



Fallacies and behaviors of Lebanese consumers towards marketing of honey

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Abstract

The study evaluates and investigates the Lebanese people's definition of authentic honey. It also focuses on their misconceptions and behaviors towards the marketing of honey in Lebanon. The study scrutinizes the Lebanese people's knowledge and perception of honey consumption and marketing in identifying the attributes of ideal honey and the chief factors affecting the consumers' purchasing habits. The study is conducted using a quantitative questionnaire, which is asked for a sample of 1254 honey consumers from various areas in Lebanon. The most noteworthy findings are: about 58% of the participants check if their honey is adulterated or not; 75% of the participants don't trust honey labels claiming that it is 100% natural; and 40% purchase their honey directly from beekeepers.

Keywords: honey, consumer behavior, marketing, adulteration and Lebanon

1. Introduction

One of the oldest nutriments that has been marketed and used for millenniums in natural remedies, beauty products, foods and drinks is honey [1]. It consists mainly of complex carbohydrates that are directly linked to the diverse floral sources [2]. Studies assert that daily consumption of pure raw honey improves blood antioxidant levels, provides energy, and heals effectively. Studies also show that honey is an antiseptic and emollient that soothes and externally encourages the growth of new skin [3-6]. During early times people had very limited sources of sweeteners that impelled them to use honey [7]. We conjecture that these miscellaneous uses influenced its market anciently.

In the contemporaneous days, multitudinous changes occur in honey production and marketing due the growing demand of this liquid gold elixir [8]. The continual rise in honey demand attributed to its therapeutic and medicinal properties boosts its production. Furthermore, the importing/exporting factor stimulates its international market expansion. All of these influences, in addition to the new academic researches that focus on the chemical analysis and nutritional composition of honey result in a positive and negative (adulteration) effect on its market [9]. The low supply of honey triggers the elevation of honey adulteration, pasteurization and de-crystallization to cover its high demand and extended market. Moreover, it escalates the producers' profits by creating the customer needs regardless of the quality characteristics the honey loses [10-11]. Nevertheless, most honey consumers suffer from misconceptions about this matter, which initiate the fallacies and delusions the honey consumers currently pertain [12]. These misconceptions ensue incorrect honey purchasing habits; the latter led the honey producers to divide their market according to the consumer behavior, knowledge and perceptions [13].

The international honey production augmented to cover the market needs; for instance, in 2013, about 1.66 million metric tons of honey was produced all over the world [9]. The chief producers of this global commodity in 2015 were respectively: China (505000 tons), Turkey (88,162 tons), Argentina (75,500 tons), and others. Seeking and pursuing the best marketing strategies by these countries aid in expanding their honey market share locally and internationally, while being thoughtful about the consumers' behavior as the most important factor [14-16].

All of the aforementioned honey aspects directly trigger the honey marketing which has always been an ancient art. The American Marketing Association expounds that marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. [17] Lots of studies look at the marketing of honey from the point of views related to its consumers' behaviors. These behaviors encompass the processes of individuals, groups, or organizational activities when searching, selecting, purchasing, using, evaluating, and disposing of products and services that can satisfy their needs and desires. Studying and analyzing these activities can facilitate and enhance the marketing of honey due to their impact on other consumers and societies [18, 19]. Several fundamental factors are linked together as an involved chain for accomplishing successful honey marketing: production, consumption, consumer behavior and a well-established relationship marketing to pertain the consumer.

Relationship marketing is a powerful asset for the consumer behavior analysis since it is a process of attracting, maintaining, and enhancing relationships with key individuals over time. Relationship marketing has a keen interest in the discovery of the true meaning of marketing through the reaffirmation of the importance of the customer or buyer. A

greater importance is also placed on consumer retention, customer relationship management, personalization, customization and one-to-one marketing. Social functions can be categorized into social choice and welfare functions. Developing proper relationship marketing between the consumer and beekeepers of authentic honey can improve the market of the local honey ^[20-22].

It is vital to highlight also on the honey consumption, since it is the base for every action in the marketing of honey. 90% of the honey produced in the world is consumed directly as table honey, the remaining 10% is used as an ingredient in a diverse range of products be it food, cosmetics and medicine ^[23]. Despite the benefits of the honey, its marketing continues to face a number of obstacles because the amount of honey a beekeeper can sell and a purchaser can buy in the Lebanese market depends directly on the consumer behavior ^[24-26].

Lebanese Beekeepers Production Influences

The presence of different altitudes (from 0 to 3,000 m), the four distinct seasons (Mediterranean weather) and its plants variety, makes flowering season exist almost all over the year in Lebanon. All these attributes make Lebanon one of the rare countries where the natural sources of nectar are secured for the bees throughout the year, enhancing the production of a wide variety of honey (mono and poly-floral), each with its unique aromas and virtues. Because of these advantages, a beekeeper in Lebanon can harvest honey three times per year. ^[23] Most of the honey produced all over the world, and almost all the Lebanese honey, is “poly-floral”, this means that the bees have fed on the nectar of various types of flowers. Poly-flora honey In Lebanon is called “mountain”, “black” and “Jerd” honey ^[27, 28].

Even though there are around 6,340 Lebanese beekeepers owning 274,390 beehives, the amount of honey produced in Lebanon is not immense. This means it cannot fulfill the needs of the internal market (covers only 25% of local demand). ^[29] According to Saab Wehbe, president of Lebanon's Beekeeper's Association, between 18,000 to 20,000 tons of honey are produced per year, most of what is produced is sold in the Lebanese market and 2% is exported to Arab countries and 3% to Japan ^[30].

This declining production leads to the import of about 232 tons of honey every year from Saudi Arabia (42.61%), Oman (29.02%), Germany (10.91%), Spain (5.84%), and Greece (4.53%). In the first place, the most sold honey by the beekeepers in Lebanon is the unknown and unbranded one and directly sold by beekeepers because of the established trust. In the second place, comes the Lebanese branded honey like L'atelier Du Miel, Jabal Al Sheikh, Jibal Loubnan, Al Sindyanah and Al Kaddoum. The competition between these brands in the Lebanese honey market is usually low, as their local supply generally does not cover the demand ^[29].

Pricing of Honey

Pricing of honey products is an essential aspect in the process of sales and profitability achievement in the Lebanese market ^[23]. The price of one kilogram of Lebanese produced honey varies between \$20 (Citrus blossom) to \$35 (Oak honey) on average, depending on availability of honey and customers' preference. Although the Lebanese government imposes 8,000 LBP/kg tax on imported honey, it is still cheaper than the locally produced one. The main question here is: Are the

production costs for the Lebanese honey high or are the beekeepers selling it for high prices?! More researches need to be done in this area for further clarifications. In general, the customer has the choice to select the suitable price among all kinds of honey (Local and imported) sold on supermarket shelves. This price varies between LBP 20,000 and LBP 60,000 per Kg. Other categories are sold for 55000 LBP per 300g with prices tending to escalate when organic. Lebanese consumers purchase unbranded honey directly from beekeepers with prices higher than those sold at the supermarkets. These consumers have a widespread misconception believing that beekeepers' honey is more guaranteed than the latter. Knowing that there are neither quality guarantees nor labels present on the jars ^[23].

Adulteration of honey

Honey adulteration is supposed to be a very old method in the field of marketing. It reached its climax in the 20th century (1970) when the industry introduced the high fructose corn syrup (HFCS) for the first time ^[31]. Since then, several adulteration methods have been developed and used. These methods range from adding different sugar syrups produced from beets or canes during or after honey production; starch-based syrups, glucose syrup (GS) and saccharose syrups (SS). Moreover, honey can be mixed by starch or flour and gypsum ^[32]. A lot of honey consumers think that granulated or crystallized honey is a proof of adulteration with sugar which is a wide spread misconception. Indeed, scientifically honey is a supersaturated sugar solution and can granulate normally since crystallization is one of its characteristics especially in temperate climates.

Color of honey

The color of honey (in liquid state) varies from clear and colorless (like water) to dark amber or black. Honey's color has a very essential aspect that determines its value for marketing. Usually, the consumers' preferences are determined by the color of honey in many countries that have large honey markets. Determining import and wholesale prices of honey falls on its color and being considered as the most important factor in marketing. In general, lighter honeys are marketed for direct consumption while the dark ones are more often for industrial use ^[33].

Crystallization

The crystallization or granulation of honey is a normal phenomenon by which honey transforms from liquid (runny) state to a semi-solid state ^[34]. As it was mentioned before, many honey consumers think that if honey is crystallized then it has gone bad because it has been adulterated with sugar water and this is a misconception of many consumers. The truth is that the ongoing process of crystallization applies to all honeys ^[35]. Crystallization characteristic of honey plays a very important role in its marketing and price determination ^[23].

Packaging

Large quantities of honey are sold in Lebanon by specific jar sizes criteria including 1 Kg, ½ Kg, and 200 g. Nevertheless, the Lebanese honey companies have recently responded to the demand of certain luxurious local hotels and restaurants regarding the jar sizes. Lately, the quantity production of the

Lebanese branded honey has increased in the market. This results in its ability of penetrating in the wholesale and retail distribution networks. In recent years, branded honey, Lebanese made, has increased in quantity production in the market and was able to penetrate in the wholesale and retail distribution networks. Hotels, restaurants, pharmacies, and caterers are considered major clients of retailing consumers. Hotels recognize the growing demand of honey consumption by their customers, thus its inclusion in their service is a key factor for customers' satisfaction. Most hotels with B/B accommodation basis depend greatly on attractive morning breakfast, which critically influences the honey display whether in mini jars, sachets, or pots.

2. Problem Statement

Centered on the principles of the consumers' behaviors, honey marketing in Lebanon is considered much more complicated compared to honey international marketing. This marketing complication is analyzed as being directly proportional and linked to the misconceptions and knowledge deficit of the Lebanese consumer behavior. It is asserted that more research in the honey market field is needed to prompt honey purchasing and marketers' micro understanding to the Lebanese honey consumers. All factors mentioned above trigger us to conduct this study in having a further insight of intricate Lebanese purchasing habits. Quite a few studies are conducted about the Lebanese honey market which are the USAID import/export honey rate study, BLOM Bank study dealing with current economical honey situation in Lebanon, CNB organization Lebanese Honey feasibility study and Nader Shehadeh case study about the Lebanese beehives family business.^[23, 27, 29, 36]

As previously stated, diverse factors do control the Lebanese honey purchasing. This comprises taking hold of its production and marketing be it; price, color, crystallization, adulteration and packaging. To satisfy the consumer longing, these honey specifications and characteristics have to be taken into a thoughtful consideration, as they affect the way consumers purchase its various kinds. However, we need to mention a noteworthy problem existing in the current Lebanese honey market, which is the purchasing struggle between the local and imported honey as for the quality of the unadulterated Lebanese honey is very high compared to the imported honey.

3. Research Methodology

Descriptive research is attempted in this study. The research design is a mixed-method study that involves multiple data collection methods. Primary and secondary data collection methods are used. Primary data are collected initially by covert observations for the Lebanese honey market. Then researchers conduct interviews with the respondents supplementing the primary source of data. These primary data give flexibility to follow up questions or discuss issues concerning the topic of study. In addition, a standardized survey questionnaire is distributed all over Lebanon on a sample of 1254 Lebanese honey consumers of both genders between 17 and 70 years-old to assess the validation of the study. Another data collection method is the secondary data which is collected from multiple journal articles and publications, books, and sites. The time frame of the study is cross-sectional. It is settled in to investigate Lebanese people

acquaintance and knowledge towards defining how genuine honey is perceived and how much familiar people are with such food from the marketing viewpoint. The study protocol is completed after the participants filled-up the self-administered questionnaire which is translated to Arabic to facilitate the research process. It includes 8 demographic questions and more than 20 questions in regards to the consumer behavior towards honey characteristics perception and preferences, which took around 8 to 10 minutes to fill-up.

Consent Form

Every participant filled, signed, and received a consent form to confirm his agreement on his deliberate voluntary participation in the study; study conditions were explained to participants.

Statistical Analysis

Q Recorder, a special program was designed for this study for data collection and statistical analysis by "Scope" which is a leading company in software development.

4. Results

The following results were the statistical findings of the study.

1. 48.86% of the participants were males, whereas 48.48% were females and 2.63% didn't answer.
2. The majority of the participant's age group (43.94%) were between 20 and 29, (17.38%) were between 30 and 39, (15.47%) were between 40 and 49, (11.56%) were 19 and under, (6.06%) were between 50 and 59, (3.35%) were 60 and above, and (2.23%) of the participants gave no answer.
3. Most participants were born in Beirut (61.40%) Mount Lebanon (14.27%), North (7.89%), South (4.55%), and Bekaa' (0.24%). Others include foreigners from diverse nationalities like Palestinians residing in Lebanon (11.08). Finally, people who gave no answer were (0.56%).
4. Among these participants, 16.51% were with the same high school, 14.35% were high school graduates, 17.15% were with the same college, 33.49% were college graduates, 5.42% uneducated and finally 13.08% of people preferred not to answer.
5. As well, the single participants were about 53.75%, and then came the married ones who were 38.44%, the widowed were 2.31%, the divorced 2.15%, 1.04% were separated and finally 2.31% didn't answer.
6. 35.33% preferred not to answer, 30.78% said their income is between 500 and 1000\$ monthly, 15.95%, earned below 500 \$ monthly, 13.56% said that their income per month ranged between 1000 and 2000\$ and only 4.39% had a 2000\$ or more as the true option.
7. 46.81% of the participants favored to consume the same brand always, while 43.7% preferred to discover new kinds and brands and 9.49% gave no answer.
8. 49.44% of the participants didn't specify how often they consumed honey, 22.65% consumed it daily, 16.35% consumed it yearly, and 2.71% didn't provide an answer.
9. 37.38% of the participants checked if the honey was pure or adulterated, 20.89% sometimes did check, 27.35% depended since they are not the ones who buy honey in the house, 12.92% never checked the honey and 0.96% gave no answer.

10. 38.76% of the Lebanese honey consumers chose it from local sources, 19.7% chose it foreign, 22.89% chose it based on its ingredients and floral source, 14.27% chose any kind of honey as long as it is pure and 4.39% didn't answer.
11. Figure 1: The participants didn't know honey adulteration methods reached 24.88%, while those who knew that honey can be adulterated using: diverted sugar were 53.67%, water were 6.62%, corn flour were 2.79 %, glucose were 8.93%, molasses were 2.55%, and 0.56% gave no answer.
12. Figure 2: 15.87% of the participants would buy the honey even if they knew that the bees were fed sugar, while 77.43% wouldn't and 6.70% didn't provide an answer.
13. 48.72% considered that color doesn't affect the quality of honey, 27.59% thought that the darker the honey, the better the quality, only 19.54% bonded the light honey color with a better quality, and 4.15% didn't give an answer.
14. One kilogram of honey was the most preferred size for most of the participants 26%, 23.29% came next preferring a half kilogram of honey, 27.91% had no preference for the size of the honey jar and thought that it's not a matter to them, 6.86% preferred purchasing the sample size jar, and only 12.92% favored and chose the 0.25 kilogram jar.
15. Figure 3: When selecting the superlative type of packaging, the preferred package for honey was the glass jar as it was chosen by 76.71% of the honey consumers, whereas 9.97% selected the plastic jar, 10.13% preferred other forms, and 3.19% didn't give an answer.
16. Participants were asked which honey price attracted them the most. 51.52% were mostly attracted by honey with normal prices, 37.48% were attracted by expensive honey prices, cheap prices were attracted by 6.78%, and 4.23% didn't answer.
17. Figure 4: Directly from the beekeeper was the preferred source of honey to the Lebanese honey consumers in which 40.11% preferred this source, 36.36%, preferred local branded honey, 20.97% preferred foreign types of honey, and 2.55% didn't answer.
18. Figure 5: Nowadays most of the labels on honey jars and other food products claim that it's 100% natural, but when asking the consumers of honey, 74.88% didn't trust such labels, while only 22.41% trusted them and thought they were true, and 2.71% didn't answer.
19. Regarding which was more natural, imported or local honey, 39.55% thought that imported honey was less natural, while only 25.04% thought that it was more natural, 23.44% thought that imported honey was less natural and contained artificial components, 8.45% thought that it was more natural and didn't contain any artificial components, and 3.51% didn't answer.
20. Figure 6: 35.81% of the Lebanese participants considered that imported honey dominated the Lebanese market is in dominant position in, while 29.9% claimed it's not, 9.25% considered them equally distributed, 22.25% didn't know and 2.79% didn't answer this question.
21. 67.22% of the participants wouldn't buy the honey if it was on promotion while 29.51% would buy it and 3.27% didn't answer.

5. Discussion

Referring to the question whether the Lebanese participants in this study do check honey regularly or they don't relate this question to which extent they are aware of the types of adulteration. Around 50% regularly checked the honey before buying it and the other 50% didn't. The latter group deluded themselves that they recognized the adulterated honey, while only 25% didn't know any adulteration methods, the rest 75% claimed to know one or two methods when, in fact, there are more than ten sorts of honey adulteration and each one requires scientific inspection method.^[32]

With respect to the question whether the participants would still buy honey produced by bees fed on table sugar, the results revealed that 78% of honey consumers wouldn't buy it since they considered it impure. In fact, this is a widespread misunderstanding seeing as the sucrose extraction by bees from the flower and table sugar has the same formula that is glucose and fructose. The bees extract the sucrose from the flower and transform it into honey as they extract the sucrose from the table sugar. When the bee consumes the sugar, it will transform it via the enzyme invertase into honey. But the difference between the floral source and bee sugar fed honey is the proportions of vitamins, minerals and others, which the consumer does not know about. In fact, most beekeepers do feed their bees sugar as for scientifically it enhances and elongates their life span.^[37]

With reference to the size of honey jars the Lebanese purchased the most, 26% of them purchased the 1 kg size jars. This indicates that the Lebanese target is the quantity of honey and less of accessories. The frequent consumption of honey among Lebanese is displayed by the results as for 23% purchase the ½ Kg jars in doubles, the former and latter indicates the appreciation the Lebanese pertain for the honey benefits and uses.

Relating to the question how often the Lebanese consumed honey, 22% of the participants consumed honey daily, which was considered a great proportion of the Lebanese population. This means there are respectable market consumption and a high demand for Honey. A study done by Blom bank in 2016 titled "Lebanon Brief Honey; Lebanon Golden Elixir" stated that the local honey covers only 25% of the demand and approximately 23% of the Lebanese participants in our study consume honey daily and 66 % consume honey frequently or rarely. This justifies the high quantity of honey that Lebanon imports (232 tons/year) in order to cover its demand.^[29]

Referring to the type of honey containers a Lebanese consumer preferred, the majority (77%) purchased a glass honey jar for its multiple uses, including further kitchen uses, less health concerns and risks compared with plastic and other forms of containers. The latter was supported with a study done by University of Nebraska Lincoln under the title "Selection of Food Containers: Glass Jars". It states that glass jars are the most preferable jar packaging as for they protect against moisture, certain temperature exposures, allow product visibility, and are environmental friendly containers^[38].

91% of Lebanese honey consumers were not attracted to low honey prices since the Lebanese prices and the living standards are high due to inflation. This creates a contradiction between the individuals, family income, and the affordability of buying a high priced honey among individuals with medium to low income, which represents approximately

70% of the Lebanese participants. In addition to the previous, only 6% of Lebanese honey consumers were attracted by low priced honey; this indicates a misconception because a good honey could have low prices. So the basis here is to rely on checking the certification of the honey rather than judging it by its price as for high price of honey is not always proportional with high quality. The Lebanese government places 8000 Lebanese pounds on the imported honey despite the high tax rate for the honey. The prices of the imported honey brands sold on the supermarket shelves are low in comparison with the local honey sold directly by the beekeepers. This idea is supported by the feasibility study - Honey collection and Marketing Center in Lebanon [23].

The Lebanese preferred source of honey directly from beekeepers as they represent 40%; the reason behind their choice goes back to a vast confusion that is: beekeepers' honey is far more trustworthy than imported or local branded honey. Although such kind of honey isn't certified or tested in laboratories, still the consumers are ready to pay triple amount of money than the former; the lack of awareness these consumers pertain as for what sources of honey are better creates these misconceptions as they don't recognize that beekeepers scientifically feed their bees sugar to elongate their life span.

In regards to how much the Lebanese consumers trust the honey labels, the majority (75%) had little trust to these

labels. The latter indicates that the Lebanese honey consumers have misconception, as for foreign honey is not allowed to enter the Lebanese market if it's not 100% pure as the label states. The governments do certain inspections that indicate that these labels indicating the purity of honey are credible as they are certified by ISO [39].

As to the query whether the Lebanese participants thought that imported honey dominated the Lebanese market and how did they perceive it, the majority 36% stated their opinion that the imported honey was dominant. This goes back to cheap prices the foreign honey is sold at the supermarket shelves. Some of these participants 25% believed that the foreign honey is more natural than the local branded and beekeepers honey. As a result, the imported honey was noticed among these participants as dominant, contrasting with the majority of the participants that distinguished the imported honey as less natural than the local despite the certifications and reliable labels. [39]

Concerning whether the Lebanese participants buy honey on promotion or not, 68% never bought honey on promotion; this widespread phenomenon is due to the lack of knowledge, since pure honey doesn't have an expiry date and can last up to 3000 years if stored properly. This is learnt when ancient honey jars were discovered in Egyptian tombs and they are still edible. The expiry dates placed on honey labels indicate that the honey will lose some of its nutritious benefits only.

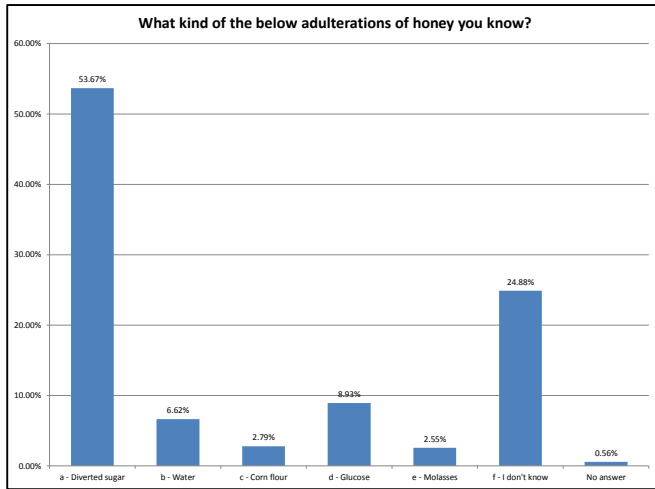


Fig 1

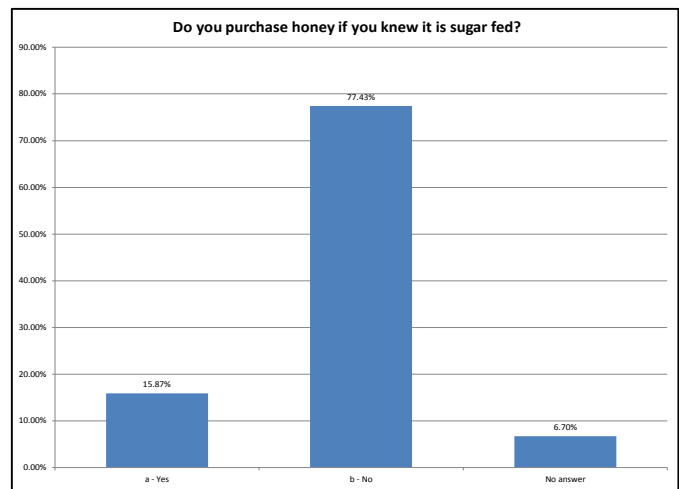


Fig 2

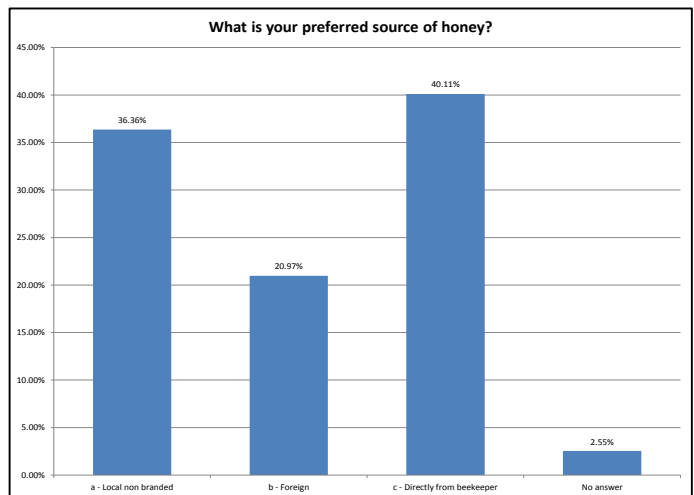
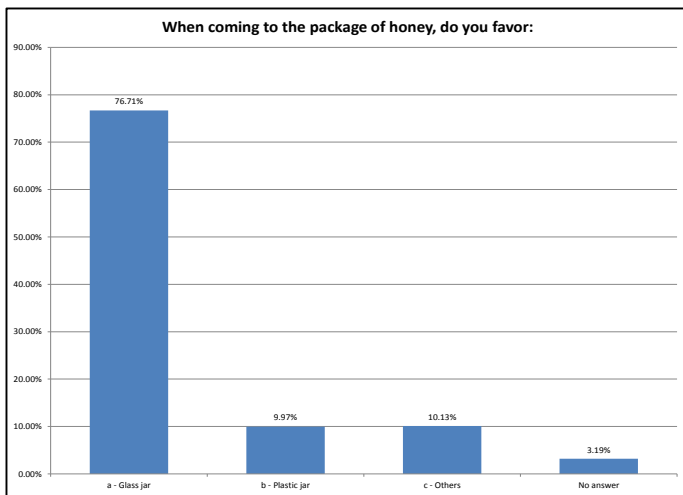


Fig 3

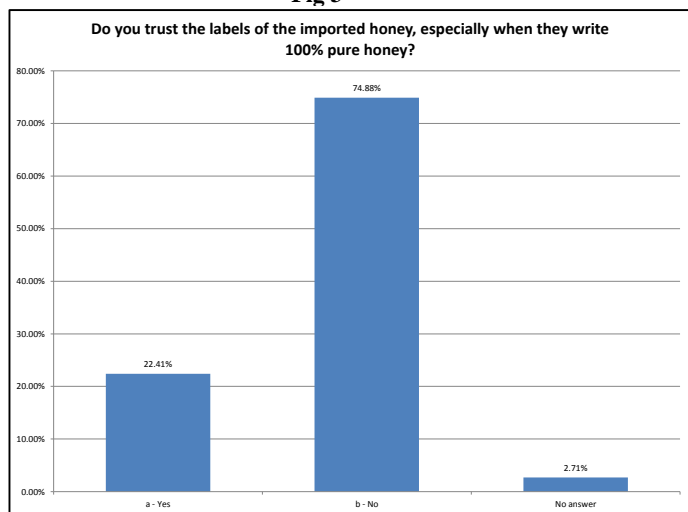


Fig 5

6. Conclusion

In the main, the study designated the behavior of the Lebanese consumers towards honey sold in the supermarkets and by beekeepers. Besides, it investigated the characterization (color, crystallization, pricing, and packaging) and classification of authentic and adulterated honey in the Lebanese market. Moreover, the results revealed that large segment of these consumers perceived the authentic honey as adulterated and vice versa due to the factors mentioned earlier in the paper. These wide spread fallacies in the region were due to the lack in awareness, knowledge, and effective classification of authentic honeys. Blending diverse analytical approaches that complements one another would be more proficient to conduct and investigate precise reasoning behind these misconceptions among consumers, beekeepers and sellers. Further studies are necessary in this field, to take control over honey adulteration by its producers.

7. Recommendation

Lebanese government must include a section about authenticity of honey and its adulteration methods in schools educational curriculum. Lebanese T.V. stations must contain an awareness part about honey in the news or other programs. In addition to developing awareness campaigns and workshops about this matter, the Lebanese government can also send an anonymous customer to the local beehives to detect any kind of adulteration performed by the latter using special techniques and improved labs for such purposes.

8. Acknowledgments

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9. References

Fig 4

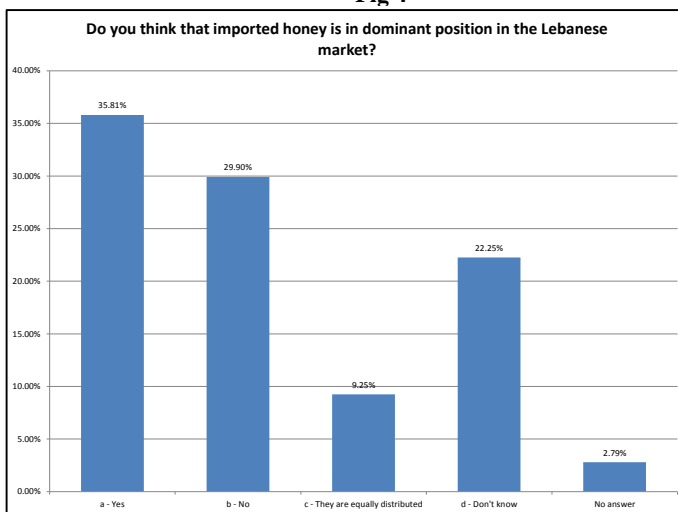


Fig 6

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