel and Begum Jhani were mostly disliked due to application of oil and poor presentation eventhough their low price and availability is the most attractive for most of the FGD participants. 'Aseel, best dates in Pakistan it does not rot for years'. Irani mazawati sometimes called 'irani ajwa'. Piyaram is considered as, 'copy of Saudi Mabroom and Irani Mabroom' (participants view).

Among almost in all FGD's the participants mostly like to consume dates daily beside the FGD 3 which constitute of mostly less age bracket. The discussion FGD participants of FGD 1,2 and 5 reflects that, frequency of consumption is related to Sunnah for consuming dates in odd number,

"it should be consumed in odd number" and "Doctors does not inform but Hakeems argued and informed to consume dates that either use 1, 3 or 5 or in the same manner use in odd numbers... it is extremely beneficial in this manner" (Participants' view).

In more than half of the FGD's participants articulates Hadith and Sunnah of consuming Ajwa specifically for prevention from evil and magic, 'if nothing is available its enough for the whole day'. Most of the participants among all FGD participants emphasized on consuming dates early in morning "before eating anything", "empty stomach [nehar moon]. Participants of FGD 2 and 3 mostly above 30 years age bracket, male and low to medium income level consume dates at night mostly with milk. However younger age group, almost equal in both genders prefer to consume dates shake. The teenagers preferred to consumed dates as snack and energizing during their university timing and those who do work out as their physical activity for muscle building (fitness) they consume sometimes twice a day at breakfast and as post work out protein shake as well. According to Sun and Liang's (2021), analysis of customer preferences for dried fruits by age group, younger consumers prioritize health-related considerations when making decisions, whereas older consumers choose convenience characteristics. More than few participants without gender biasness or income level use dates dessert after meals but mostly above 30 years age bracket. The female participants mostly who are mothers utilize different cooking methods like Halwa, chutney, dates paste, dry dates sugar or any other dessert (Sawaian, kheer, talbeena etc) and argued following reasons: 'to save from rotting', 'to make younger/their kids habitual to consume dates in any form' and 'to preserve the Sunnah and nutritional benefits'. Majority of the participants presented their level of consumption frequency view in this respect, 'Dates are available all year around', 'consumed by everyone', few participants argued that they have never come across anybody who dislikes date. Very few participants stated about their own



and household practice to consume dates only in Ramadan or at weddings. “Nabeez drink, favorite drink of Prophet Muhammaed (PBUH), it is a detox drink as it removes toxins from body. It is beneficial for neutralizing uric acid. Best time to drink it at Suhoor or before breakfast (nehar moon)”.

#### Dates buying preferences

The third theme centered around on Dates buying preference and four sub-themes were identified: Dates quality attributes, new trends, higher willingness to pay, partialities and preferences for retailer. Almost all the focus groups participants showed their higher to buy good quality Dates. However, the perception and defining attributes of a good quality Dates varied extensively among participants. Different attributes consideration in buying Dates were argued by the FGD participants discussed. In all FGDs, all the participants considered “clean” dates strict and foremost limitation. Beside it in all FGDs most of the participants considered: ‘flavor- sweet taste’, ‘good packaging’, ‘softness’, ‘flavor-mild sweetness’, ‘origin’, ‘texture’, ‘size’, ‘freshness’, ‘price’, ‘brand’, ‘undamaged’, ‘not expired’, and ‘skin free from disease’ explained as the most significant decisive attributes in buying Dates.

Dates cleanliness and retailer (traditional and modern both) cleanliness is considered as important factor by all income groups but most prominently it was most emphasized by the low-income group. This may be attributed to inability of low-income consumers to buy good quality Dates from good retailers. Similar results have been discussed by Badar et al., (2014) reporting low income group limited choice and access to traditional retailers. Consequently, they are compelling to buy inferior quality, spoiled and damaged Dates mainly due to excessive application of Oil. Subsequently, the middle-income group emphasis more on clean, packaging, brands, consistent supply of particular brand, insect free and variety. A few participants in this group also highlighted the importance of certification and retailers’ service. The high income group liked to buy properly packed, brand, exclusive packaging with proper labelling, similar approach was emphasized in a study declaring labelling as extrinsic cue which allows consumers to evaluate food products so as to make informed choices (Lagerkvist, 2013). In another study it was stated that the majority of consumers checked the labels to retrieve information; however, consumers suggested that label content was hard to understand (Aday, and Yener, 2014). They were of the view that a good quality Dates should be insect free, uniform, and not old product. The female focus group considered taste, appearance, softness, price and brand by retailers important. The academic group considered taste, softness, uniform quality, variety, brand, supermarket pack and free from oil to be important.

The participants anticipated to enjoy better quality Dates and almost more than 50% expressed their willingness to pay extra in variable income bracket. The low-income group was ready to pay an extra PKR 10-20 per kg and few more than PKR 50 per kg. The medium income group, female group and academic group indicated their willingness to pay PKR 40-70 per kg more. The higher income participants were even ready to pay an extra PKR 50-100 and few more than 100 per kg if Dates of their desired quality were available. The distinct expression hold by all FGDs that they consider and prefer good quality in less quantity at a slightly higher price than to spent on cheap low-quality Dates. Huddleston et al., (2009) presented that customer satisfaction is affected due to price differs among store formats. Retail outlets preferences were also considered and expressed by participants. As expressed by participants, local Dates of different varieties are readily available in the Ramadan at traditional marketplaces such as street vendors, roadside temporary, Suzuki, shops and permanent stallholders as well as modern superstores, online marts/stores and supermarket with different quality and discounts offers. However, as stated by a participant, “Mobile roadside cart (Thaila/Rehri) and Suzuki culture is dominant during Ramadan in Pakistan.” (participants’ view)

Majority of participants from the middle- and high-income focus groups indicated preference for modern retailers such as modern stores and supermarkets for buying Dates and middle age group and females preferred online buying. The major reasons cited for this preference included good quality, cleanliness, variety, packaging, brand, convenience, and fixed price. Display of products is also emphasized among low- and middle-income participants after hygiene practices at retail formats. Beside emerging trends of more frequent buying pattern from modern stores, there are concerns for not preferring modern stores which include major reasons as high prices, mix quality, congested areas, parking problems and distant location.

FGD 3 and 4, does not consider variety rather experience sweetness, texture, especially skin is not detached/damaged/injured it must be 'intact'; 'few varieties skin is detached and seems like cockroach wings, may be its old and moisture get so much evaporated that skin detached' and not hard crippy (skin issue is marked by many participants), softness and pulpy while buying. Clean dates most considered parameter. Specially in Karachi we come across that retailer on cart (thaila) with huge hump (pahar) of loose and opened dates in unhygienic environment, in busy traffic, alongside sewage (nala), on the sewage line, no cover, neither seller follow any personal hygiene practice. Just they call it Irani dates but we do not know how authentic their claim is. The dates bought from Thaila have insects inside.

'Hygienic, cleanliness is mostly considered in good packaging at least we do not see the packaging hygiene practice adapted, so we are willing to pay more'. Few of the respondents criticized supermarkets that they are selling costly but still do not provide good standards and their willingness to pay more is destroyed. 'That's why our confidence to local brands has not gained level of satisfaction and confidence'. 'If more standard maintains for hygiene people easily pay higher price because mostly dates are not consumed after washing thus if I take it out from shopper/package I will be more satisfied'. Many participants disagreed with dates washing and presented their view may be 20% wash dates. 'Mostly buy dates from departmental store/supermarkets Imtiaz, Chase and if visit Saddar so keenly buy from wholesale dates market from stalls and we mostly wash them in then store in refrigerator'. Dry variety is preferred but in Ramadan pulpy (Mazafati) is preferred which has more moisture. 'Even in packages there is unhygienic, non-uniform standards issue and poor condition/foul and we have to wash'. Few also showed interest to buy dates with calyx, stem and ripened on tree. Interest for pitted dates.

Lack of awareness among consumers regarding dates varieties and brands associated to ineffective marketing system. Most of the participants of high income and middle income considered brand awareness and quality attributes correlated to education and buying power. Suhaily and Darmoyo (2017), argued that the decision to buy is significantly influenced by the perceived value of the product, brand image, and perceived price thus consumer trust is significantly influenced by the perception of the product and influences the decision to buy. Almost in all the FGD's awareness and advertising through social media and social media strong role was identified, especially during Ramadan. Majority of the participants appreciated the advertisement of 'punjgur dates' brand through T.V, bill boards, social media and massive presence at supermarkets during Ramadan. The rising number of articles published on the fruit's many health advantages, and the labeling of the fruit as a superfruit by the media, have escalated the fruit's value (Lila, 2013; Crawford and Mellentin, 2008).

#### Food safety and other concerns

Consumers expressed their concerns about availability of safe Dates, prices, retailer practices, inefficient government regulations, poor marketing systems and lack of awareness, because of which they do not get the value they desire in Dates. These concerns are described below. The major consumer concern related to Dates prices. In literature it is stated that various agriculture commodities consumer demand is being hindered by high price (Aschemann-Witzel and Zielke, 2017). According to focus group participants, there

is considerable high price trends which had decreased Dates consumption in different social strata. As stated by a female participant,

“We are labor, poor we even finds difficulty to think to buy food how we thinks to eat and afford it [Dates]”(participants’ view)

‘Less consumption and buying is even prevailed in middle-class people who can afford it but their tendency is also decreased due to high prices.’ Participants complained that local dates available specially Aseel and Begum Jhangi in the market were applied with cooking oil. However, according to few participants in the low-income focus group stated contradictory statement as compare to others, “Application of oil is necessary to avoid their sticking together and prevent from flies”, another participant added “oil make dates more attractive”. However, majority of participants did not like oil application, mentioning “off flavor”, “dust stick on dates”, ‘sticky [chipki chipki] not good’, “throat infection’, “creepy skin stick in throat’ and sometimes mustard oil they use and it make it “not at all suitable to eat’. The low-income participants have limited choice, thus more concerned and compelled to buy from cart’s ‘thaila’ low quality Dates due to their financial constraints.

Few participants from Academia FGD having medium to high income showed their willingness of market availability of tree ripened and organic dates. Vapa-Tankosić et al., (2018) also reported that with higher education, and higher income level consumers would be willing to pay a premium up to 20% once a week for organic products. Few showed concerns for the unhygienic status of pitted dates available due to unsatisfactory hygienic practices being followed while removing pit. Most of the participants were unhappy with Dates retailers and wholesalers due to malpractices such as non-uniform quality, high profit margins, topping, miss leading or no information, mixing of low-cost similar looking variety, miss claim of origin, packing good quality at upper layer but beneath layer bad, poor storage, and quality mixing. Karagianni et al., 2003 mentioned significant several quality attributes, which are considered when buying, and consuming fruits which all the stakeholders must be adapted to instill consumer confidence, assure consumer satisfaction and therefore meet demand needs with improved production and marketing strategies. The participants criticized the inappropriate shelving arrangement, consistent availability of dates varieties, inconsistent availability of dates brands which they offer only in Ramadan otherwise consumer cannot find them, lack of discount offers beside Ramadan in which they cheat as well. Majority of the participants complained about high profit margins by retailers who set high prices regardless the quality they offer. Increasing purchase intention from online stores and increasing number of platforms with better competition and variety of offers and discounts. Few complained about the misconduct of what online store claimed and does not provide it and reported delays. But overall online service is getting popularity after pandemic, variety, and special offers (Jensen et al., 2021; Moon et al., 2012).

‘Mazawati from Iran you can see how they are arranged and pack’(Participants’ view)

A focus group participant from low income bar stated on this,

“We are compelled to give higher prices but we cannot question for good quality.”(participants’ view)

The discriminating trading practices of topping and quality mixing beside high profit margins is causing mistrust for retailers and consumer showed their arguement ‘Many times, I faced the same situation, cannot open the pack, only top layer good and beneath spoiled’. A participant in the FGD 4 group highlighting this concern stated, “Topping practice is considered normal, a routine conscious practice now. To my surprise many times, good quality Dates on top and small low-quality underneath, it is they [retailers] practice mostly”, “I bought Dates from wholesale 5 kg pack in which top layer was amazing while and bottom layers were mix, poor quality and pressed. When open, only disappointment and waste of money and food.” Similar results have also been documented by Badar et al., (2014), mentioning the unethical and unfair trading practices of retailers. It is one of the common practices during packing that retailers intentionally mix spoiled,

inferior quality fruit along with good quality fruit. Similarly, street vendors mix low quality dates into shopping which is surprise to consumer during consumption and waste of money thus different value chain actors, particularly retailers, exploited consumers through their malpractices. According to research by Alphonse and colleagues 2015, customers are most affected by the flavor of dried fruits and the features that provide legitimacy to them, such as fair trade and organic, for which they are ready to pay a premium. A middle-income group participant highlighted this as, “Who care here, laws and policies do exist but not active” and ‘There is no check and balance, only we [consumer] are suffering’

Almost all the participants regardless of age, gender, education level or income profile all showed major concerns and lack of confidence due to handling practices (pesticides and fumigants residues, foreign particles, insects and eggs), storage conditions, dishonesty, unauthentic claims and old product. In dry dates there are food safety issues including aflatoxin and other mycotoxin issue as there are many malpractices prevailed in dates drying and curing. One of the participants from FGD academia specifically highlighted the concerned as:

“They are dried on roads, in dirty environment, on dirty mats with no care or food safety standards are taken into practice. There is lot of contact with microorganisms, have microbial load and number of cross contamination possibilities which could be critical control points in ant food safety standard. May be there is no immediate effect but slowly consuming mycotoxin that may lead to secondary illness like kidney issues” (participants’ view).

Mostly participants are not aware about the varieties in our country because we have more religious value with dates rather than nutritious value. And give importance to religious affiliation with varieties as well and preferred specific origin varieties. But a little awareness has increased due to labeling of varieties at packages/brand available in supermarkets but still more people buy from thaila where the varieties are not mentioned. It is high time to promote dates with nutritional values through marketing and advertisement, it will increase the consumption of dates and eventually the health status will be far better. Participants of FGD academia FGD 1 and 3 specifically raised their voices for this concern and possible solutions,

‘There must be community-based gathering and other platforms for nutritional awareness of dates... like seminars, FFS, exhibitions, community gatherings, discount shops ....’ (participants’ view).

Participants in all focus groups strongly criticized government policies, ineffective controlling system, no food inspection, inappropriate control, ineffective measures for proper marketing system for uncontrol prices, associating increasing dollar rates, fuel prices, border issues, no action against frauds, not implementing any food laws food authority, not focusing local dates and their branding losing competition. In similar studies participants of studies pointed out that the government role to take keen attention and safeguard consumer benefits, further not only ensures suitable enforcement of prevailing regulations, but there is dire need to structure new laws (Qian, 2020).

There are reports of illness due to dates specially those who are diabetic. Also, people reported tooth ache/sensitivity (thanda garam), and few also reported stomach upset/diarrhea giving example of like those who are gluten intolerant. Few also reported may be its allergy to certain dry fruits like peanuts and not dates.

Supermarket brand is good but there is no one who can question them for quality. They can use any misleading information or false claim on their packaging. Similarly, they put certain ISO standards mark but neither we can assure nor its standard is traceable.

Other concerns which are actually major concerns included the following reports. Date palm weevil is one of the emerging issue and quantum of loss and production loss is increasing if it is not addressed timely. Climate change is specifically exaggerating losses

and issues at production due to fluctuate temperatures, moisture and changing monsoon spell as other crops are also affected. For resolving termites' issue there is application of pesticide/fumigants and also for date palm weevil through drenching. Phosphene tablets are used but not sure how much its residues in dates could be problem. There is need to assess geographical location and forming zones for already present date varieties or develop new improved varieties which can better respond to changing climate. Also, we must understand the flood system like in recent floods there were certain areas which were safe so they must be emphasized. There must be more focused research for intercropping practices in dates.

Consumers' concerns and perception about branding, packaging, and value addition

Consumers are getting more aware, and they have not only showed and reported concerns; they have given significant directions for all the dates sector's value chain actors for improvement in value chain which are necessary to boost local industry. In contrast to other tropical or subtropical fruits, date fruits are not sold as value added product (Sarraf et al., 2021). Consumer shift towards brands satisfaction, impact of exotic dates, consumer willingness to pay for better packaging, consumer keenness to more local brands, value added products, variety unawareness and opportunity for entrepreneurship have been identified.

In FGD 3 and 4 participants showed interest in low sweet varieties like

“Less sweet [pheetka] or even bitter must be give consideration as it is consumer demand”.  
(Participants' view)

One of the participants raised concerns and lack of confidence due to dishonesty of manufacturer over value added products as they could be adulterated. FGD academia, 3 and 5 emphasize the importance and accessibility of dates value added products but also emphasize their development on sound background of research and development. Participants of FGD 4, 2 and 5 showed reservations upon discontinuous market presence of value-added products. Mostly there is problem of taste, sourness (khataas), off flavoring, small insects crawling on seed (gutli) and old product.

There is strong need to review the labeling of dates because in Pakistan consumer is not much aware about dates varieties and they require much simple and effective labeling, one of the participants articulated; “I got confused brand with variety and vice versa in dates pack/brand only”. More confidence is associated with imagery of packaging like Saudi flag, sword, and Saudi culture for exotic dates but sometimes consumer's confidence shattered as well due to imitation. Proper marketing, advertising as other agri or dairy commodities has given due consideration. Value addition and branding is necessary because more and more people have exposure of other countries, and they are willing to consume and appreciate market presence of such products (Kristensen, 2012; Froehlich, 2009). ‘More brands and their proper advertisement are needed. One more thing above all awareness of our local variety, its promotion because until we do not incorporate branding and variety recognition and identification, we cannot create competitive brand’. ‘Supermarkets developed brand is good initiative, but they must maintain and improve the quality, standards, packaging and claims as per their cost. Value added products labeling must mention the variety’. Almost all FGD participants have same idea about value added products and have progressive approach for it, mentioning that value added products are better because they have more shelf life. Also emphasized that value added products are more reliable because the fresh dates they [consumer] consume it does not have strict regulations to be followed till it reach to consumer but if value addition occurs it will be channelized in more industrialized more structured form and it must follow certain quality assurance standards thus it will automatically gain consumer attraction due to following hygienic practices, following food quality standards and certain certification from food authorities.

Attractive packaging (local) does attract consumer but shatter their repurchase intention due to compromised product quality and non-uniform standard. Cardboard packaging is more preferred but preference to see through to some extent is more reliable. Plastic packaging with resealing is good option but quality must be good. Plastic container mostly liked by females because it can be reutilized for multiple purposes. Interestingly, one participant suggested the use of dates by products to be used as its own packaging to be more environmentally friendly packaging. 'I do not prefer plastic packaging because it may deteriorate the quality because there is no exchange of gas in it. And how far it is assured that retailer will keep it in cool place, and it is not sale on carts in sunlight. It can be only work well if there is temperature control environment'. Plastic is more attractive, more aesthetic value and seems cleaner. Particularly for dates plastic box with bottom black and transparent lid is more aesthetic rather than complete transparent because they seem untidy/blurry due to dates stickiness. On the other hand, cardboard packaging has more options of graphics and color schemes.

'Chabian is extremely good packaging promoting geographical indicator, culture, and heritage'. 'Health related products must be come into market like nutraceutical supplements and other health claimable products' (Participants' view)

Another use of dates gutli mentioned as a religious ritual of Soyem they are used for Tasbeeh. 'I have heard and also consumed date's trunk sap/syrup which is also used as sugar and in Bangladesh from same sugar Gurr is also made. It is available in Karachi area Mossa Colony'. Numerous items like baskets, rugs (used as mats for foot), fan etc. Crockery items from dates leaves are used in many households however its use has reduced but we must consider such things for environmental sustainability (Sodhi et al., 2022). One of the participants also raised his concern for value added products less acceptability, 'There is a problem in alternate sugars like stevia and dates, after taste is somehow bitter that is why people do not prefer although they are useful'. Ajwa gutli powder and paste useful for heart. Few also mentioned that dates gutli powder is useful in maintain diabetes. El Hadrami and Al-Khayri (2012) also reported a number of by-products derived from dates which have various uses.

In FGD of academics 1 they are partially satisfied with supermarkets dates, give less consideration to dry fruit stores and more interested to have experience of online. Few of the participants give attention to separate sections of dates in supermarket where clean and hygiene is maintained.

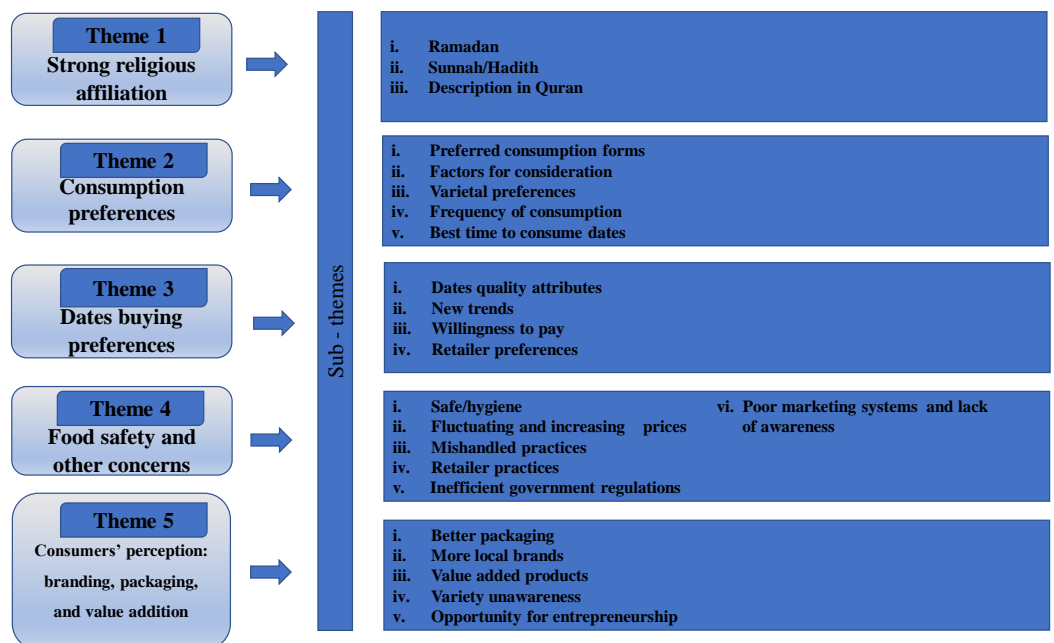
## CONCLUSION

Dates are well occupied in mindset of Pakistani consumers regardless their frequency and consumption level. Thus, its significance cannot be overlooked in comparison to any other fruits having higher level of consumption. Consumers being the most significant and controlling value chain actor while buying dates consider various factors like price, freshness, lack of damage, taste. But the changing dynamics has shown remarkable shift to other marketing related attributes in recent years. Including but not limited to hygiene, branding, packaging and value addition. In many countries, consumer responsiveness towards other marketing attributes is more and more expected to increase and same paradigm shift is seen in Pakistan. Considering this variation, the dates value chain actors in Pakistan must respond and align themselves to specific consumers need. Both public and private stakeholders (institutions) must mobilize their resources to accommodate new developments in dates marketing and value chain. There are many challenges being faced by each dates value chain actor of Pakistan dates sector which are raising the opportunities which can fill the needful gap in local as well as international market. Significant challenges are is lack of coordination, commitment, transparency, infrastructure, logistics, trade policies and funding. As argued by Ghnimi (2017), there is no internationally recognized system for date variety identification and categorization, many good kinds are unknown

outside of their home nations. These consist of fruit varieties that may be utilized in various culinary applications, such as soft, semi-hard, and hard fruit.

Malpractices of retailers, packers, distributors and unawareness of farmers are extremely damaging the consumers trust level, brand loyalty and shift to branding and value addition. Which shows extreme insensitivity and criminal negligence of value chain actors and irresponsibility of government regulatory mechanism. It requires immediate, strategic and coordinated measures by public sector and legal entities to facilitate, implement and regulate actions to respond all consumer concerns. The major concerns reported and document include; price issues, on-uniformity, grading, hygiene, food safety, labelling, authenticity to certification, traceability, tempering, topping, mixing, date of expiry issues, authenticity of variety, avoid false claims, strategic branding focusing local national attributes and more awareness of local varieties, awareness and training of value addition, consistent supply, quality of packaging. Due to less price offered by traditional retailers, most of the consumers of low-income groups left with this option. Thus, traditional retailer must upgrade their facilities and standards at least minimum satisfaction level of consumers.

There is strong scope of branding, packaging and value addition which consumers are adapting at fast pace. But there is not much serious considerations have been given by value chain actors beside well aware about its need. Due to high religious affiliation for dates in Pakistan, its branding has lot more potential than other fruits. Other than that varietal characters, taste preferences, health and nutritional benefits, gift packaging, hygiene, competitive price, adapting food safety guidelines and value addition can play a game changer role in dates brand development in Pakistan at local as well as international level.



Variable	Category	FG 1 (n=8)	FG 2 (n=10)	FG 3 (n=8)	FG 4 (n=9)	FG 5 (n=10)	Total (n=45)
<b>Gender</b>	Male	75	100	62.5	100	0	66.67
	Female	25	0	37.5	0	100	33.33
<b>Age (Years)</b>	21 - 30	12.5	20	50	0	30	22.22
	31 – 40	37.5	30	37.5	11.11	40	31.11
	41 – 50	37.5	20	12.5	44.44	10	24.44
	51 – 60	12.5	30	0	22.22	20	17.78
<b>Education</b>	Above 60	0	0	0	22.22	0	4.44
	Primary school	0	20	0	0	20	8.89
	Secondary school	0	10	0	11.11	10	6.67
	Intermediate/high school	0	10	0	11.11	20	8.89
	Undergraduate	0	30	25	55.56	10	24.44
	Graduate	0	20	25	22.22	40	22.22
<b>Family type</b>	Postgraduate	100	0	50	0.00	0	26.67
	No formal education	0	10	0	0.00	0	2.22
	Nuclear	25	10	25	22.22	10	17.78
	Joint	62.5	50	50	44.44	50	51.11
<b>Family Member in the household</b>	Extended	12.5	40	25	33.33	40	31.11
	1-2	12.5	10	12.5	11.11	10	11.11
<b>Household Income per month (PKR)</b>	3 - 4	12.5	0	12.5	11.11	10	8.89
	5 - 6	37.5	60	25	33.33	20	35.56
	6 +	12.5	30	50	44.44	60	40.00
<b>Health status</b>	Less than Rs. 10,000	0	0	0	0	20	4.44
	Rs. 10, 001 – 20, 000	0	20	0	0	10	6.67
	Rs. 20, 001 – 30, 000	0	30	25	0	30	17.78
	Rs. 30, 001 – 50, 000	0	20	37.5	0	30	17.78
<b>Health status</b>	Rs. 50, 001 – 100, 000	37.5	30	37.5	44.44	10	31.11
	Rs. 100, 000 - Rs. 500, 000	62.5	0	0	55.56	0	22.22
	Excellent	37.5	30	50	0	10	24.44
	Very good	37.5	30	25	11.11	30	26.67
	Good	25	30	12.5	33.33	30	26.67
<b>Health status</b>	Fair	0	10	0	33.33	20	13.33
	Poor	0	0	0	22.22	10	6.67

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