INTERNATIONAL NUT & DRIED FRUIT COUNCIL

Hot Topics in the Nut & Dried Fruit Industry

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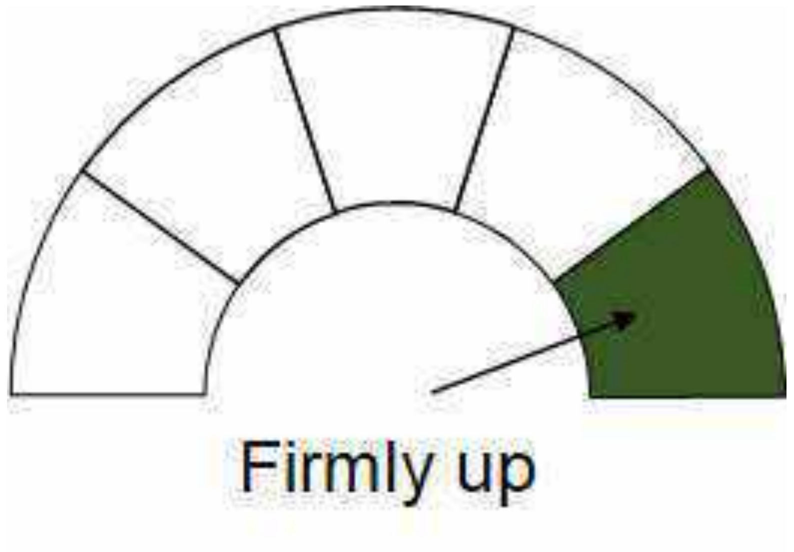
Nut & Dried Fruit Industry Trends

RETAIL MAIN SHIFTS IN **SNACKS DEMAND** OBSERVED LAST YEAR IN RETAIL AND ONLINE TRADE

Growing Markets



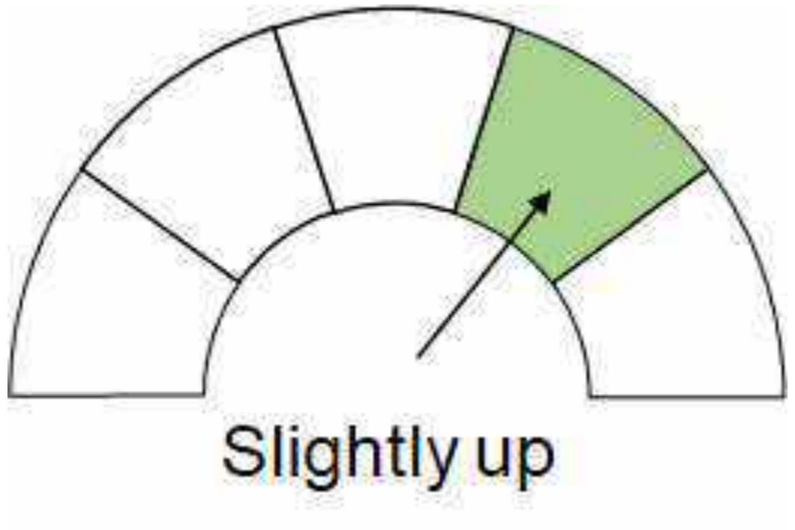
- Snack demand keeps growing.
- Increased demand of flavored nuts in higher-purchasing power markets.
- Expansion of discount stores and increased demand for bulk nuts in lower-purchasing power markets.

Mature Markets

- Slightly sluggish snack demand.
- Shift towards cheaper alternatives (*e.g.* pulse and potato snacks).
- More point of sale items and small bags.
- Shift towards cheaper items in trail mixes for lower retail prices.

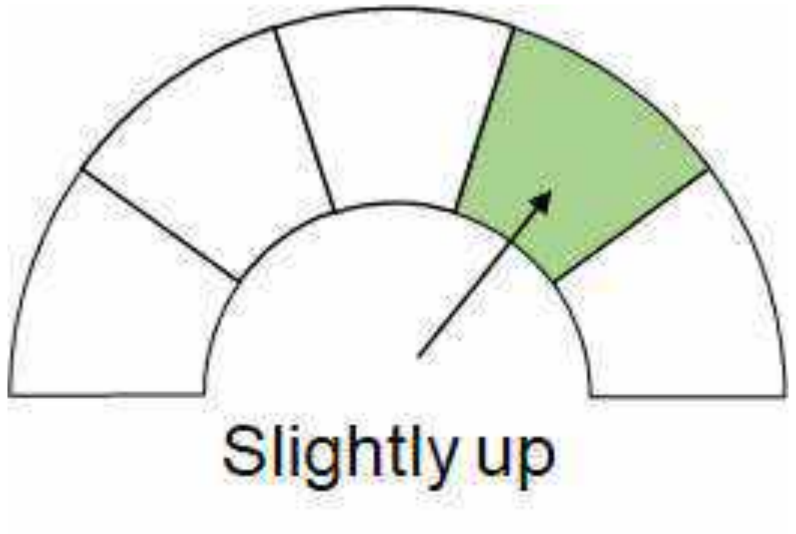
RETAIL MAIN SHIFTS IN **FUNCTIONAL FOODS DEMAND** OBSERVED LAST YEAR IN RETAIL AND ONLINE TRADE

Growing Markets



- Functional foods demand keeps growing.
- Still a niche market, but steadily growing.
- Continued innovation for this kind of products.

Mature Markets



- Slight but steady growth of functional foods demand due to consumers' awareness of their health benefits.

RETAIL MAIN SHIFTS IN **PACK SIZES** OBSERVED LAST YEAR IN RETAIL AND ONLINE TRADE

Growing Markets

Luxury packs in smaller sizes in higher-income sectors and large packs in lower-income sectors.

- Added-value nut gift boxes in small sizes and luxury packaging.
- Nut in bulk or large packs in lower-income markets.

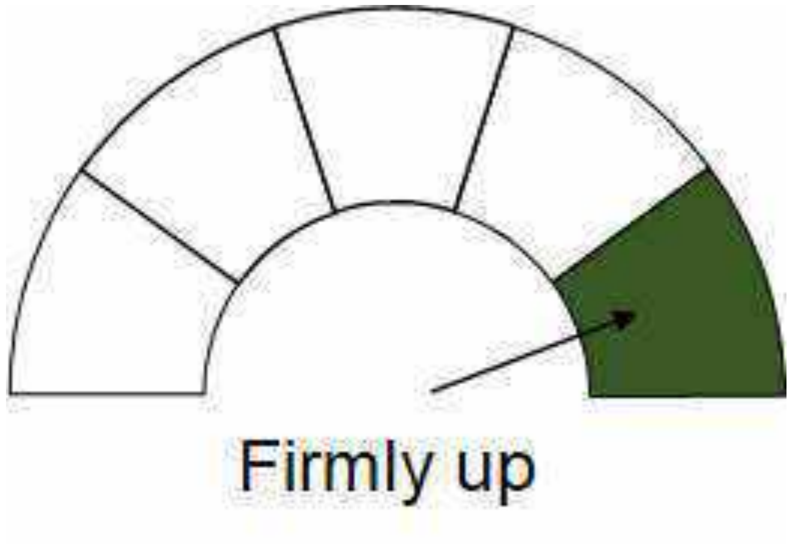
Mature Markets

Packs were either reduced or gone extra large for lower price point in an inflationary environment.

- Reduced pack sizes or less net content per pack to deal with inflation.
- XXL packs or big club packs for promotional pricing.
- Innovation in packaging material to reduce waste.

RETAIL MAIN SHIFTS IN INNOVATION OBSERVED LAST YEAR IN RETAIL AND ONLINE TRADE

Growing Markets



Innovation applied to:

- Flavored products
- Functional products
- Nut drinks and oils
- Packaging

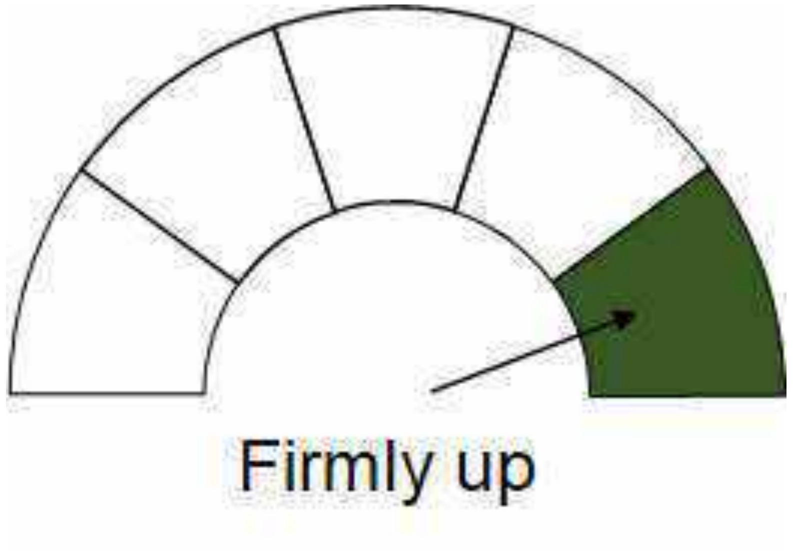
Mature Markets

Innovation applied to:

- Flavored nuts
- Nut drinks and flours
- Nut and dried fruit bakery products
- Packaging

MANUFACTURING INDUSTRY MAIN SHIFTS IN **NUT AND DRIED FRUIT DEMAND** OBSERVED LAST YEAR IN THE MANUFACTURING INDUSTRY

Growing Markets



Demand in growing markets keeps growing, particularly for:

- Flavored nuts
- Nut drinks, bars and muesli
- Online influential products
- Private brands
- Cost-effective and bulk products

Mature Markets

Slightly sluggish demand (down by 5-10%) mainly due to:

- Large carry-over
- Global economic climate
- Inflationary pressure
- Shift towards cheaper alternatives

MANUFACTURING INDUSTRY MAIN SHIFTS IN **ADDED-VALUE PRODUCTS DEMAND** OBSERVED LAST YEAR IN THE MANUFACTURING INDUSTRY

Growing Markets

- Increased demand of added-value product such as:
  - Flavored nuts
  - Gift boxes

Mature Markets

- Shift towards added-value products, such as:
  - Plant-based ingredients
  - Ready to eat products

Product Categories with increased demand:

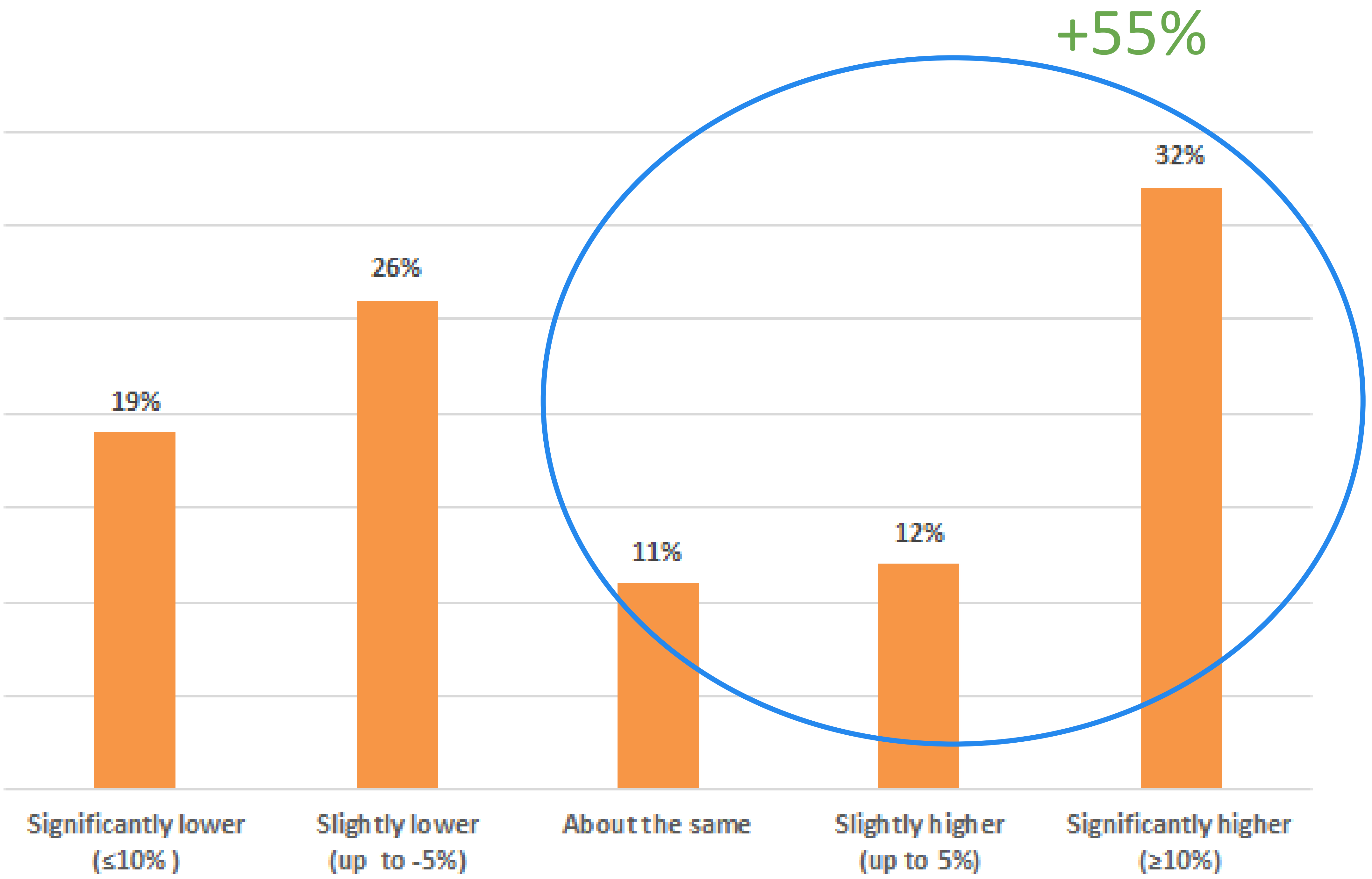
RETAIL

- Flavored nuts
- Nut drinks
- Nut spreads
- Nut mixes
- Healthy snacking products

MANUFACTURING INDUSTRY

- Flavored nuts
- Blanched kernels
- Ingredients
- Low-cost trail mixes
- Private label products

2023 DEMAND/CONSUMPTION VS. 2022? INDUSTRY'S EXPECTATIONS FOR **2023 DEMAND**



- +55% expects this year's consumption to be equal or above last year's
- 32% foresees a significant increase, at least 10% up from 2022, **heavily driven by he growing markets' consumption**.

CHALLENGES INDUSTRY'S **MAIN CHALLENGES ACROSS THE VALUE CHAIN**

Top 1	Inflationary environment
Top 2	Inputs rising costs
Top 3	Drought, extreme high temperatures and quality
Top 4	Sluggish demand
Top 5	Low prices (growers)
Top 6	Unfavorable trade and regulatory environment
Top 7	Logistical issues

CHALLENGES COSTS RANKING, 2022 VS. 2023

2022	
Ranking	**Cost Type**
Top 1	Labour
Top 2	Energy/Fuel
Top 3	Raw materials
Top 4	Packaging
Top 5	Freight Rates/Transport
Top 6	Fertilizers, pesticides…
Top 7	Water

2023	
Ranking	**Cost Type**
Top 1	Labour (mature markets)
Top 2	Raw materials
Top 3	Energy
Top 4	Packaging
Top 5	Fertilizers, pesticides…
Top 6	Freight Rates/Transport
Top 7	Water

CHALLENGES MOST RELEVANT **SUSTAINABILITY CHALLENGES** THE INDUSTRY IS CURRENTLY FACING

Top 1	Supply chain traceability and source transparency
Top 2	Water management
Top 3	Gender diversity, equity and inclusion
Top 4	Packaging reduction and labeling
Top 5	Nature-positive approach and regenerative agriculture
Top 6	Net zero and scope 3 emissions
Top 7	Circular economy principles

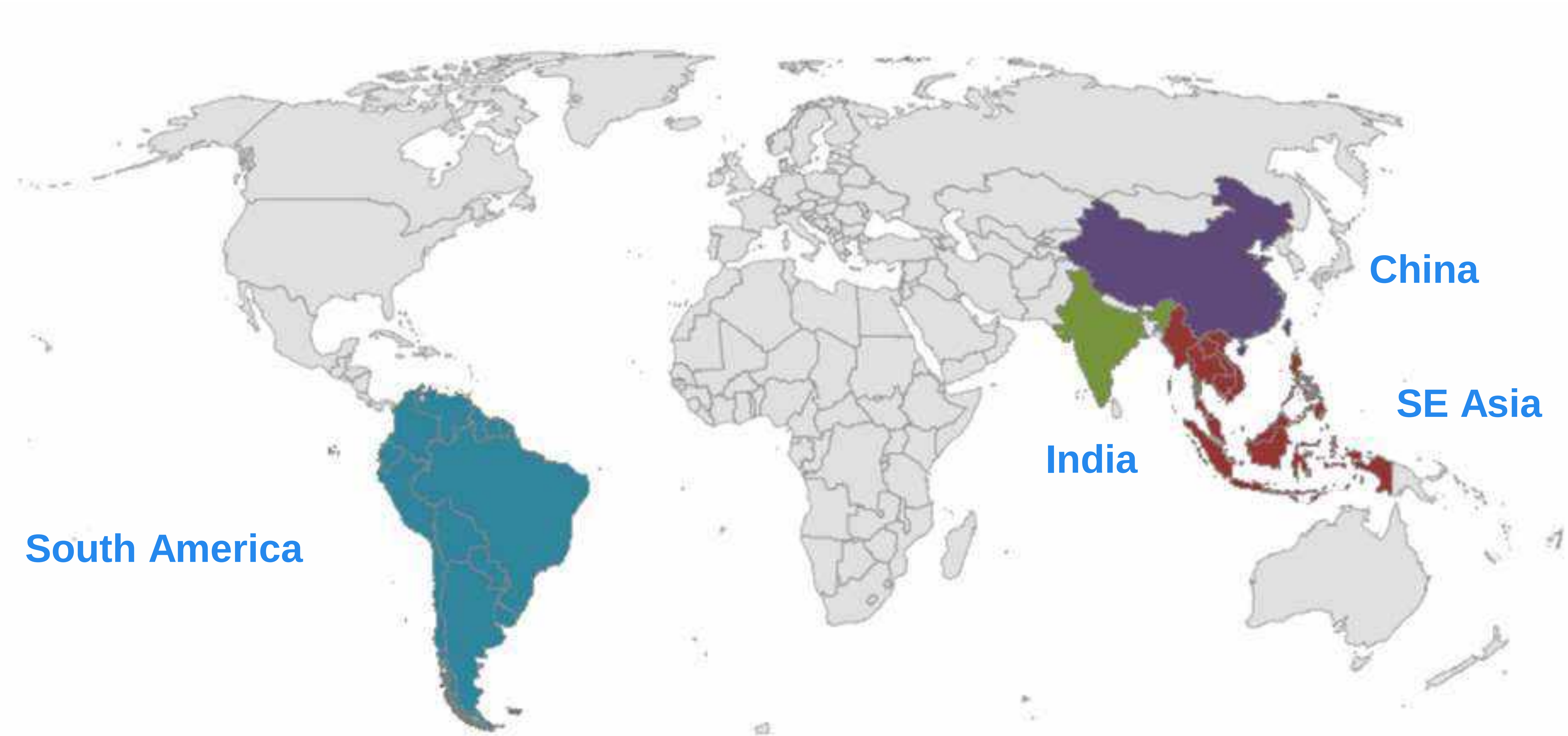
HOW TO DRIVE DEMAND? MOST RELEVANT **ACTIONS** IMPLEMENTED BY THE INDUSTRY TO DRIVE DEMAND

- Increasing promotions and marketing
- Strengthening awareness about health attributes of nuts and dried fruits
- Stimulating new product development and launches
- Advertising in social media
- Increasing ingredient use through nut drinks
- Promoting snacking, topping and baking use among consumers

HOW TO DRIVE DEMAND? THROUGH **PRODUCT INNOVATION AND LAUNCHES**

- Flavored and coated nuts, both in-shell and shelled (especially in the Asian market)
- Nut-based drinks and spreads
- Nut oils (*e.g.* pistachio, walnut and other nut oils) for food and cosmetic industry
- Nut flours and bakery products with nuts and dried fruits
- Biodegradable packaging

WHERE TO GROW DEMAND? MARKETS WITH **HIGH DEMAND POTENTIAL**



MARKETS WITH HIGH DEMAND POTENTIAL EXPECTATIONS FOR **TREE NUT AND DRIED FRUIT CONSUMPTION OVER THE NEXT TEN YEARS**

1,428.6 M

India: An already growing market, with bright perspectives

- Expected annual growth: around 7% per year until 2033
- As economy is anticipated to growth about 7-8% annually, middle income groups, with higher purchasing power, are also expanding.
- The largest population in the world, with a majority under 28 year old.
- General awareness of health benefits of consuming nuts and dried fruits (well covered by Indian media).
- Products with highest demand growth potential: almonds, cashews and walnuts.
- How to keep driving this demand? You'll see!

MARKETS WITH HIGH DEMAND POTENTIAL EXPECTATIONS FOR **TREE NUT AND DRIED FRUIT CONSUMPTION OVER THE NEXT TEN YEARS**

1,425.7 M

China: A traditional market for walnuts and pine nuts with a lot of room for expansion

- Expected annual growth: around 5% per year until 2033, depending on a decrease of import duties.
- Large population
- Products with highest demand growth potential: pistachios, cashews and pine nuts.
- How to drive this demand? By strengthening **promotion**, especially in nuts that are not traditional in China, such as macadamias, pecans and Brazil nuts. **INC currently present!**

MARKETS WITH HIGH DEMAND POTENTIAL EXPECTATIONS FOR TREE NUT AND DRIED FRUIT CONSUMPTION OVER THE NEXT TEN YEARS

687 M

SE Asia: Another market with growth potential

- Huge potential market for tree nuts, depending on continued growth in GDP and political stability
- Population 687 million people and 740 M by 2033.
- Products with highest demand growth potential: pistachios, almonds, macadamias, pecans and hazelnuts.
- How to drive this demand? A strong **promotion** is required, many people in this region only know cashews. **Key market for INC dissemination campaigns!**

MARKETS WITH HIGH DEMAND POTENTIAL EXPECTATIONS FOR **TREE NUT AND DRIED FRUIT CONSUMPTION OVER THE NEXT TEN YEARS**

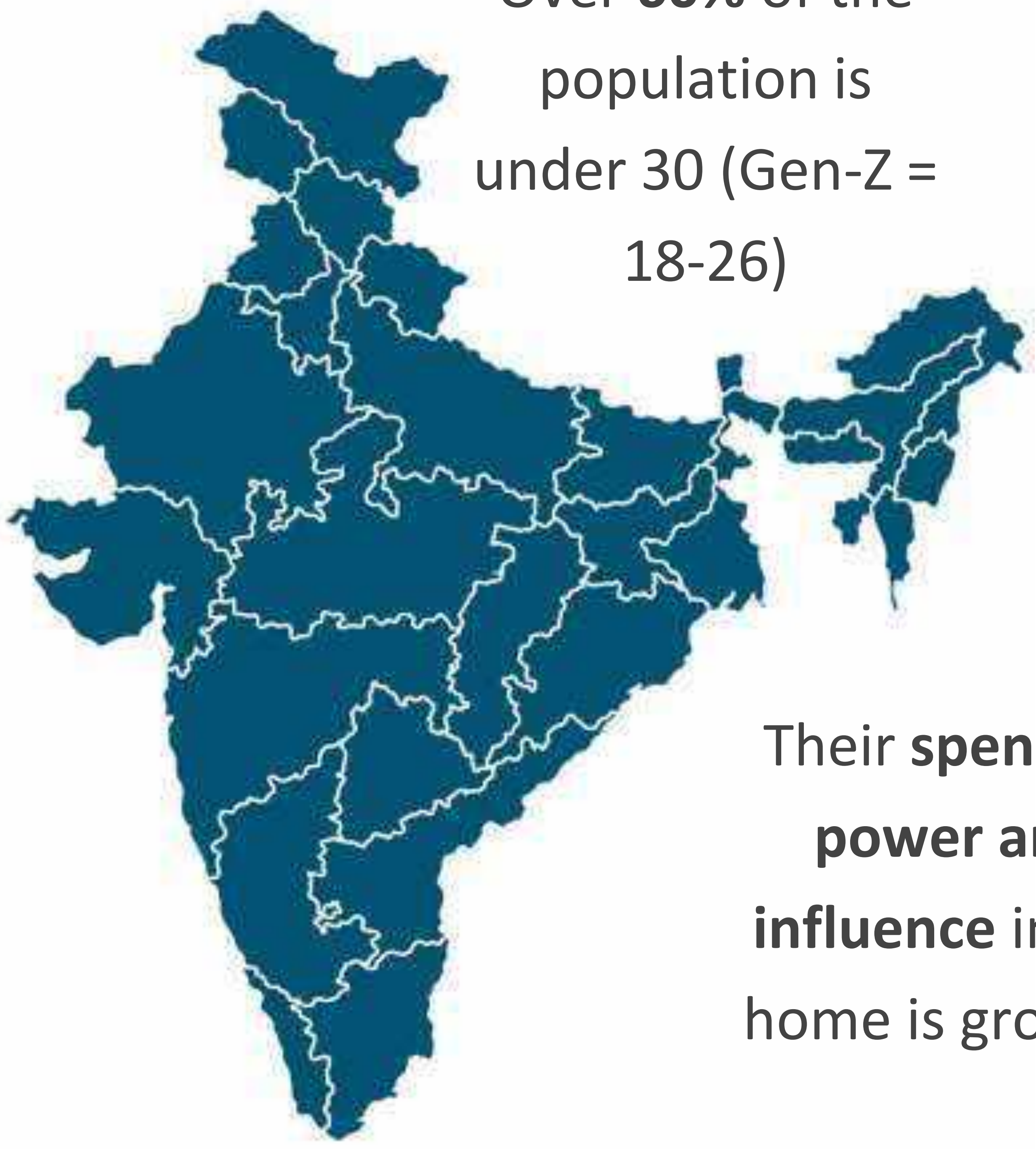
South America: Traditionally a exporting market with room for for domestic consumption growth

- Huge potential market for tree nuts, depending on political stability
- Population 440 million people and about 500 M by 2033.
- Products with highest demand growth potential: almonds, hazelnuts, cashews and pistachios.
- How to drive this demand? Increasing awareness of health benefits of consuming nuts and dried fruits and promoting new usages (e.g. nut drinks, spreads, toppings, etc.) and consumption all year-round. **INC will be there soon!**

Where to Next?

GEN Z IN INDIA AN OVERVIEW

INC



Over **60%** of the population is under 30 (Gen-Z = 18-26)

Their **spending power and influence** in the home is growing

TOTAL POPULATION

1,428.6.6M

GEN Z POPULATION

4.7M

LANGUAGE

HINDI, ENGLISH

GEN Z LANGUAGE

HINGLISH

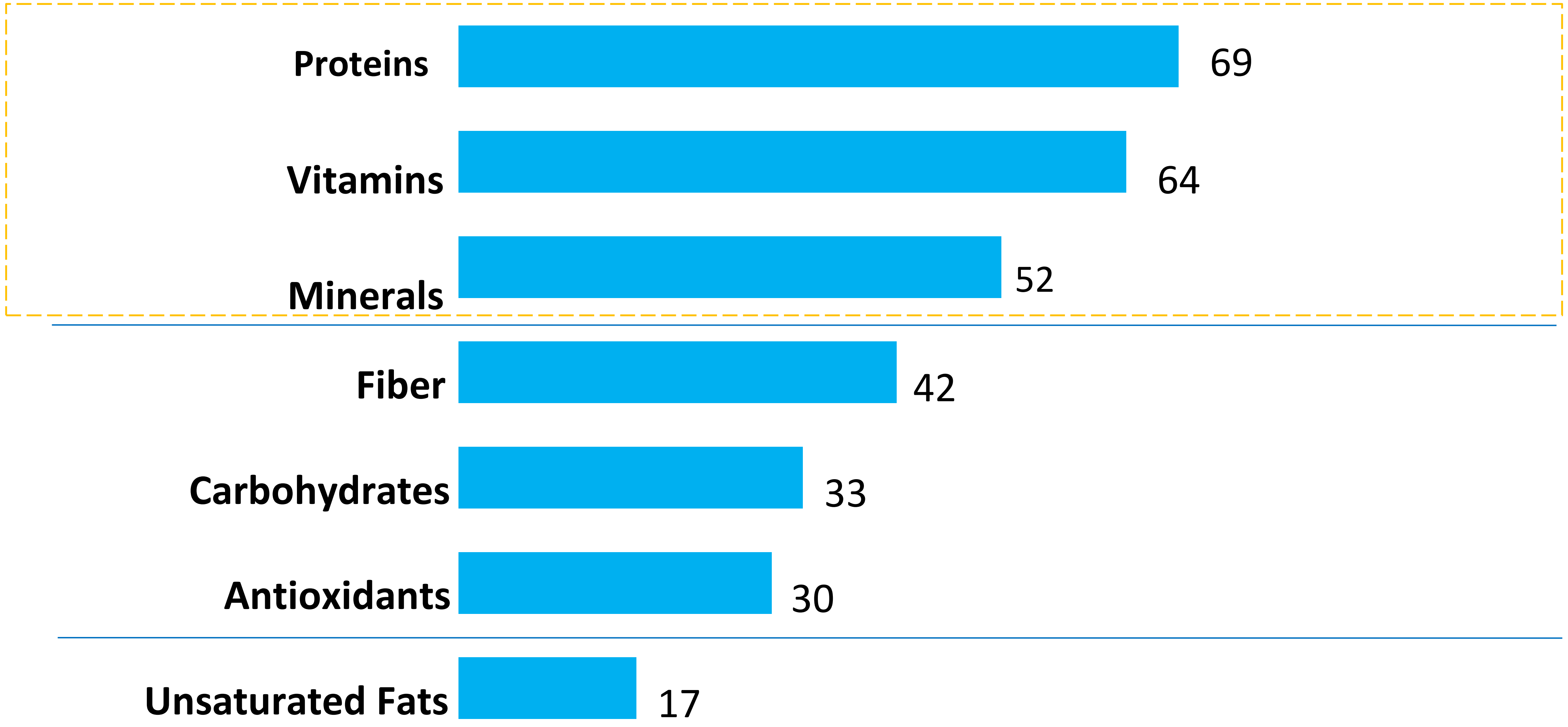
Gen Z in India spend on average 8hrs per day online

Gen Z Research in India

Food Nutrients & Perceptions of Nuts & Dried Fruits

IMPORTANCE OF NUTRIENTS AMONG GEN Z IN INDIA

Proteins and **vitamins** are essential nutrients for most respondents, followed by minerals. Unsaturated fats, on the other hand, seem to be less relevant.



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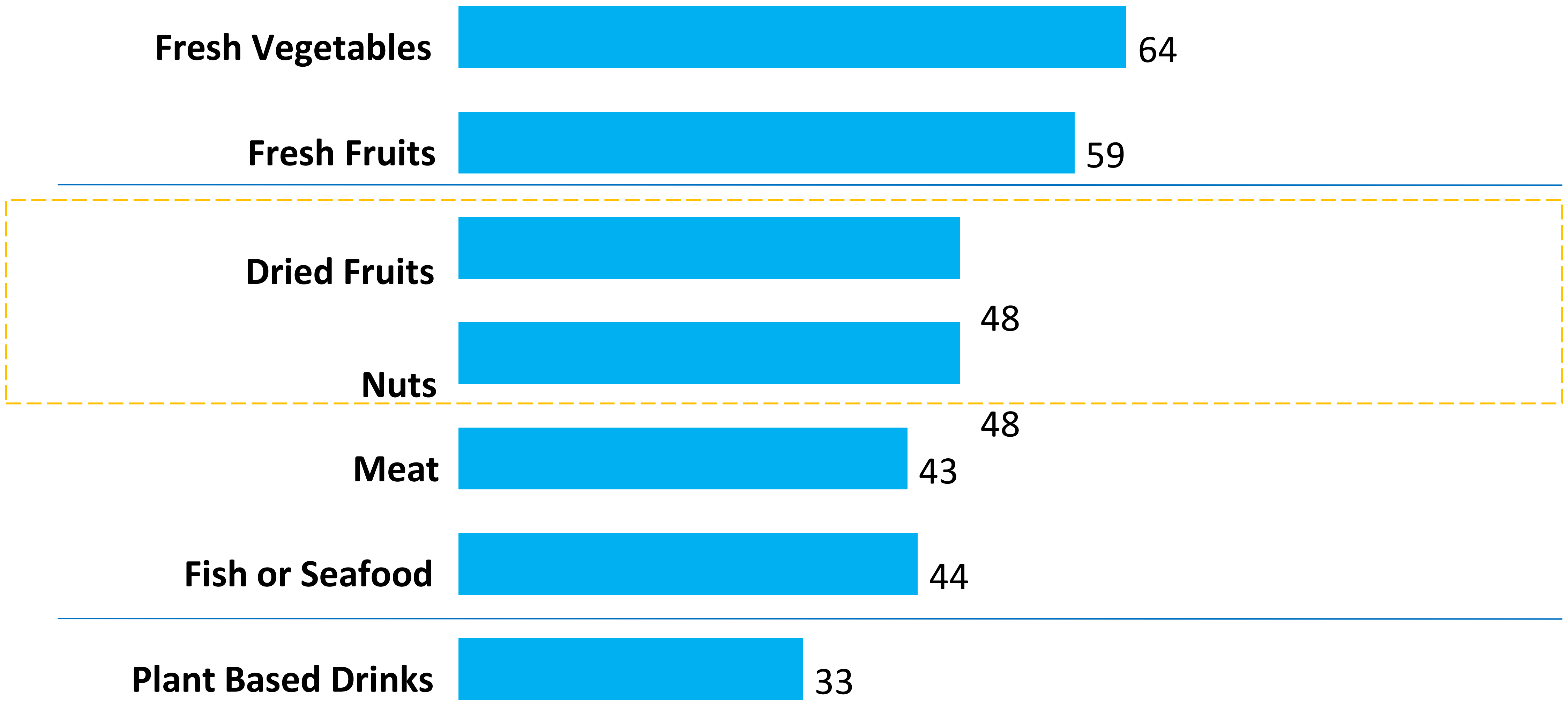
Q1. What importance do you give to the consumption of the following as part of your diet? Use a scale 1 to 10, from “1 - not important at all” to “10=a lot of importance”
DATA IN %
SAMPLE SIZE: N=800

FOODS ASSOCIATED WITH "RICH IN PROTEINS" AMONG GEN Z IN INDIA

Fresh Vegetables and Fruits are highly associated with proteins. **Dried fruits** and **nuts** are perceived as rich in proteins, more than even meat and fish or seafood.



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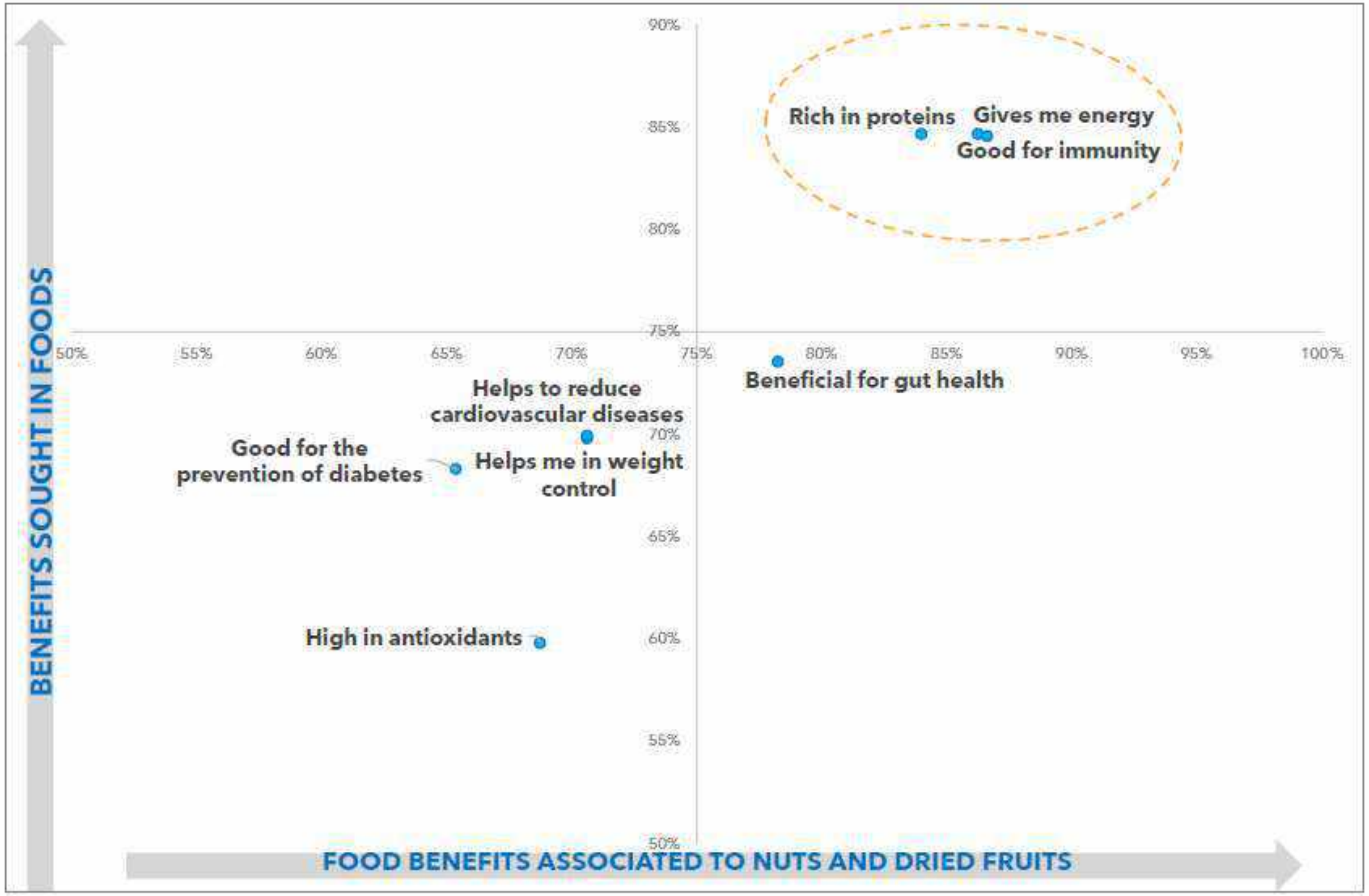
Q2. How rich in proteins are the following types of food? Use a scale 1 to 10, from "1- not at all" to "10=a lot"
DATA IN %
SAMPLE SIZE: N=800

FOOD BENEFITS AND THEIR ASSOCIATION TO NUTS AND DRIED FRUITS

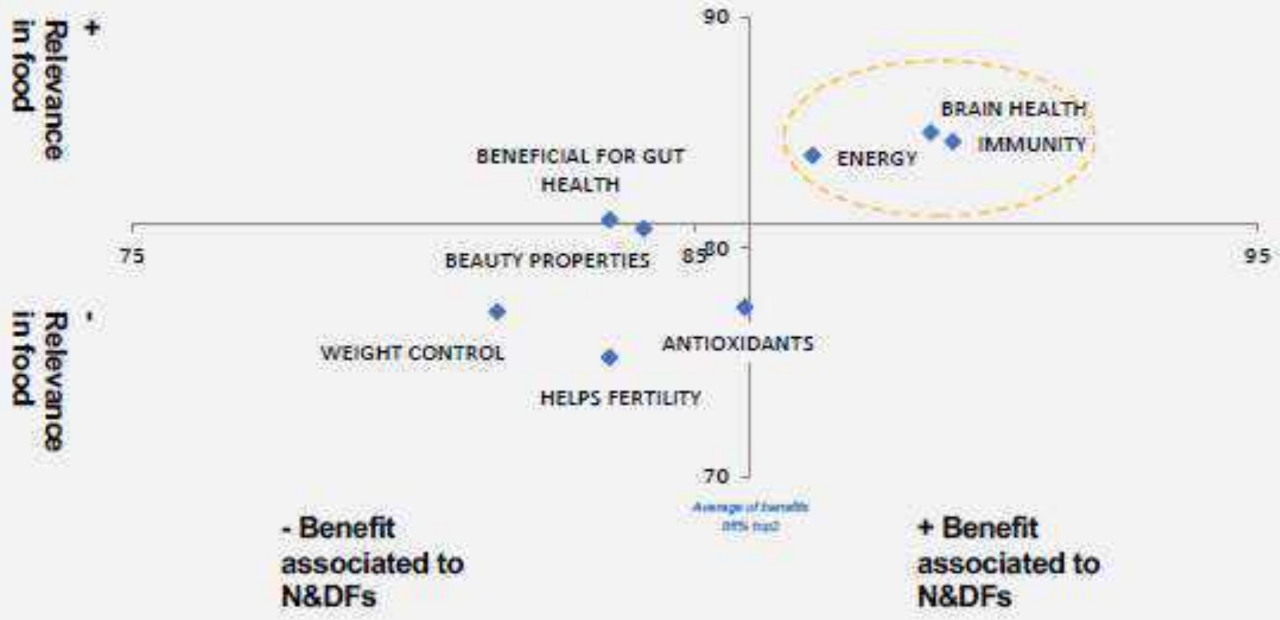
AMONG GEN Z IN INDIA

- Interestingly, respondents already perceive that nuts and dried fruits are delivering the main three benefits that they seek in foods.
- Hence, it can be concluded that NDFs are perceived as highly beneficial to health



Proteins result to be another important food benefit for Gen-Z that are also highly associated o nuts and dried fruits.

These are added to the 2022 list of relevant food benefits associated to this products: immunity, energy and brain health.



2022 Results

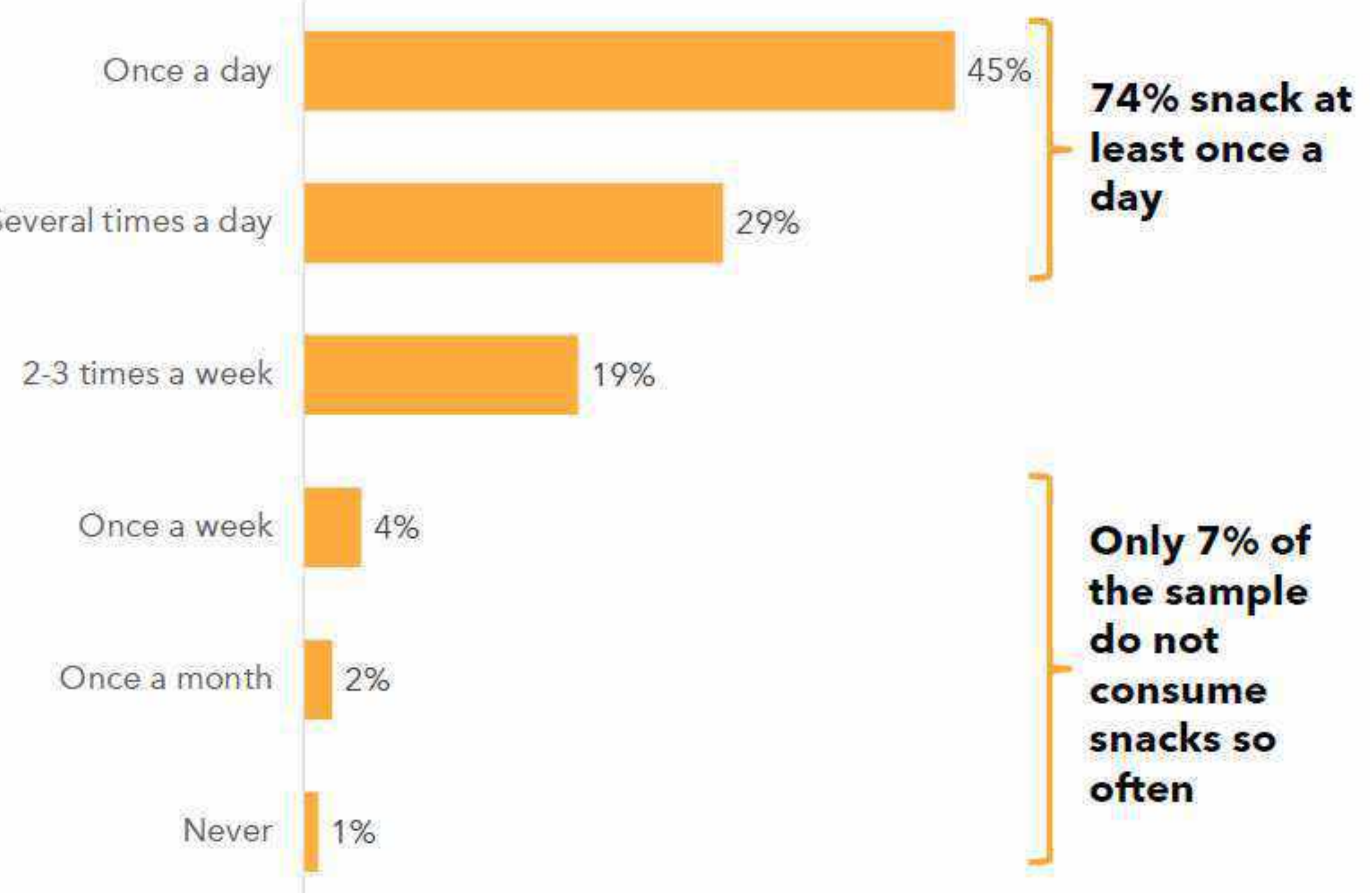
Q3. How relevant for you are the following benefits/attributes in relation to FOOD? Answers from "Extremely relevant" to "Not relevant at all", 5-point scale
Q4. How much do you agree that the following benefits apply to NUTS and DRIED FRUITS? Answers from "Applies a lot" to "Does not apply at all", 5-point scale
DATA IN %
SAMPLE SIZE: N=800

Snacking Culture & Nuts & Dried Fruit Presence

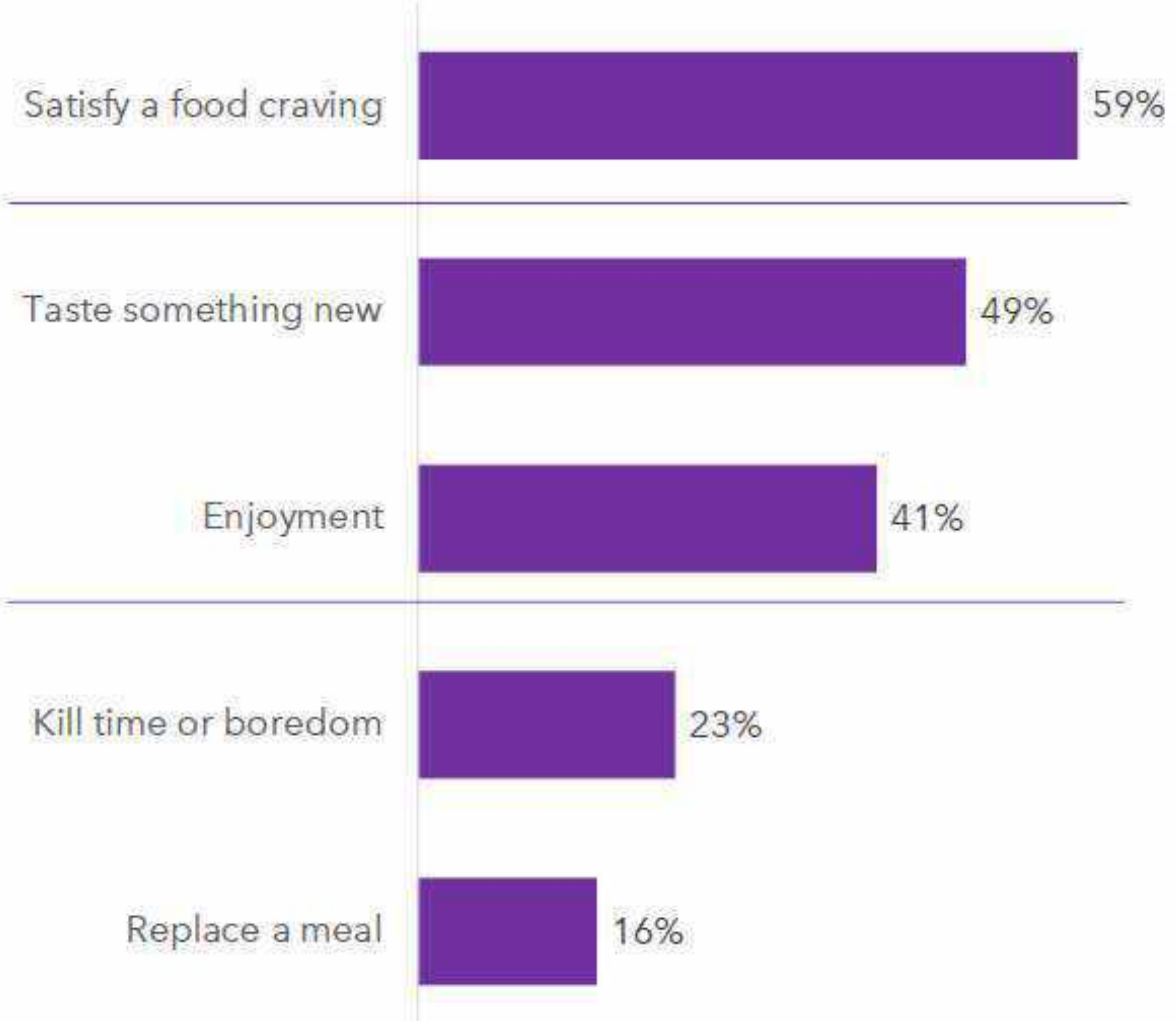
FREQUENCY AND REASONS FOR SNACKING AMONG GEN Z IN INDIA

Snacking is an opportunity due to the high incidence among Gen Z: three out of four respondents eat a snack at least once a day. **Most of them eat a snack to satisfy a food craving.** As secondary reasons, they snack to taste something new and out of enjoyment.

How often do they snack?



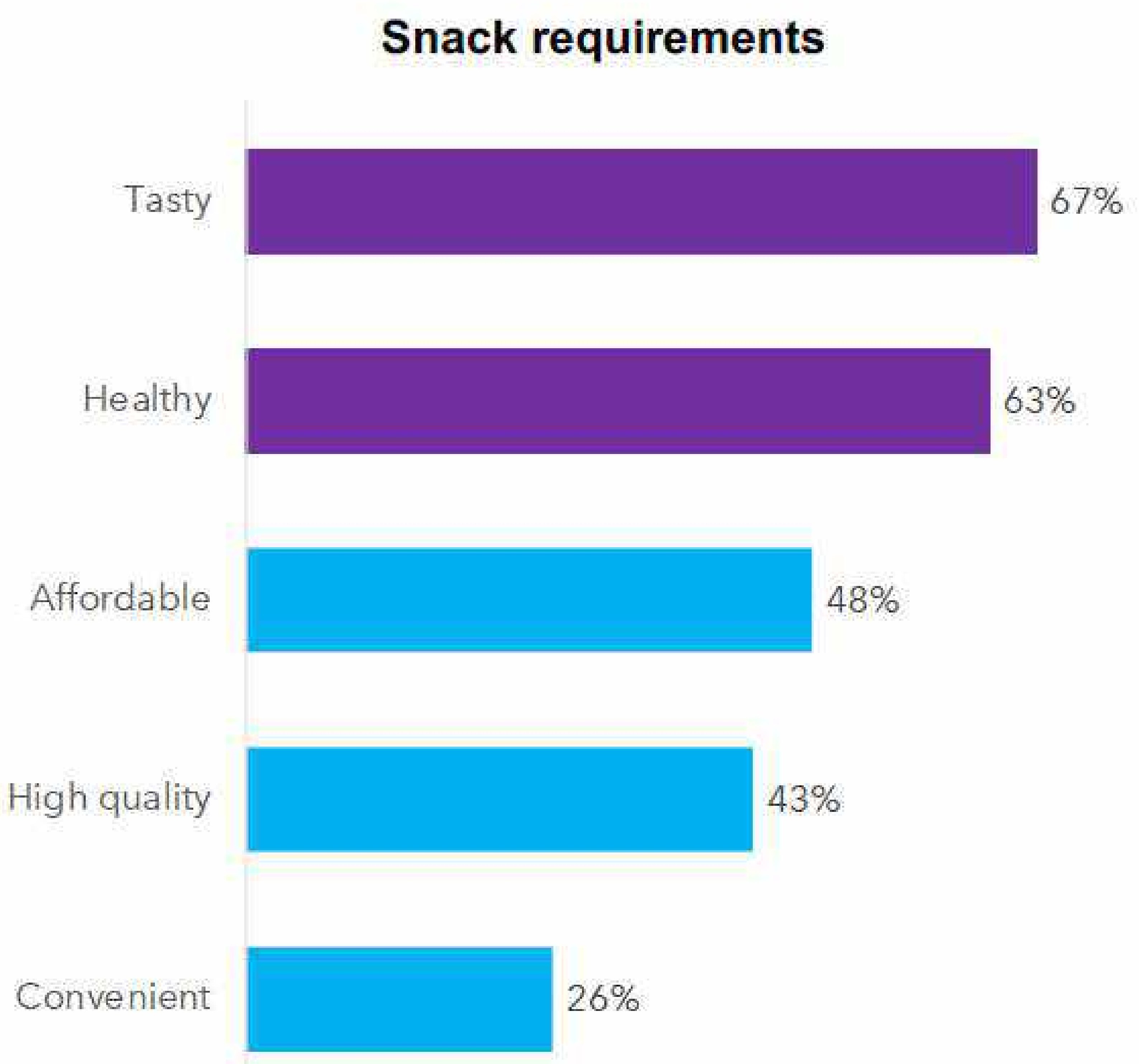
Why do they snack?



Q5. How often do you snack? / Q6. Why do you snack?
SAMPLE SIZE: N=800

SNACK REQUIREMENTS AMONG GEN Z IN INDIA

It seems that this generation is looking for two great requirements -either one or the other depending on the moment or both at the same time: that **snacks have to be tasty and/or healthy**.



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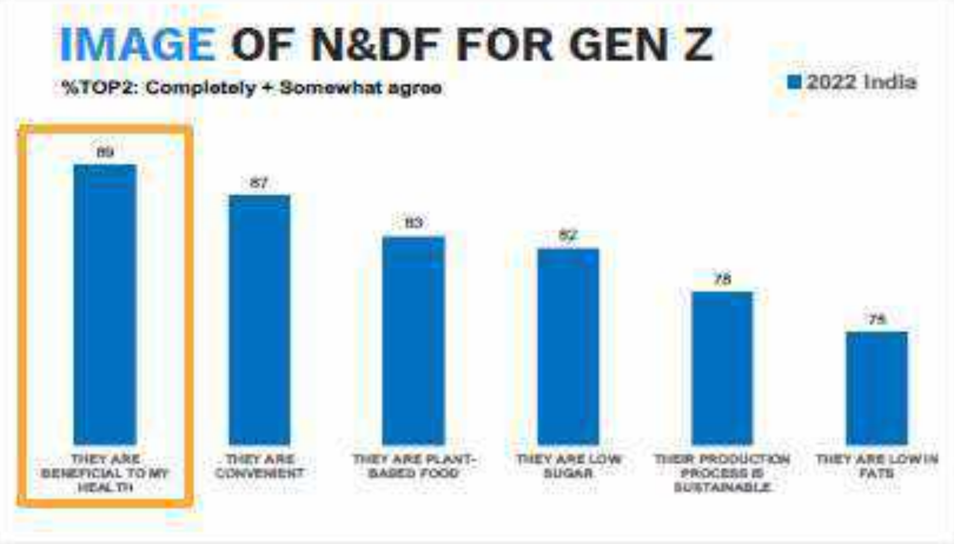
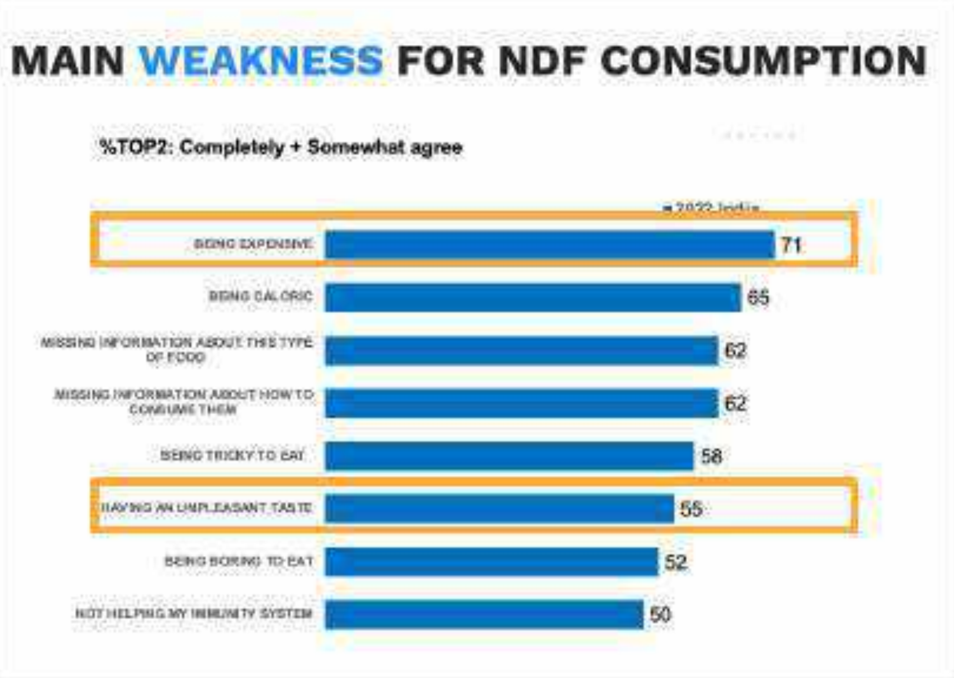
N&DF are already strongly associated with the second requirement for a snack: according to 2022 survey, 89% associated them with health benefits.

Nevertheless, **N&DF are also associated to barriers to its consumption as a snack:** 71% consider them as expensive (while 48% look for non expensive snacks) and 55% associate them as having an unpleasant taste (while being tasty is the main driver to choose a snack among others).

As N&DF covers a wide range of foods, **INC should explore to find out the difference among the varieties.**





2022 Results

INSPIRATION FOR SNACKS & PLACE OF CONSUMPTION

- The role of **Gen Z' social environment is key as source of inspiration**, while the social channel (reviews, social media...) remains in second place at the reference level when deciding what to snack.
- Main place of consumption is at home but on the go is on the rise.

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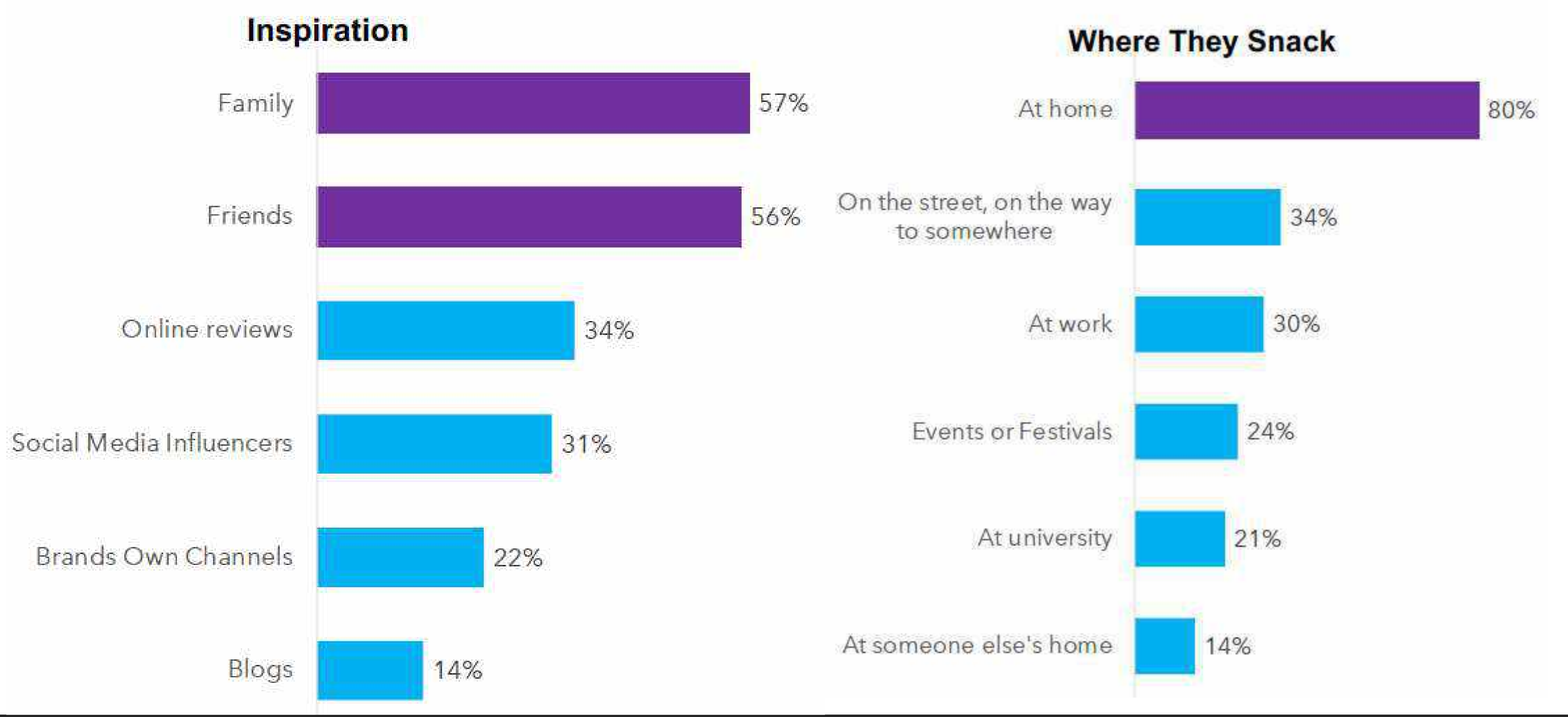

Q8. Where / Who do you get inspiration from in regard to what you snack? Q9. Where do you mainly snack?
SAMPLE SIZE: N=800

SNACKING: differences between those who snack frequently VS those who don't

As we said, only 7% of the sample do not consume snacks so often (once a week or less often):

- They show **less interest to satisfy food cravings** and there's a **lower tendency to use snacks to pass the time**.
- This group is **less interested in healthy options and is less concerned about quality**.
- **Higher tendency to consume snacks on the street**, rather than at home when compared to the groups that snack regularly.

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REASONS FOR SNACKING

	Total	Snack regularly	Does not regularly
Base	796	748	48*
Satisfy a food craving	59%	60%	48% ⇩
Taste something new	49%	49%	48%
Enjoyment	41%	41%	42%
Kill time or boredom	23%	24%	13% ⇩
Replace a meal	16%	17%	10%

⇧ ⇩ Highlights important differences between columns

REQUIREMENTS FOR SNACKS

	Total	Snack regularly	Does not regularly
Base	796	748	48*
Tasty	67%	67%	69%
Healthy	63%	64%	44% ⇩
Affordable	48%	48%	42%
High quality	43%	44%	17% ⇩
Convenience	26%	27%	15%

PLACE OF CONSUMPTION

	Total	Snack regularly	Does not regularly
Base	796	748	48*
At home	80%	82%	50%
On the street, on the way to somewhere	34%	33%	42%
At work	30%	31%	15%
Events or Festivals	24%	24%	25%
At university	21%	21%	15%
At someone else's home	14%	14%	19%

SNACKING: DIFFERENCES BY REGION

REQUIREMENTS FOR SNACKS

North	South	East	West	Central*
Tasty 69% Healthy 64%	Tasty 70% Healthy 65%	**Healthy 63%** **Tasty 62%**	Tasty 65% Healthy 64% **Affordable 51%**	Tasty 68% Healthy 52%

INSPIRATION FOR SNACKS

North	South	East	West	Central*
Friends 57% Family 56% Online reviews 36%	**Family 63%** Friends 58% Social Media Influencers 32%	Family 57% Friends 52% **Online reviews 39%**	Friends 57% **Family 46%** **Social Media Influencers 38%**	Family 58% Friends 58% Online reviews 35%

PLACE OF CONSUMPTION

North	South	East	West	Central*
At home 80%	**At home 88%**	At home 78%	At home 69% **On-the-go 40%**	At home 77%

In general, there are no differences among regions in what Gen Z searches when snacking in 1st place, where do they mainly get the inspiration and main place of consumption. Nevertheless, there are some particularities:

South - Family has more presence as source of inspiration when deciding what to snack, and related to that, consumption at home has a higher presence.

East - health has more relevance –even vs being tastyand online reviews have more weight when deciding what to snack.

West - being affordable is more relevant, and social media influencers have more weight than the average (while family's role has less). Also, a higher incidence of on-the-go consumption.

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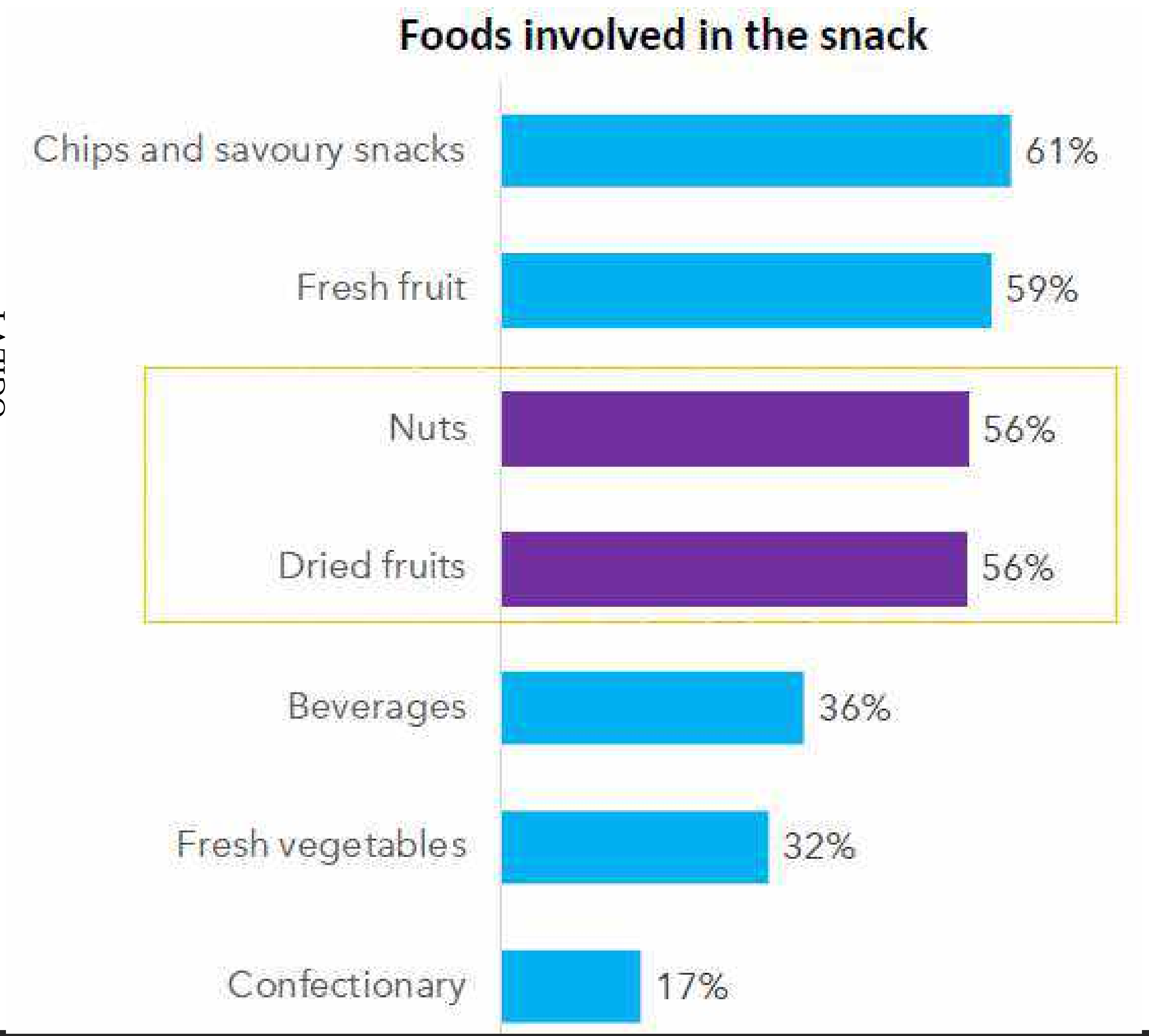
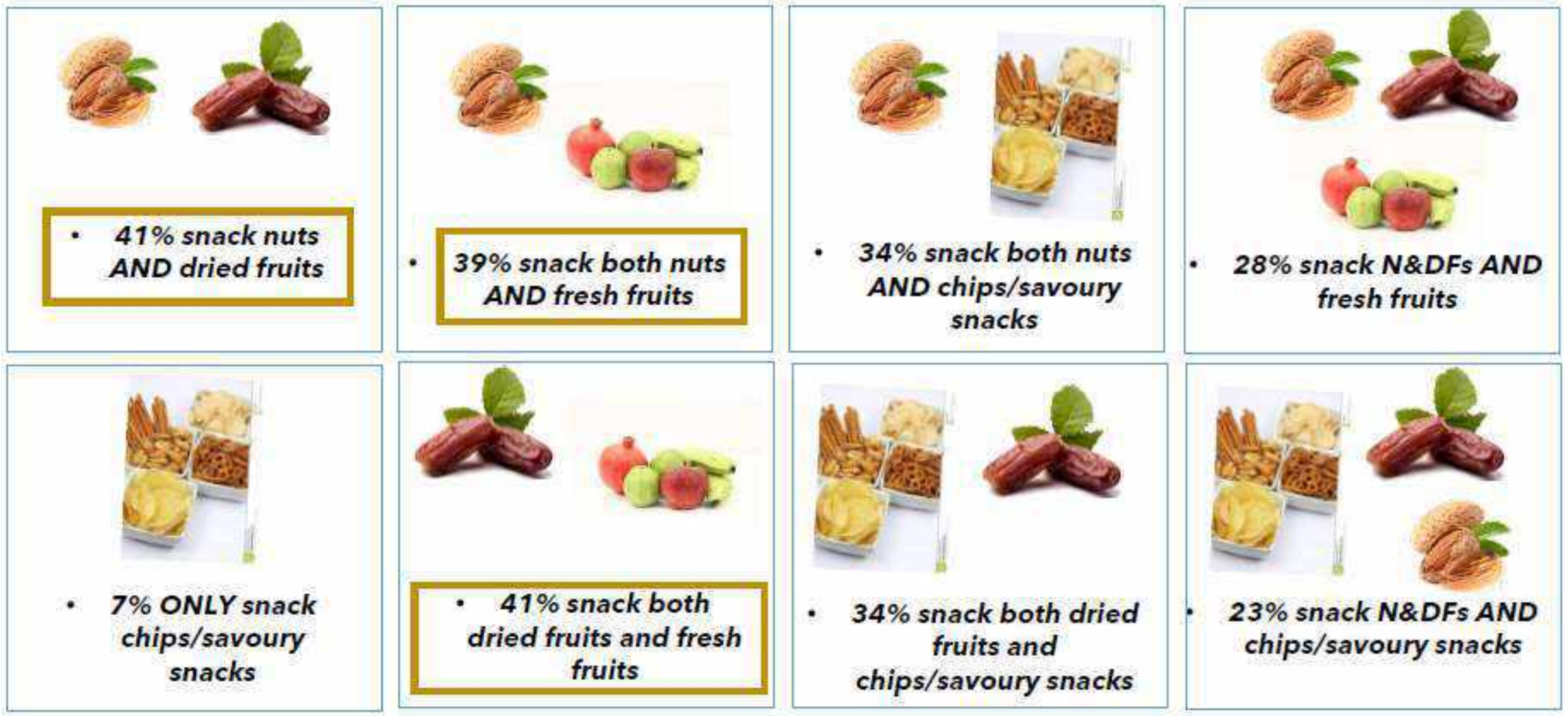
Q7. What requirements should your snack have? Q8. Where / Who do you get inspiration from in regard to what you snack? Q9. Where do you mainly snack?
SAMPLE SIZE: N=800
**Small sample size (lmore than 30 responses but less than 75)*

WHAT THEY SNACK AMONG GEN Z IN INDIA

- Most respondents snacks either **chips/savoury snacks or fresh fruit** (main threats to the N&DFs category). **To a slightly lower degree, nuts and dried fruits** are also involved in snacking.
- **But Gen-Z in India snacks 3 foods on average, which means that there's an opportunity to grow inside this moment of consumption and, also is an opportunity for cross-selling or communicate combinations:**

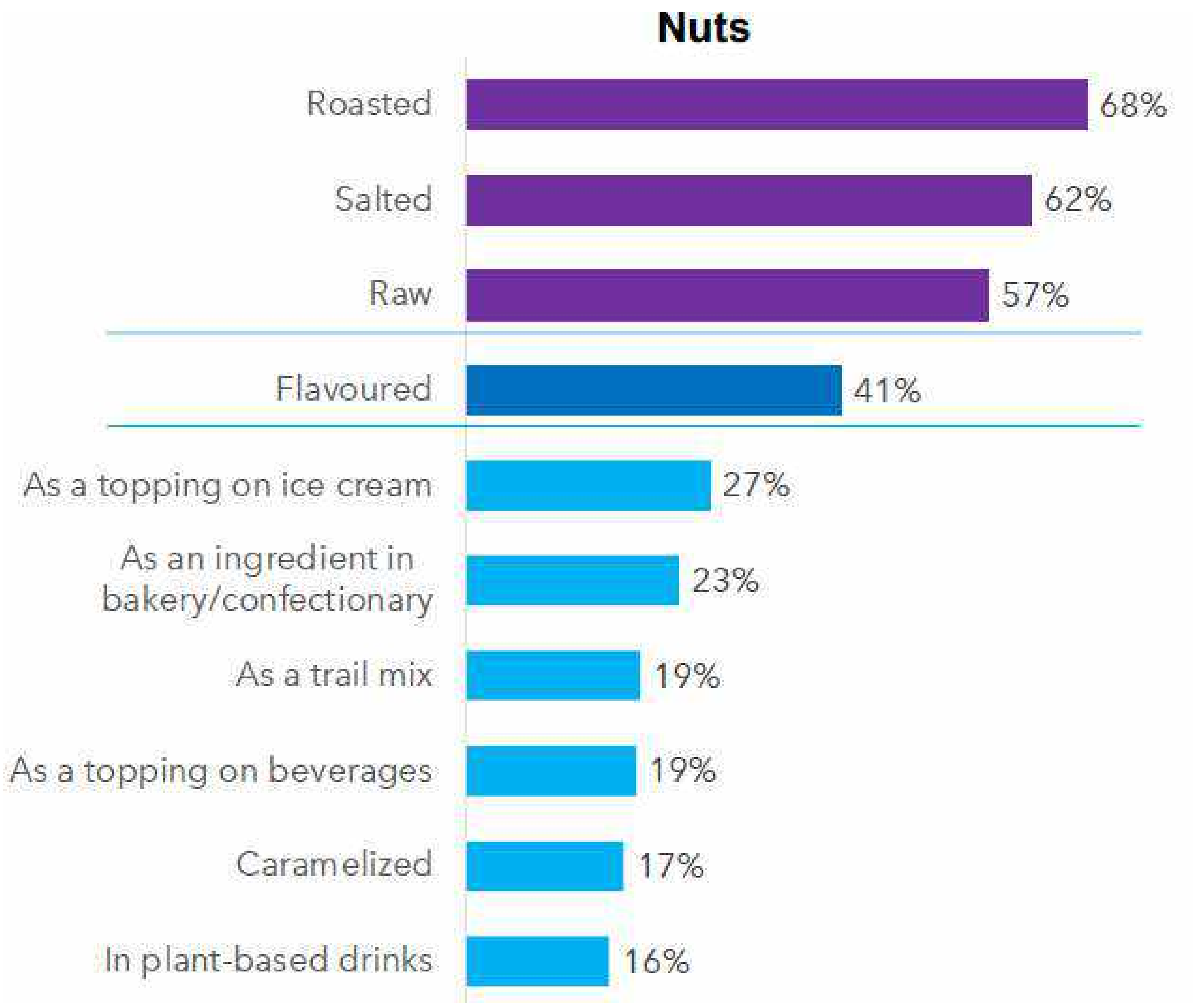


Opportunity for cross-selling / communicate combinations:

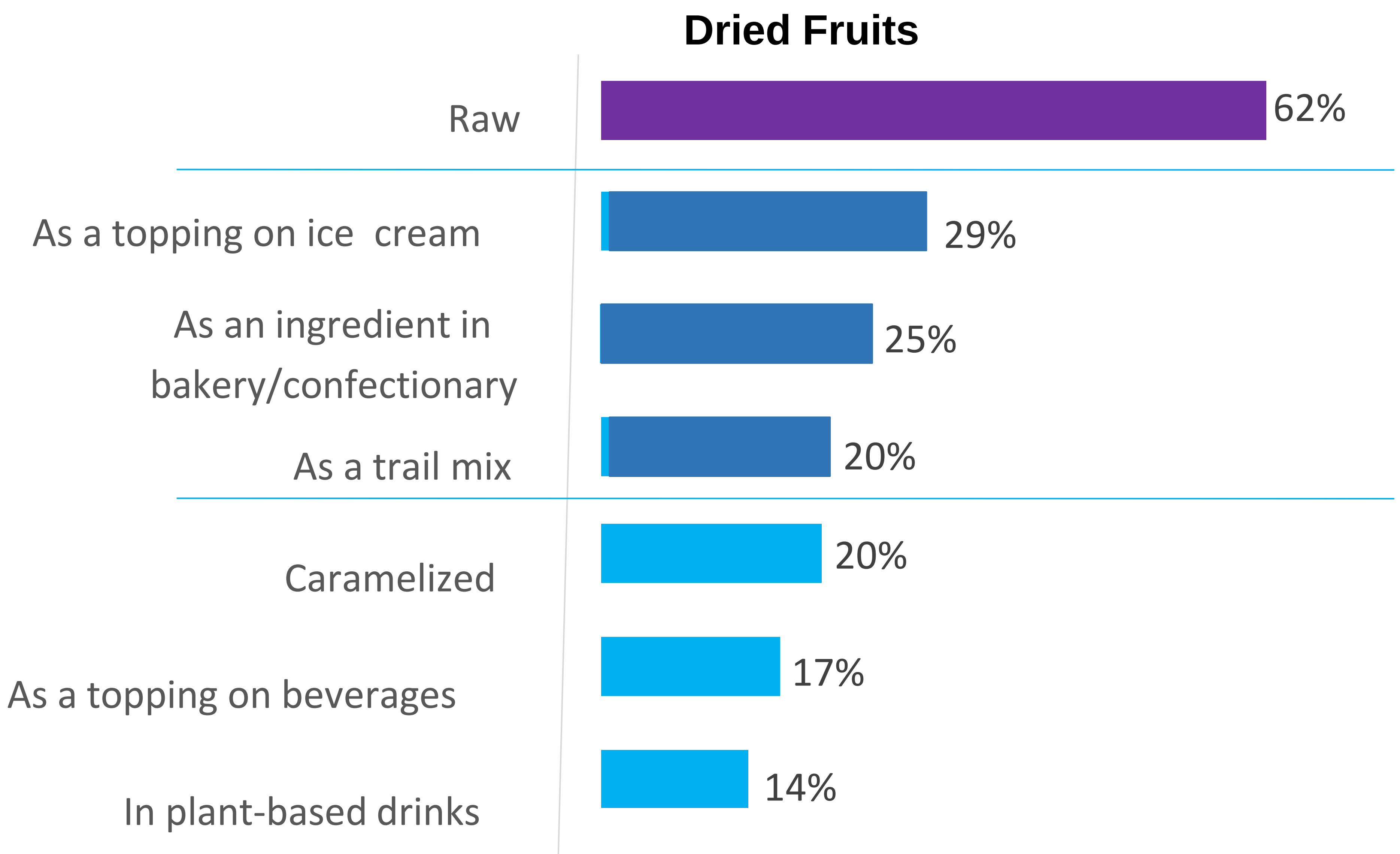


CONSUMPTION OF NDFS WHEN SNACKING AMONG GEN Z IN INDIA

- More than **55%** of respondents consume nuts either roasted, salted or raw.
- **62%** consume their dried fruits raw.



*Mean of mentions: **3.5 ways of consumption on average***



*Mean of mentions: **3.3 ways of consumption on average***

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PROFILE OF THOSE WHO SNACK REGULARLY AMONG GEN Z IN INDIA

The opportunity for snacks is even greater among higher socioeconomic levels and those who are more interested in seeking healthy foods.

Income	Total	Snack regularly	Does not snack regularly
Base	796	748	48*
More than 300,000 INR	37	40	21
Less tan 300,000 INR	45	44	56
Did not answer	17	16	23

Have a higher income compared to the group that does not snack regularly

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RELEVANCE OF FOODS THAT...	Total	Snack regularly	Does not snack regularly
Base (% Extremely + very relevant)	796	748	48*
Give me energy	85	87	73
Are good for immunity	85	85	77
Are Rich in proteins	85	86	71

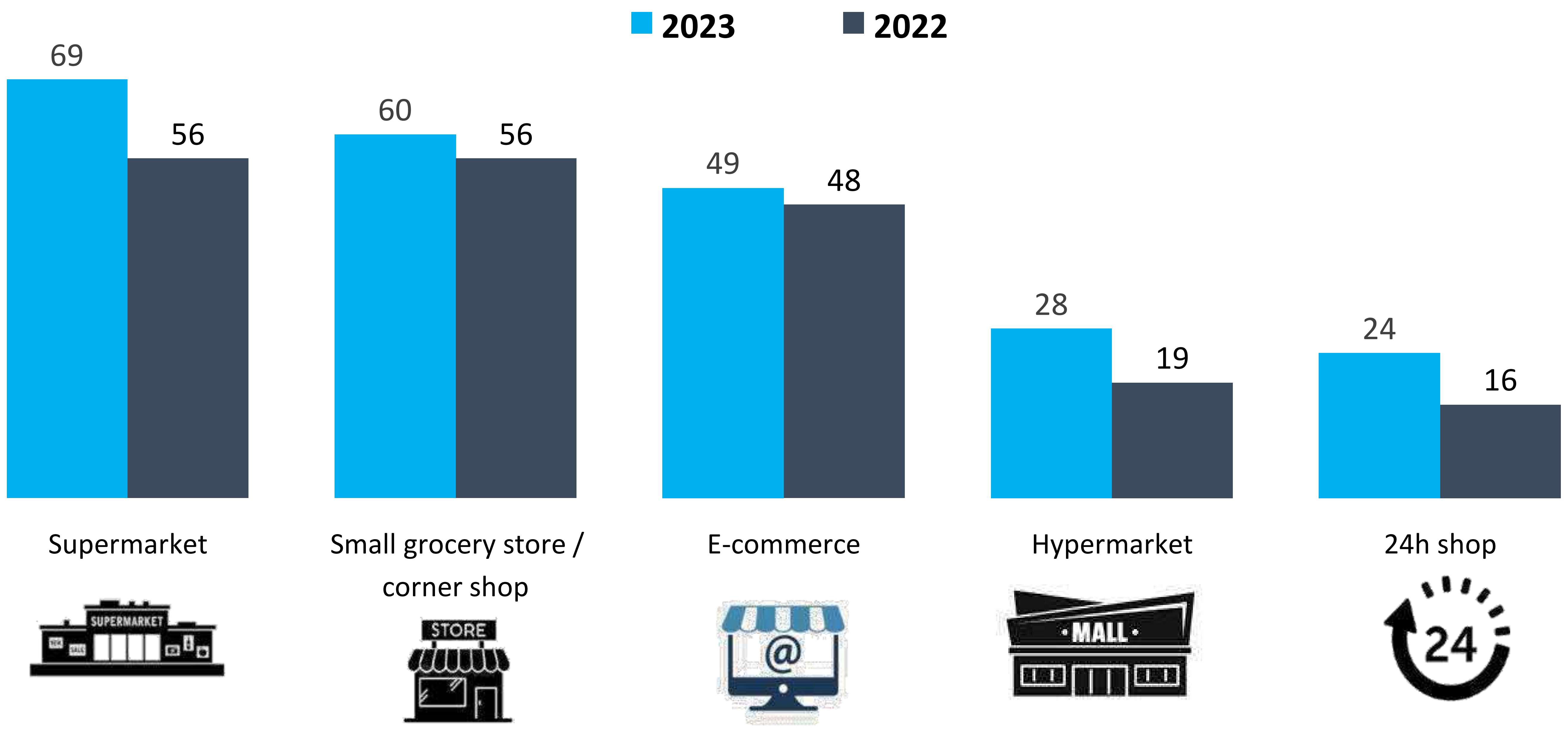
Are more interested in seeking healthy foods compared to the the group that does not snack regularly

Cultural Context Regarding Purchasing and Meals

PURCHASE CHANNELS FOR BUYING NUTS AND DRIED FRUIT

AMONG GEN Z IN INDIA

- N&DFs' main channel of purchase is the supermarket, followed by small groceries.
- The online channel increases slightly



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Q.13. Where do you usually buy NUTS and/or DRIED FRUITS?
DATA IN %
SAMPLE SIZE: 2022=498 / 2023= 800

FORMAT PURCHASED WHEN BUYING NUTS AND DRIED FRUITS AMONG GEN Z IN INDIA

- Regular Size comes out on top.
- Individual snack sized pack is on the rise.
- Family size is more relevant in the East side of India

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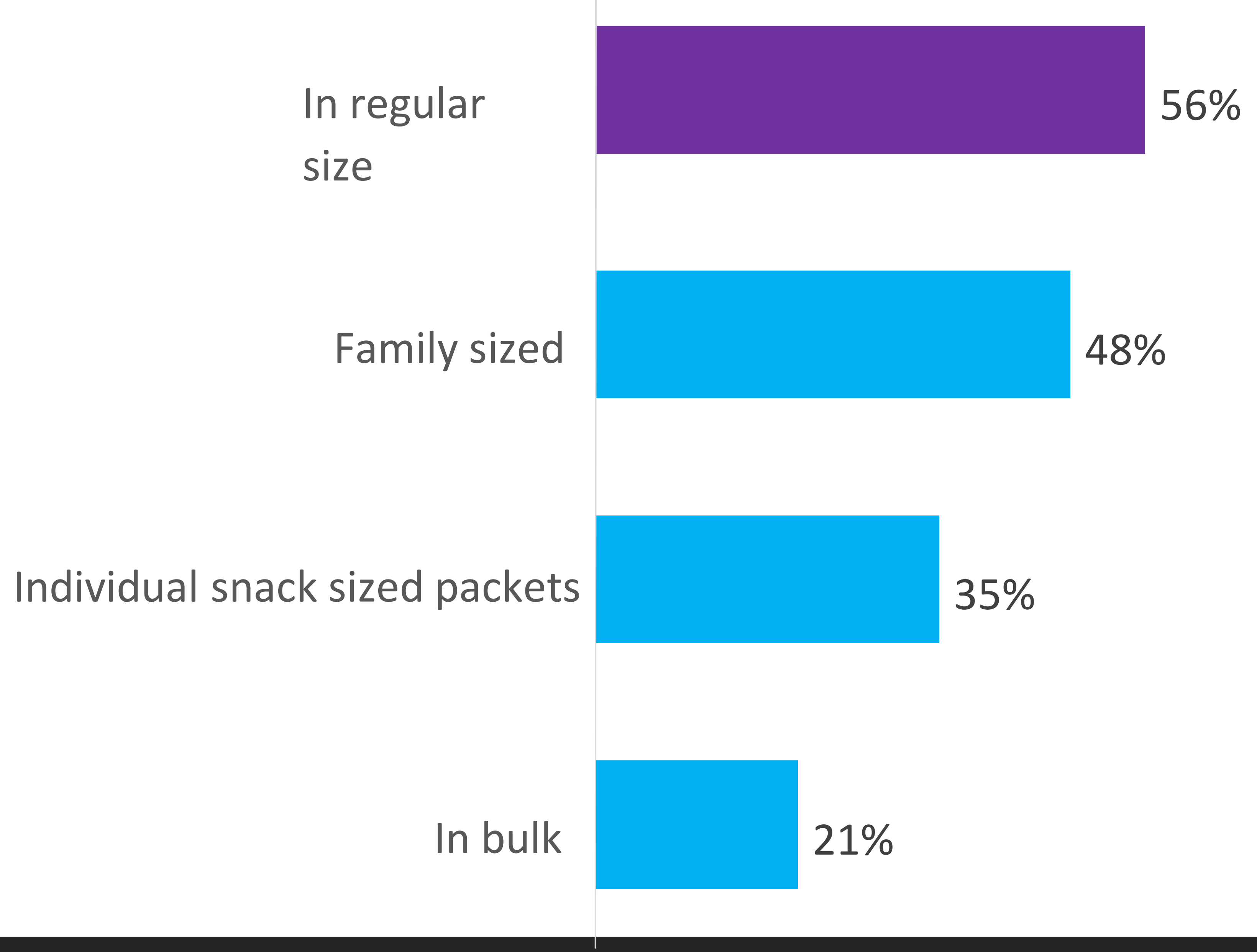
Format Purchased



By Regions

North	South	East	West	Central*
Regular: 59% Family: 46%	Regular: 48% Family: 45%	Regular: 55% **Family: 53%**	Regular: 57% Family: 51%	**Regular: 65%** Family: 53%

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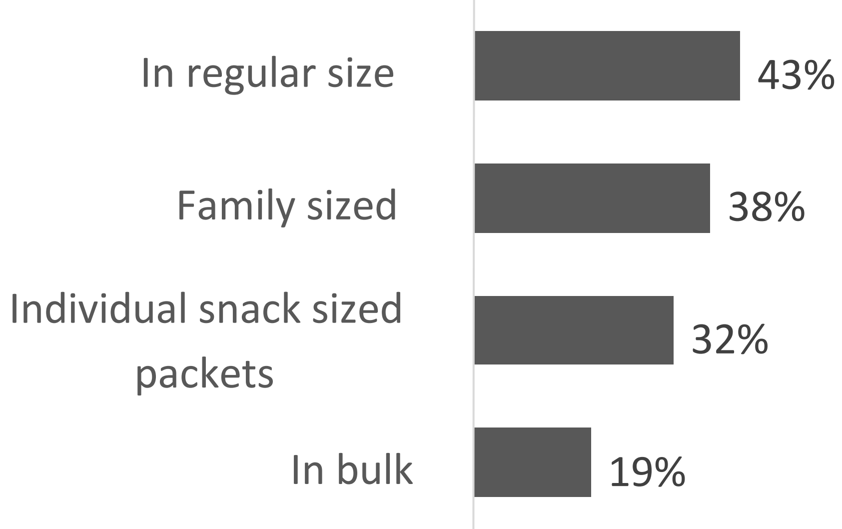
Format Purchased Among Those Who Snack On-the-go (Base= 269)



Those who snack on-the-go show the same trend as the total sample when it comes to the format purchased

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Q.14. When buying NUTS and/or DRIED FRUITS, in what format do you buy them?
DATA IN %
SAMPLE SIZE= 800
**Small sample size (more than 30 responses but less than 75)*

MEAL DECISION MAKER VS MAIN SHOPPER AMONG GEN Z IN INDIA

Gen Z decides and shops their own snacks. This result could be influenced by those who snack on-the-go, not only at home.
The rest of the meals are mainly decided by the mother but shopped by different members of the family.

	BREAKFAST		MIDMORNING		LUNCH		SNACK		DINNER	
	Decision Maker	Main Shopper	Decision Maker	Main Shopper	Decision Maker	Main Shopper	Decision Maker	Main Shopper	Decision Maker	Main Shopper
ME	55	53	49	47	43	43	79	71	46	46
MY MOTHER	73	47	65	49	70	53	33	34	72	54
MY FATHER	25	46	22	42	26	47	17	30	32	48
MY SIBLINGS	17	13	14	12	15	13	19	19	19	14
MY GRANDMOTHER	7	4	7	4	8	4	5	5	10	7
MY GRANDFATHER	5	3	3	3	4	3	3	5	6	5
OTHERS	1	1	1	1	2	2	2	1	2	2

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Q15. In your house, who decides what is eaten at each meal? / Q16. Who buys the food?
DATA IN %
SAMPLE SIZE= 800

Looking to the Future

SUMMARY

- Although there are challenges, there are opportunities for growth:
  - Flavoured nuts, nut-drinks and spreads and other **added-value products** saw an overall increase in demand.
  - Demand keeps growing under various forms in the emerging markets such as India and China
- **India and China**: huge expansion potential.
- **SE Asia and South America**: next places to target large and growing populations but require strong promotional campaigns.
- Key opportunity to create demand to Gen Z in India through snacking:
- Food that gives energy, immunity and proteins are the most important benefits to Gen Z in India.
- Our products must overcome two barriers to achieve greater consumption: they must be both tasty and affordable.
- Opportunity for cross-selling or promoting different combinations of products.

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