



USAID Research Study

Research Study on Consumer Demand for Elephant, Rhino and Pangolin Parts and Products in Vietnam

USAID Vietnam

Research Report submitted by GlobeScan

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The research conducted by GlobeScan.

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Disclaimer

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Summary of Key Take-Aways (I)

Purchase incidence, products, purchase intention and acceptability

- Past 12 months purchase incidence of parts and/or products for species surveyed are: elephant (13%), rhino (6%) and pangolin (6%).
 - ✓ For rhino and pangolin parts and/or products, the past 12 months purchase is quite similar across cities and age groups.
 - ✓ For elephant, there are significant differences at city level (significantly lower portion of buyers in Hai Phong and significantly higher in Ho Chi Minh City).
- The most-purchased parts and/or products of elephant, rhino and pangolin are ivory (from 'tusks or teeth') (32%), horn (41%) and scales (37%), respectively. For rhino and pangolin, powder is also popular among buyers, particularly in Ho Chi Minh City. Can Tho scores relatively higher on many of the species purchase and intention to purchase indicators and this warrants specific attention in (planning) intervention campaigns.
- On average, the past 12 months buyers of rhino, elephant and pangolin parts and products claim to have spent approximately 41.1, 18.9 and 18.6 million VND on their last purchase. Majority of buyers (72%, 68%, 63% of rhino, elephant and pangolin buyers respectively) are willing to pay up to 10% more than the actual (most recent) price for the same next purchase.
- With 12%, 8% and 7% of the total sample intending to purchase, respectively, elephant, rhino and pangolin parts and/or products in the future, the portion of Intenders is similar to that of Past 12 Months Buyers. However, the intention to (re)purchase is significantly higher among the current buyers of these species, suggesting a habitual behavior, less malleable to change.
- When asked if they find it acceptable to buy parts and/or products of these species, 10% of the respondents find it acceptable to buy or own elephant parts and/or products, and less than 10% find it acceptable to buy or own rhino or pangolin parts and/or products. However, a significant portion remains neutral, which indicates the likelihood of an increase in potential buyers.

Summary of Key Take-Aways (2)

Purchase channel

- The most common purchase channel in Vietnam for all three species surveyed is from ‘a private individual’, suggesting that purchases are mostly being done from or via trusted persons. The other popular channels are specific to each species:
 - ✓ A significant portion of buyers also claim to buy rhino parts or products overseas, during leisure trips.
 - ✓ Retail stores are another important channel for the purchase of elephant products.
 - ✓ Traditional Medicine pharmacies are the second most important channel of purchase of pangolin parts.

Buyer profile

- Buyers of rhino, elephant and pangolin product have significantly higher income than total representative sample and more likely to travel outside Vietnam.
- While buyers of rhino and pangolin parts and products are significantly more male, buyers of elephants parts and products have similar gender profile to the total representative sample.

Awareness of messages and revised Penal Code

- While a majority of respondents claim to have heard messages on the topic of stopping the consumption of animal parts and/or products in the past 12 months, awareness is relatively superficial or generic, indicating room to increase the recall of the message content. This should go along with a different messaging approach in order to change behavior.
- Around half of rhino, elephant and pangolin past 12 months buyers are either not aware or not sure about the revision of the Penal Code. The implications to SBCC efforts could be to continue to build (the depth of) awareness of the Revised Penal Code, to communicate more clearly how the law is being revised and how it impacts everyone at a personal level.

Summary of Key Take-Aways (3)

- **Drivers among Past 12 Months Buyers:**

- Rhino PI2M Buyers: **“are worth their price no matter how expensive”** and **“indicate wealth, power and social status”** are seen as highly important and hence, these are the main drivers for buyers
- Elephant PI2M Buyers: **“are beautiful,” being “good materials for home decoration,” “a good souvenir to buy from a holiday”** and **“indicating wealth, power, social status”** are seen as highly important and are the main drivers for buyers
- Pangolin PI2M Buyers: **“increase efficacy of other medicinal ingredients”** is seen as highly important and is the main driver for buyers. The perception that **“pangolin meat is delicious”** is another important driver of usage/purchase

- **Purchase decision and influencers**

- Rhino parts and/or products are planned purchases for half of the buyers, with the decision often motivated by friends or by a traditional medicine doctor.
- Elephant parts and/or products are more often unplanned purchases, with the purchase decision mostly made by the buyers themselves. Those who purchased based on the recommendations of others mostly relied on advice from friends and on information they found online.
- Pangolin parts and/or products are unplanned purchases for half of the buyers. Overall, the purchase decision is made upon the recommendation of friends or by the buyers themselves. 18% of the buyers are motivated by a Traditional Medicine doctor.

How to Read this Report

This report provides comprehensive information on the methodology and findings of the quantitative component of the consumer demand research study. Since this report has several sections, with varying degrees of detail, the following provides a guideline to facilitate reading and ready reference:

For the time-pressured reader:

- Summary of Key Take-Aways (pages 4-6) provides key highlights of the three species
- Chapter 2, the Summary of Findings (pages 20-45) provides the main learnings for each species

In addition, for the in-depth reader:

- Chapter 1 (pages 8-19) gives the context, the methodological foundation and the analytic framework of the study
- Chapter 3 (pages 46-116) provides an in-depth analysis and detailed findings on the purchase of parts and/or products of elephant, rhino and pangolin (one chapter with detailed findings for each species)
- Chapter 4 (pages 117-119) provides the analysis of the perception and awareness of regulations
- Chapter 5 (pages 120-149), the Appendix, provides a literature review, detailed methodology of quantitative research, additional details on the qualitative, and analysis

I. BACKGROUND, OBJECTIVES AND METHODOLOGIES



Research Background

The large-scale consumption of wildlife parts, products and derivatives is one of the key extinction drivers for endangered species worldwide. Vietnam is a principal destination and transit country for illegal African rhino horn and elephant ivory, and is a source country for the illicit poaching of pangolins and also a transit and market for pangolins.

Demand for illegal wildlife parts and products in Vietnam is within a context of strong cultural norms that encourage consumption of wildlife for prestige and by traditional beliefs regarding the health benefits obtained from their consumption. Demand persists for some species despite efforts to reduce it. Rates of arrest are limited, the rate of convictions is less than one percent of those arrested and penalties for convictions have been small.

USAID commissioned GlobeScan Incorporated, a consultancy which specializes in research in the area of demand reduction of wildlife products and communication research to influence the (potential) consumers of these products.

This report presents the results of the quantitative research program conducted amongst consumers in Vietnam from May 9 to July 29, 2018 on the purchase, use and intention to use illegally traded wildlife (rhino, elephant, pangolin).

This report also includes a summary of the qualitative results. Qualitative research is primarily exploratory research, and is used to gain an understanding of underlying reasons, opinions and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research. The results discussed in this report are individual and qualitative responses of participants in this survey, and thus one cannot derive any generalizations from these results.

Research Objectives

This research will serve as baseline data for future initiatives in relation to attitudes, values, motivations and behaviors of the buyers, users and intending consumers of rhino, elephant and pangolin products in Vietnam. The objectives of the survey are to identify:

- The number of people currently buying, using or intending to buy/use these wildlife products
- Awareness and attitudes toward conservation issues and wildlife protection
- The prevalence, frequency, volume of purchase/use of these species
- The channels of purchase of these species
- Key consumers of these species (psycho-demographic, as well as socio-demographic insights to be provided to build a consumer profile)
- Usage/buying intentions: what are the key drivers/barriers to purchase? Reactions to price fluctuations and perceived product attributes/utility to be probed
- The major motivations driving purchase/use of the products from each species and thereby identify motivational clusters of buyers and users for the most-consumed commodities
- The knowledge, attitudes, intention and behavior relating to trading/consumption amongst target consumers of each species
- The social profile of each consumer group / motivational clusters of each species: demographics, economics, education, family background
- Perceptions on market availability of target wildlife products

Research Design – Three Major Components

1. Literature Review

Previous studies on the illegal wildlife trade of the three species conducted by organizations such as USAID, WWF, TRAFFIC, WildAid and ENV were reviewed, and in particular studies conducted by GlobeScan on this topic for National Geographic in 2015 and the survey conducted by Ipsos for TRAFFIC and WWF in 2013 were leveraged.

2. Qualitative Research

Qualitative research in the form of focus group discussion (FGDs) was used to gain an understanding of underlying reasons, opinions, and motivations. It provided insights into the problem and helped to develop ideas and hypotheses for following quantitative research.

4 focus group discussions (FGDs) with consumers of elephant, pangolin and rhino parts or products were conducted in May 2018.

- 2 groups in Ha Noi:
 - 1 male group aged 40–70
 - 1 female group aged 20–39
- 2 groups in Ho Chi Minh City:
 - 1 female group aged 40–70
 - 1 male group aged 20–39

3. Quantitative Research

n=1,400 structured consumer interviews and **n=100** booster interviews (i.e. 1,500 interviews in total) with rhino horn buyers/users via mobile phones in Ha Noi, Hai Phong, Da Nang, Ho Chi Minh City (also referred to as HCMC) and Can Tho.



Methodology Overview: Qualitative Research and Fieldwork

Method

Focus group discussions with consumers of elephant, rhino and pangolin parts and products in Ha Noi and Ho Chi Minh City *.

Targeted Respondents

- Affluent males and females aged between 20 and 70 years old.
- Those who have purchased parts or products of elephants, rhinos and pangolins in the past 12 months.
- Those with a **personal** monthly income of a minimum of VND 10,000,000 (~USD \$440) before tax; which is more than twice the average personal income in Vietnam. **

Profile of Groups

- Each group consisted of 8 people, of which 4 were (very) likely to purchase parts/products of the same species again, and 4 who were (very) unlikely to purchase parts/products of the same species again.
- Single-gender groups were conducted, as rhino products are often used to alleviate sexual issues in which case a mixed group could have been uncomfortable for the participants.
- Groups were split by age (20–39 and 40–70) as older Vietnamese people tend to be less familiar with the concept of market research, which may have affected the discussion negatively.
- For more details on the profile of the group scheduling and participants, please see the appendix.

** The consumers of wildlife products are likely people with high income. Hanoi and Ho Chi Minh City are chosen for qualitative because they are two biggest cities with highest average income.*

*** This is a very important pre-selection, as respondents with lower incomes were not included in the survey design, resulting in a higher purchase incidence level of parts and products of elephant, rhino and pangolins. From our (and other) survey(s), it has become clear that rising income levels facilitate purchase of wildlife products.*

Methodology Overview: Quantitative Research and Fieldwork (I)

Method, Recruitment and Questionnaire

- The quantitative survey was conducted **via mobile phone, using an opt-in mobile phone users panel**, from **July 5 to July 30 2018**, with a questionnaire length of 15 minutes on average.
- In Vietnam, the smart mobile phone is the **first truly personal mass medium** with 90 percent urban penetration, 60 percent rural penetration and it is the number one media source in terms of daily consumption (higher than TV). It can reach wealthy and hard-to-engage consumers, it allows images and video captures and it is the most convenient, fast, cost-effective and representative data collection method in the country. Respondents can answer the survey either on their smartphones or on their computers, of which a majority chose their smartphones.
- In total, **1 400 respondents** * from the mobile population in **five selected cities in Vietnam** ** were sampled, and any respondents under 18 years of age, respondents with a **monthly household income of 12,000,000 VND** or less and respondents working in the advertising, public relations, marketing, market research and media industries were screened out.
- Additionally, **100 booster interviews** (also by mobile questionnaire) with rhino horn buyers/users were conducted in the same five cities as the main sample.
- For the respondents to answer honestly and be “neutral” when they are qualified for the survey, the email received by the potential respondents only mentioned the general topic of “lifestyle and shopping practices in Vietnam”. This technique is in line with other similar methods employed in surveys around sensitive topic areas.
- Respondents were rewarded in free mobile top-up minutes (valued between 50,000 – 100,000 VND) for their participation.

** The respondents were recruited from InfocusMekong (IFMs) panel and the sample was representative of the mobile population aged above 18 years old. IFM has demographic data on over 47,000 panelist and is hence able to set economic strata, gender, age and other data to target specific consumers, reduce survey time, increase speed and reduce cost.*

*** Five cities (Hanoi, HCMC, Da Nang, Hai Phong and Can Tho) were selected because (1) Hanoi, HCM and Da Nang are 3 economic centers representing 3 regions along Vietnam, (2) Hai Phong is in the top 5 highest average income and it represents Northern area, (3) Can Tho is the economic hub in Mekong Delta with high average income, and represents Southern region.*

Methodology Overview: Quantitative Research and Fieldwork (2)

Comparison with Other Surveys

- This survey is based on a selected sample, with a choice of cities being considered as active markets in the wildlife parts and/or products trade. Most important: the method used was mobile data collection, which is different than previous methods deployed. As the method and selected sample are different than in previous surveys, the findings **cannot be compared** with other surveys. For example, the survey conducted by Ipsos for TRAFFIC and WWF in 2013 was conducted face to face among Ho Chi Minh City and Ha Noi general populations aged 30+ at their homes. Data collection via mobile phone results in higher, but probably more honest and accurate purchase figures for wildlife products.
- While the data/key metrics are specific for the five cities, the underlying patterns on purchase drivers are relevant for the buyers, and can be compared to other surveys whereby the results are crucial inputs for campaigns. In other words, specific metrics such as incidence level cannot be compared one on one, but the bigger picture, like motivations for gifting or the appreciation for carving of ivory, can be compared.

Methodology Overview: Sample Description

National Representative Sample

- This quantitative survey was based on **an end sample of 1400 respondents representative by gender, age and income of the national population** in five cities (Ha Noi, Hai Phong, Da Nang, Ho Chi Minh City and Can Tho), **plus a booster of 100 rhino horn buyers/users**.
- To achieve this sample, **quotas on gender, age and income** were set from the start of fieldwork and were monitored regularly during the fieldwork.
- The main sample of $n=1400$ respondents was recruited to be able to define the purchase incidence of elephant, rhino and pangolin parts and/or products.

Sample of Buyers and Other Sub-groups

- Among the total representative sample, a specific sample of **Past 12 Months Buyers** of each of the **three surveyed species** was identified for specific analysis. This sample allows the uncovering of the motivations, drivers and inhibitors of wildlife parts and/or products buyers.
- The analysis is also conducted among other sub-groups of respondents; for instance, the data was analyzed by users, purchase intenders, gender, age, city, etc.

Definition of the different samples of Buyers

- **‘Ever Buyers’** are defined as anyone who bought parts and or products of a given species anytime in the past, even if only once. They answer ‘Yes’ to the question: *‘Please indicate if you have ever bought products and/or parts of these species, for yourself or someone else?’*
- **Past 12 Months Buyers** are defined as anyone who bought parts and or products of a given species in the past 12 months. They answer ‘Yes’ to the question: *‘And have you bought products or parts of the following species, for yourself or someone else, in the past 12 months?’*
- **‘General population’** refers to the total sample base we interviewed, e.g. $n=1,400$ which were representative of the total Vietnamese population in the five selected cities based on age, gender and income. Please see slide 16 for details on the quotas

Methodology Overview: Sampling and Quotas

Sampling Plan

The fieldwork was monitored on a daily basis and detailed checks of interim data were performed during fieldwork (at 10%, 50% and 80% of sample completion) to ensure data quality and consistency.

In order for the sample to be representative by gender, age and education, quotas were set from the start of fieldwork and were monitored regularly during the fieldwork. Since the most recent Vietnam Census data is from 2009, in agreement with our partner IFM, the client quotas were slightly adapted to reflect the current situation.

During fieldwork, the detailed reviews and monitoring helped to identify the necessary actions required to meet the quotas. For instance, for the sub-groups that were slower to respond (e.g., 55 years old and above), more invitations were sent to these potential respondents via different panels and fieldwork was open longer for completing these samples.

The following quotas were used at total level:

| Quotas on Age | % |
|---------------|-------|
| 18–19 | 3.9% |
| 20–29 | 18.9% |
| 30–39 | 15.9% |
| 40–49 | 13.4% |
| 55–59 | 10.3% |
| 60–69 | 5.2% |

Source: Vietnam Census (2009) adapted to estimated current situation

| Quotas on Gender | % |
|------------------|------|
| Female | 50.7 |
| Male | 49.3 |

Source: Vietnam Census (2009) adapted to estimated current situation

| Quotas on Income | % |
|---------------------------|-----|
| 12,000,001–23,500,000 VND | 50% |
| 23,500,001 and above VND | 50% |

Source: Vietnam Census (2009) adapted to estimated current situation

Methodology Overview: Design and Analyses

Driver Analysis Methodology

We can measure importance of different attributes via 'stated' importance and 'derived' importance. In stated importance we ask directly how important the issue while in the second – we derive importance scores using statistical modeling. The latter helps identify what really matters to respondents as opposed to what they say is important to them. Derived importance is less vulnerable to biases and is the preferred solution in contemporary marketing and social research.

In order to derive attribute importance scores we use a dependent (outcome) indicator and a set of independent variables (predictors).

The importance score is the strength of a particular predictor in driving the outcome.

Outcome variable in the current study was Future purchase intention.

Predictors are the attributes in q17: *'Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of pangolins. Please use a scale of 1 to 5 where 1 means that you "strongly disagree" and 5 means that you "strongly agree" with the statement.'*

In this study, we used Partial Least Squares (PLS) regression to derive importance scores for each attribute at Q17. The derived importance scores measure the relative impact of the attributes on purchase likelihood. The higher the score, the more important the attribute in driving purchase intent.

Methodology Overview: Narrative Analysis (I)

A narrative is a message, theme or story. The communication of a narrative may change attitudes and behavior toward purchasing wildlife. Narratives can be used in developing content for communication campaigns and sending the right messages to the right group of consumers.

Attitudes and perceptions exist in people's mind in a form of verbal narratives. In this study we reconstructed the content of the narratives and measured their prevalence. The narratives exist in the form of numeric scales that reflect respondents' stances or attitudes toward a particular narrative. The prevalence is represented by a bi-polar scale from -X to +X. The higher the score the higher the prevalence of a particular narrative. Negative scores represent the level of rejection of a particular narrative. The acceptance of specific narratives may vary across different demographic groups and geographies.

Narrative Analysis (to reveal attitudes and motivations)

People's decisions and behaviors are underlined by narrative frames that explain and justify them. Using **Principal Component Analysis (PCA)**, we identified stable combinations of attitudes, perceptions and motivations that exist in people's minds when they think about specific wildlife products or explain their attraction to them. Narratives can be interpreted as drivers/motivators or deterrents. Please see the next page for the statements we asked respondents to agree/disagree with and the narratives which we constructed using PCA.

Narrative Analysis (2)

Example of Analysis conducted in this Survey

Statement groupings and Narratives obtained for Elephant parts and/or products:

Statement groupings

| | |
|---|-------|
| Are good for building business relationship | 0.717 |
| Have healing power and bring good health | 0.688 |
| Are worth their price, no matter how expensive | 0.645 |
| Are a good investment that won't depreciate in the future | 0.640 |
| Bring good Fengshui | 0.603 |
| Are ideal to pass on to future generations | 0.591 |
| Indicate wealth, power and social status | 0.526 |

Narratives

Narrative 1: Investment and social
Elephant parts or products have a high investment value and various benefits: They are worth their price while being good for building business relationships, they have a social role by indicating wealth/ social status, and I believe that they bring good health.

| | |
|--|-------|
| Are beautiful | 0.721 |
| Are good materials for home decoration | 0.654 |
| Are good souvenirs to buy from a holiday | 0.641 |

Narrative 2: Beauty
Elephant parts or products are beautiful materials, nice to use as home decoration, and are also good to buy as a souvenir.

| | |
|---|-------|
| Are a unique and irreplaceable material | 0.740 |
| Are good materials for showcasing artistic skills | 0.580 |

Narrative 3: Uniqueness and artistic value
Elephant parts or products are unique materials with high artistic value.

| | |
|--|-------|
| That come from killed elephants will still bring good luck | 0.818 |
| Protect users from evil | 0.539 |

Narrative 4: Good luck
I believe that even parts or products that come from killed elephants will bring good luck, and I know for a fact that it protects from evil.

| | |
|----------|-------|
| Are rare | 0.911 |
|----------|-------|

Narrative 5: Rarity
Elephant parts or products are rare.

Note on narratives: People's motivations are a very complex thing. Our decision making is affected by combinations of various motives depending on a situation we are in. This is why the statements groupings can include various topics, not always related. But they are all combinations of attitudes that actually exist in people's minds. Sometimes they include similar attitudes (e.g. health benefits only), sometimes different. Narrative 2, for example, combines aesthetic benefits (e.g. beautiful) with functional benefits (e.g. home decoration or a gift). Narrative 1 combines Monetary value (e.g. worth its price) with economic (e.g. good investment) and social benefits (e.g. relationship building or social status enhancement). Narrative 1 deals with the "presentation" function: "Ivory is beautiful and has healing powers. Owning or gifting Ivory helps to enhance my social status and build business relationships. Being expensive and still growing in price emphasises who I am.

SUMMARY OF FINDINGS

Qualitative Phase

Qualitative research in the form of focus group discussion (FGDs) was used to gain an understanding of underlying reasons, opinions, and motivations. It provided insights into the problem and helped to develop ideas and hypotheses for following quantitative research.

- Consumptions Habits
- Main Purchase Occasions
- Awareness of Animal Extinction and Regulations

Consumption Habits (overall)

Main Consumption Occasions



Medicinal: hangover cure, men's sexual health, reproductive problems



Superstition: exorcise ghosts, bring good luck



Gifting and decoration: jewelry, pendants, scales

Main Purchase Channels



Traditional
medicine stores
(physical)



Jewelry
stores



Overseas
(Africa/Thailand)



Close friends/
relatives

Consumption Inhibitors

- Most were aware of how wildlife was killed to obtain the products
- However, most did not care; they see others being the driver since they did not personally kill the animal for the part/product
- Lack of responsibility and strong sense of disconnect as they did not do the killing themselves (across all species)
- Consumers were mostly aware that selling is illegal, but due to lack of law enforcement, they saw minimal consequences for the action

Potential Deterrents

- Proven lack of efficacy scientifically
- Peer pressure – when others stop using
- Enforce the law with heavy penalties

Main Purchase Occasions: Gifting (overall)

Most purchases were for **gifting** (for healthcare, wellness, divination, decorative and professional purposes) and had great value by being very special/unique and memorable due to their rarity and price tag. The rarer and more expensive the items are, the more they are considered a special gift and reflect the receivers' importance.

Gifting Perceptions

- Almost all respondents were more than happy to give and receive wildlife products (from the surveyed species) as gifts.
- There were no discernible negative implications toward the giver or receiver, although this is slowly changing as more foreign influences enter Vietnam. Foreigners do not always respond positively when offered wildlife products as gifts, which may influence change as the gifter wants to avoid possible embarrassment.

Future Gifting

The vast majority would continue to give and receive wildlife parts/products (from the surveyed species) as gifts, largely because the inherent benefit to them outweighs the consequences of their actions, so it seems that the impact that their purchases have on the possible extinction of these species is not something they consider.

Gifting Drivers

Gifters

Many gifts were given to show care for beloved ones and to help influence bosses, government officials, etc. to earn the favor of the individual

Receivers

Considered memorable and that someone thought they are important, special and cared for – typically gifts to family members and up the hierarchical chain to influencers and people in power

Gifting Occasions



Tet
(Vietnamese
New Year)



Job
promotions



Curing
health
problems



Building
personal and
professional
relationships

Elephants: Products, Gifting and Availability



Common Products

- Made of ivory: decorative or divination (a form of fortune telling) materials, pendants
- Made of elephant tail hair: rings and bracelets
- Although less popular, elephant tusks (complete ones) and skin were also mentioned

“I’m very happy when I received elephant ivory but it means I’m contributing to environmental depletion.” – Male, 40, Ha Noi



Gifting

- Ivory and products made of tail hair were the most popular gifts due to their Fengshui value
- Products most often gifted were ivory pendants or elephant tail hair rings
- Most consumers felt happy, proud and important when receiving gifts made of elephant (as it very expensive)
- Very few mentioned being aware of their negative contribution to environmental/species depletion
- A majority of the consumers would not refuse a gift made of elephant to avoid disappointing the gifter
- Only one consumer mentioned extinction concerns as the reason for her to refuse a gift made of elephant
- Elephant products are normally gifted in formal and important (business) relationships
- If it is gifted to their partners, family members or friends, it is often a pendant, bracelet or a ring

“To refuse the gift is very impolite and disappoint presenter, I’ll not do that.” – Female, 33, HCMC



Availability and Channels

In jewelry and Fengshui stores, and in Africa (mentioned by two people who were on a business trip to Africa) and Thailand

“I bought a pair of elephant ivory pendants for me and my wife at a jewellery store, she really liked them.” – Male, 41, Ha Noi



Rhinos: Products, Gifting and Availability



Common Products

- Horn ground into powder, which is used for treatment of hangovers and to improve men's sexual health, and to cure illnesses such as cancer

“Sure, I would accept gift of any of these.” (rhino, ivory, hair, scales)
– Female, 35, Ha Noi



Gifting

- Rare gift as it is not widely available, but it would be accepted as a gift if offered
- Consumers who received a gift made of rhino felt cared for and special
- Very few mentioned being aware of their negative contribution to environmental/species depletion
- Only one consumer mentioned that she would refuse a gift made of rhino due to extinction concerns
- Same as with elephant products, rhino horn is usually gifted in formal and important (business) relationships

“I’ll refuse gifts made of elephant or rhino horn because they’re very poor, I don’t want to use their products.”
– Female, 38, HCMC



Availability and Channels

- Rare, very expensive and hard to find without the help from close friends or relatives who know trusted sources to purchase from
- Africa is considered the best continent for purchasing rhino horns
- Friends and relatives who are sure about the product's origin are the most trusted channels
- Nobody would buy online as they do not trust this channel and expect rhino part and products to be fake

“Rhino horn is very rare, and I have to ask my friend to buy it from Africa for me.”
– Male, 39, HCMC



Pangolins: Products, Gifting and Availability



Common Products

- Scales: dried scales combined with other kinds of Traditional Medicine ingredients to ensure safe reproduction, and to improve lactation
- Meat: for consumption
- A few respondents mentioned other pangolin products, such as blood and embryos (both for the treatment of cancer)



Gifting

- Dried pangolin scales are the most popular pangolin gift, and are given for health purposes only
- Gifters could be a spouse, a colleague and relatives
- Usually for the basic health and non-life threatening treatments, promotion of wellness
- Pangolin products are normally gifted in closer, more informal relationships, like family members, relatives and friends

“I gave my relatives pangolin products to express my caring for their health.” – Female, 40, HCMC



Availability and Channels

- Readily available and easy to buy at any traditional medicine outlet

“You can buy a kilo of pangolin scales in any Traditional Chinese medicine store, that’s very easy.”
– Male, 60, Ha Noi

Awareness of Animal Extinction and Regulations

Awareness of Animal Extinction

A majority have seen images of how wildlife products are removed from animals and are aware of the risk of species extinction, but most were not affected by those images, because:

- they are not the one who removed the products from the animals
- there are many purchasers, so there was a sense of shared responsibility
- they do not purchase the products regularly nor in high quantities
- the products are seen as a by-product: the animals are killed anyway.

“I feel sad when I see how the rhinos are killed..

[but] I’m not the one who kills them... so the product is available and I will still use it.”

– Female, 28, Ha Noi

Regulations

A majority was aware that it is illegal to sell, but some believed it was not illegal to buy.

Due to the poor implementation of laws, the vast majority mentioned that regulations will not much affect their future purchase decisions, as they believe:

- there is lack of policing and only wildlife product traffickers will be arrested by police
- the amount they purchase is little
- the highest penalty is an administrative fine.

“Rhino horn is a very rare and illegal product, thus it’s very hard to purchase.” -

- Male, 25, HCMC

“Trafficking elephant tusk is illegal.”

– Male, 45, Ha Noi

— 2. SUMMARY OF FINDINGS

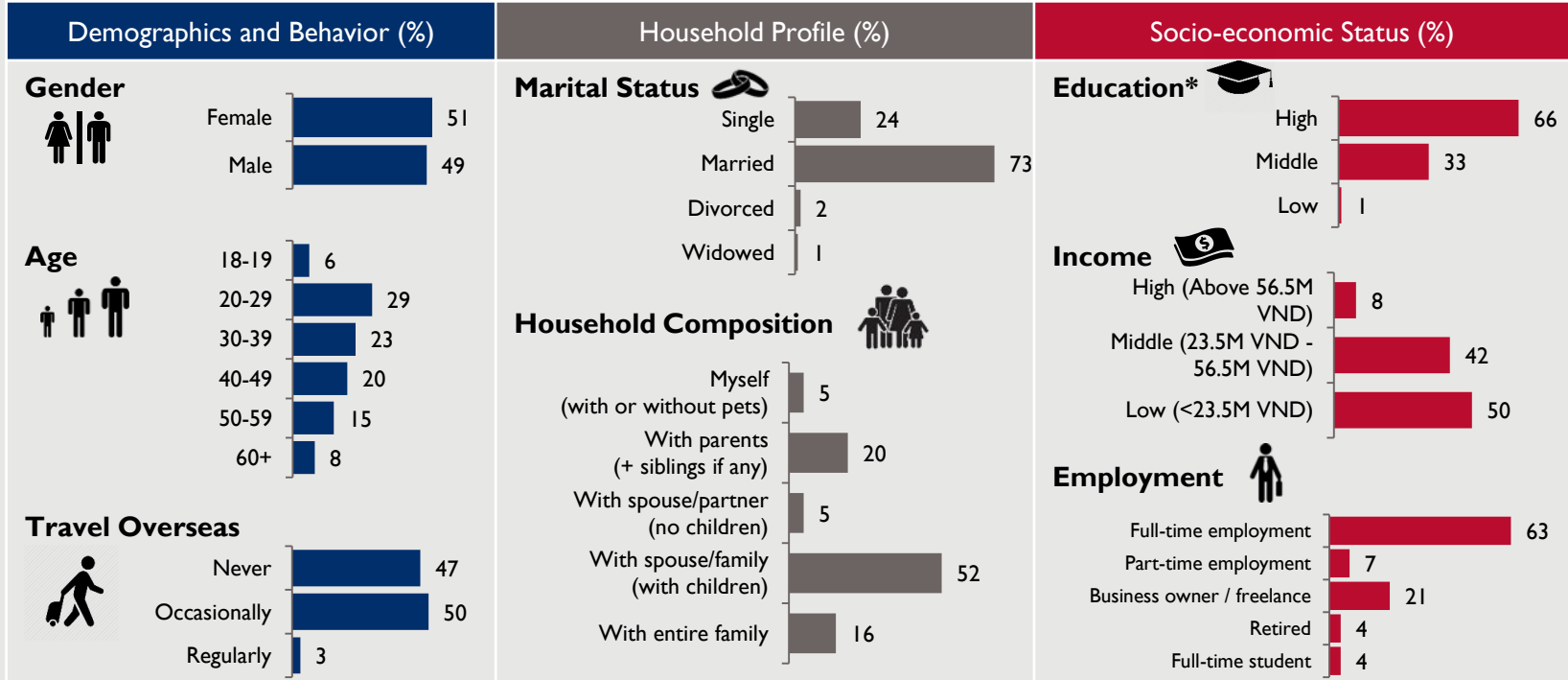
Quantitative Phase



Respondents' Socio-demographic Profile

Overall, respondents are employed, married with children and most do not often travel outside Vietnam. The repartition by gender, age and income is based on national representative quotas.

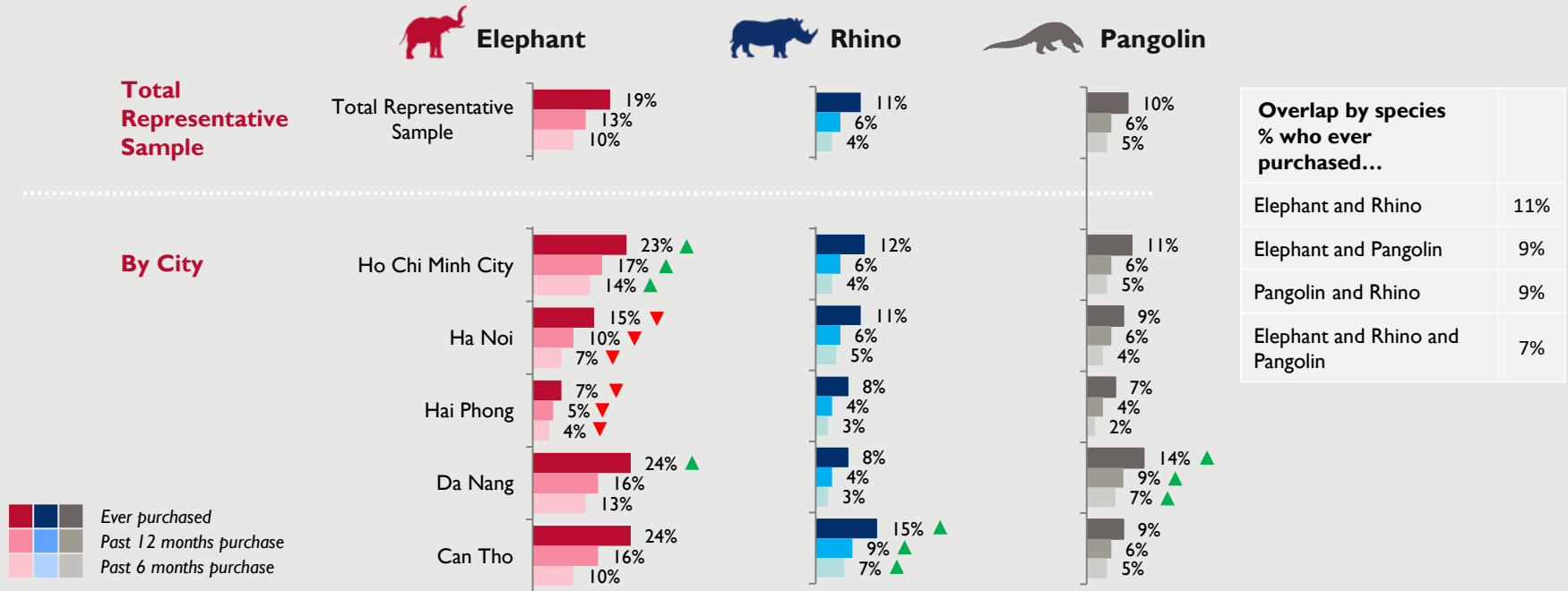
* Note: The education level of the respondents is skewed toward High Education as the sample is based on the urban population in five selected cities and reflects the online population.



S2. Age, S3. Gender, S4. Income, S5. Education, Q22. Marital status, Q23. Household Composition, Q24. Employment situation, Q26. Travel behavior – **Weighted data**
 Base: Total representative sample, n=1400 in five selected cities

Purchase Incidence Summary

The purchase incidence of parts and/or products of rhino and pangolin is similar between cities, except in Can Tho for rhino and in Da Nang for pangolin, where the portion of the different types of buyers is significantly larger vs total representative sample. For elephant, there are more significant differences at city level vs the total representative sample (significantly lower purchase incidence in Ha Noi and Hai Phong, and significantly higher in Ho Chi Minh City).



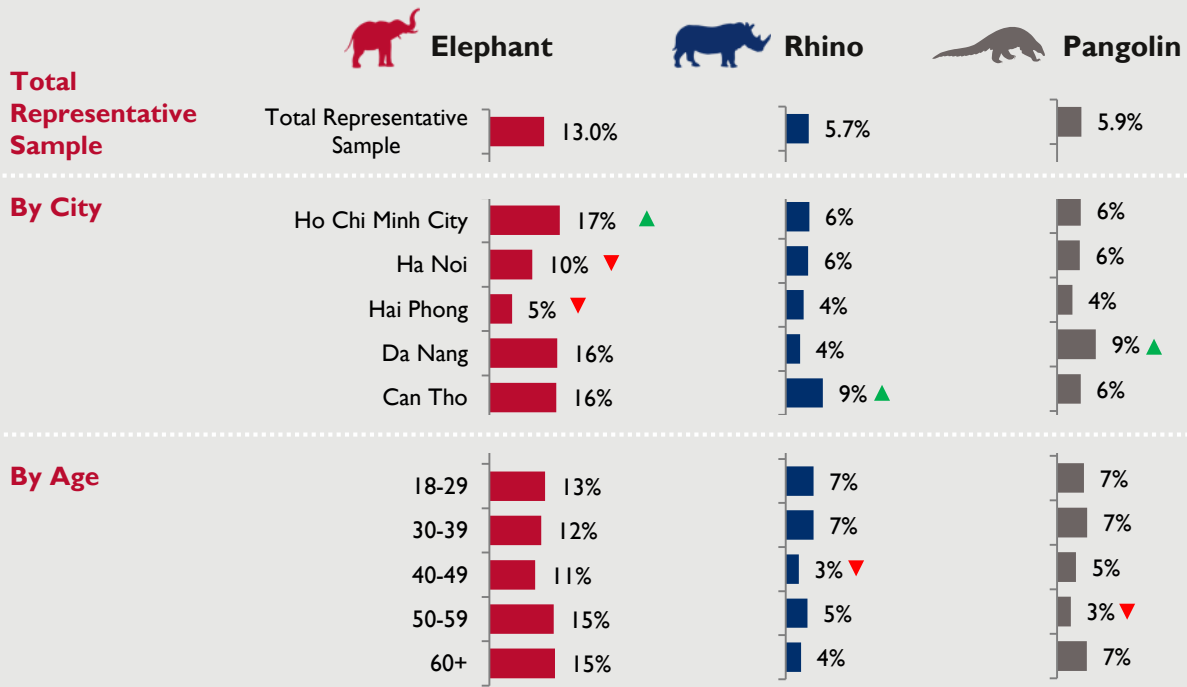
Q1a, Q1b, Q2. Ever purchase, Q3. Past 12 months purchase, Q4. Past 6 months purchase – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

Past 12 Months Purchase Incidence

The past 12 months purchase incidence of parts and/or products of rhino and pangolin is relatively low (6%), and is similar in percentage by city and age group. For elephant, however, there are significant differences at city level (lowest in Hai Phong and significantly higher in Ho Chi Minh City).



| Overlap by species % who purchased... in the past 12 months | |
|---|----|
| Elephant and Rhino | 4% |
| Elephant and Pangolin | 4% |
| Pangolin and Rhino | 4% |
| Elephant and Rhino and Pangolin | 3% |

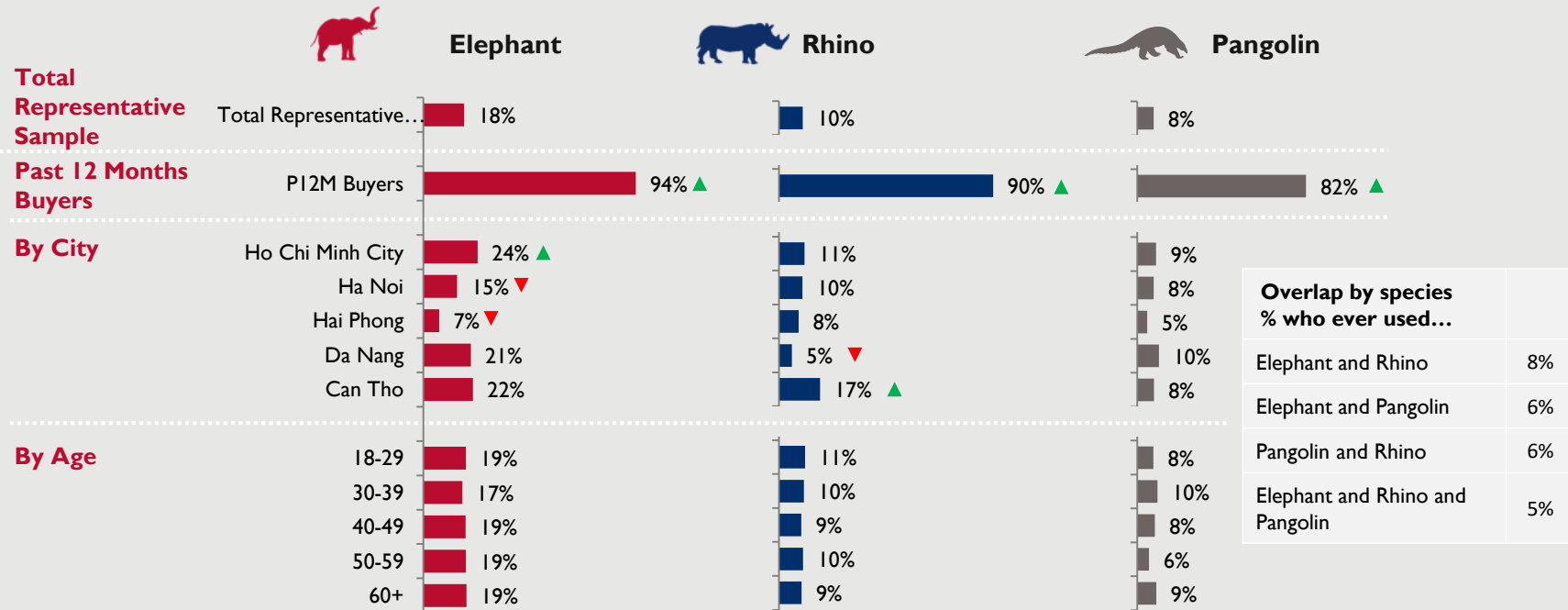
Q3. And have you bought products or parts of the following species, for yourself or someone else, in the past 12 months? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

Ever Usage

The portion of users of parts and/or products of elephant, rhino and pangolin is similar across age groups. There are a few significant differences by city: 24% of the respondents who live in HCMC used elephant products (anytime in the past), which is significantly higher than the portion of users among the general representative population (18%). Usage of rhino is significantly higher in Can Tho vs the general population. It is worth noting that there is a strong overlap between buyers and users for each species, but also between users across the three species.

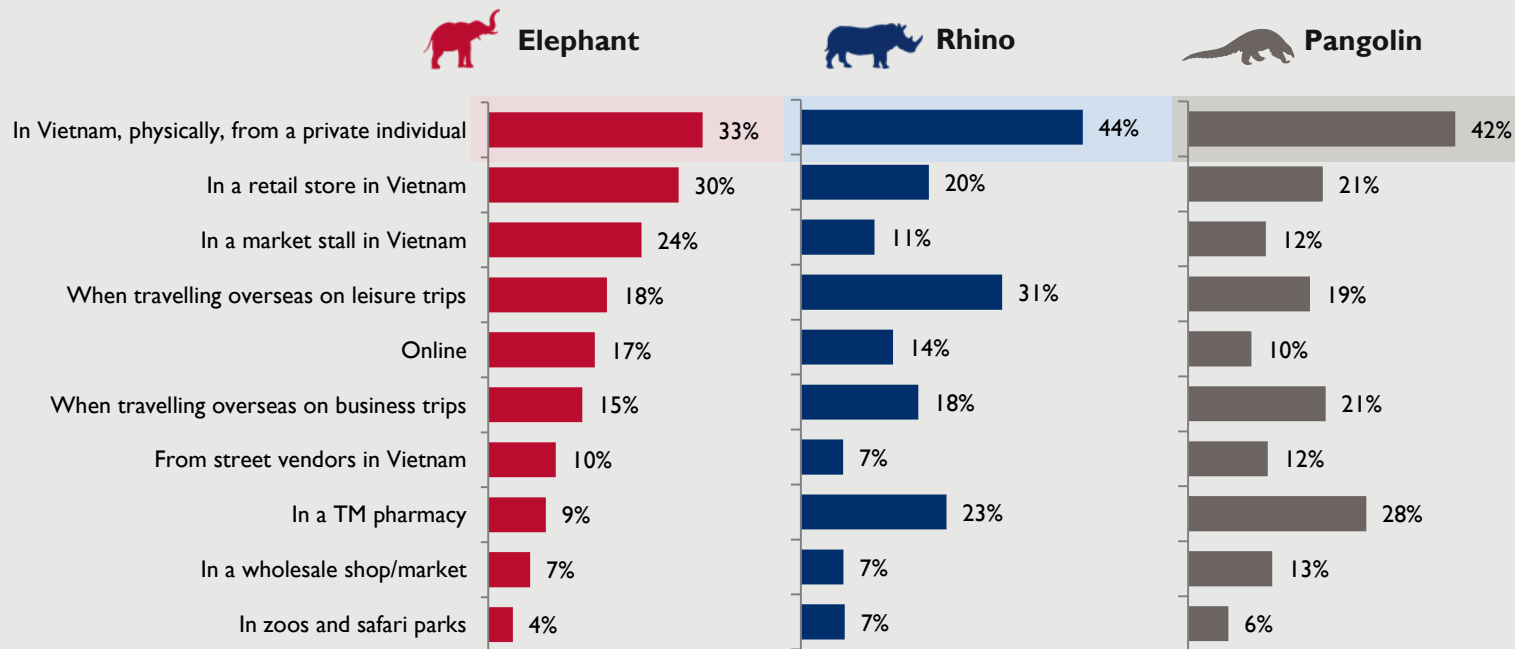


Q6. Have you ever used any products and/or parts of the following species? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities - Past 12 Months Buyers: elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

Past 12 Months Purchase Channels

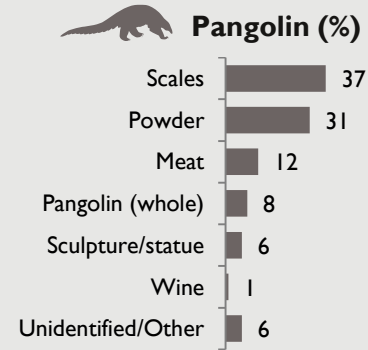
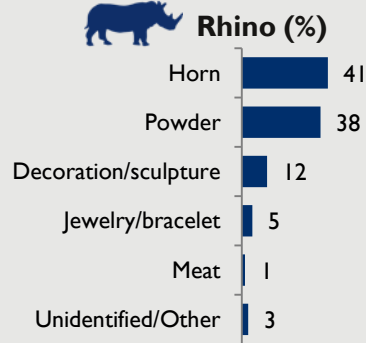
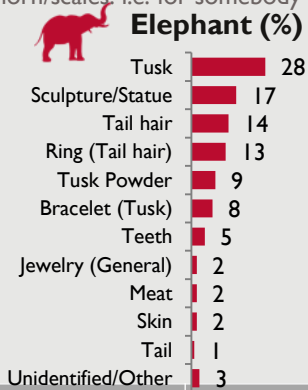
Parts and/or products of elephant, rhino and pangolin are all mostly purchased from private individuals in Vietnam. For rhino parts and/or products, however, one in three buyers purchase them when traveling outside Vietnam on leisure trips. Retail stores are another main channel for the purchase of elephant products, while Traditional Medicine (TM) pharmacies are the second main channel of purchase of pangolin parts.



Q12. Where did you purchase products and/or parts of elephant/rhino/pangolin? – **Weighted data**
 Base: Past 12 Months Buyers – elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

Main Parts or Products Purchased by Species

Tusks (28%), Horns (41%) and Scales (37%) are the main parts and/or products purchased of elephant, rhino and pangolin species, respectively. However, for rhino and pangolin, powder is also popular among buyers, particularly in Ho Chi Minh City. It is worth noting that there is no overlap between those who selected powder and either horn/scales. i.e. for somebody who bought powder once, they didn't also buy another product in the same purchase.



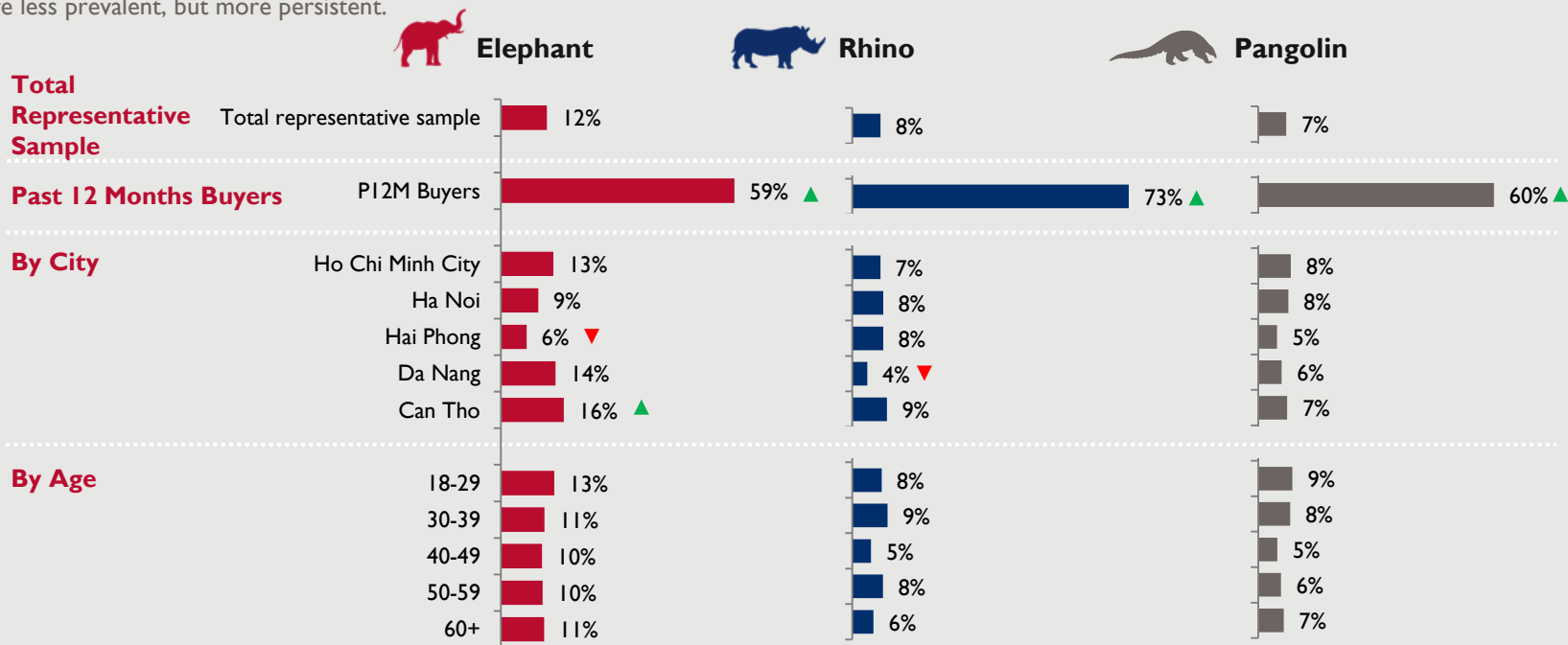
| Top 2 by City (%) | Ho Chi Minh City | Ha Noi | Hai Phong | Da Nang | Can Tho |
|-------------------|---------------------------|--|-------------|--|---|
| Elephant | Tusk 30% Tail hair 19% | Tusk 36% Sculpture/Statue 17% | *Small base | Sculpture/Statue 45% Ring (Tail hair) 21% | Tusk 22% Tusk powder 14% Bracelet 14% Ring (Tail hair) 14% |
| Rhino | Powder 41% Horn 33% | Powder 47% Horn 44% | *Small base | *Small base | *Small base |
| Pangolin | Powder 42% Scales 29% | Scales 57% Meat 13% Powder 13% Pangolin 13% | *Small base | *Small base | *Small base |

Q8a. You said that you have bought parts and/or products of the species in the past 12 months. Thinking about your last purchase, please indicate more specifically what parts or products of species you purchased. **[Open-ended question] – Weighted data**

Base: Past 12 Months Buyers – elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

Future Purchase Intention (% “Very likely” + “Likely” to purchase in the future)

Overall, 12% of the total sample intend to purchase elephant parts and/or products in the future, followed by 8% who intend to purchase rhino and 7% who intend to pangolin products. **The intention to purchase is significantly higher among the current buyers of these species**, but varies by species: 59% of the buyers intend to purchase elephant, whereas 73 percent intend to purchase again rhino in the future. I.e.: rhino buyers are less prevalent, but more persistent.

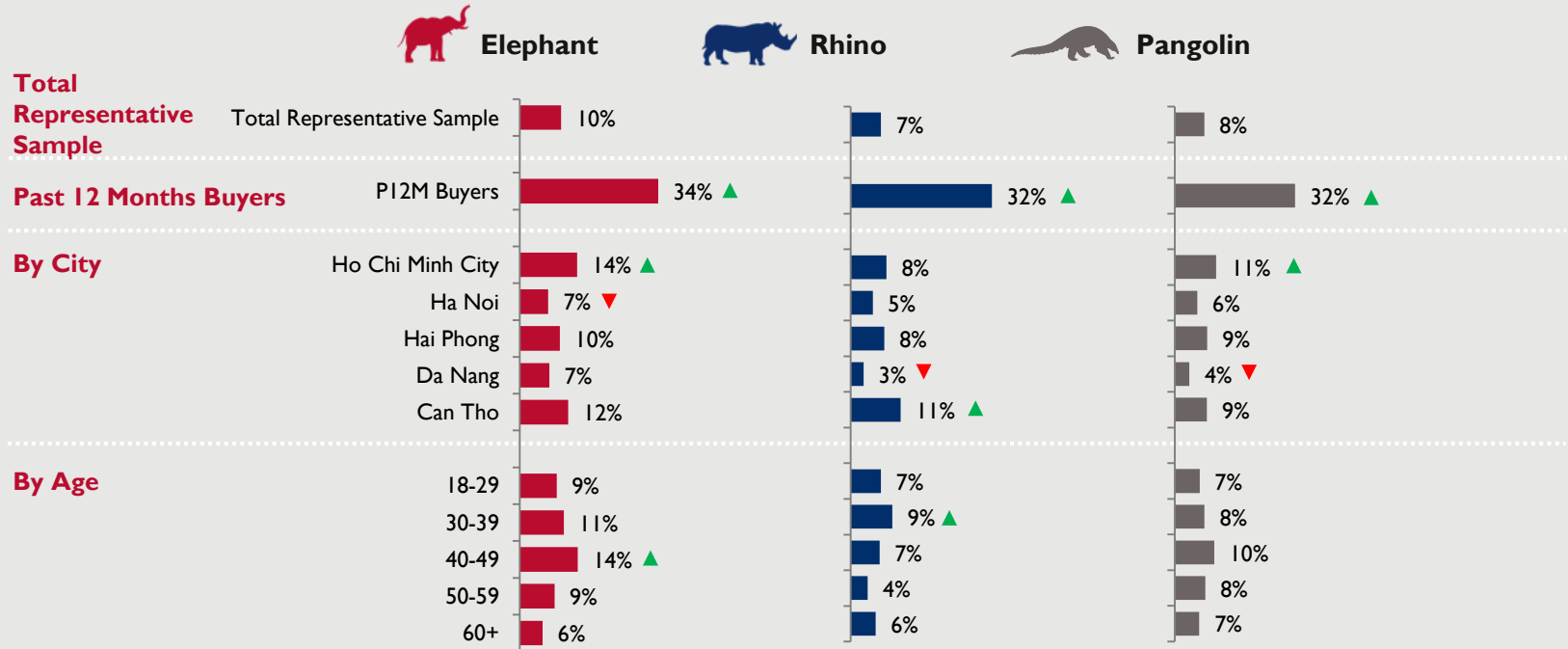


Q5. How likely will you be to purchase parts and/or products from the following species in the future? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities – Past 12 Months Buyers: elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

Acceptability (% “I find using/buying these products acceptable”)

10% of the respondents find it acceptable to buy or own elephant parts and/or products, and less than 10% find it acceptable to buy or own rhino or pangolin parts and/or products. This level of acceptability is driven significantly by recent buyers, and by respondents who live in Ho Chi Minh City for elephant and pangolin products, or in Can Tho for rhino products.



Q9. How acceptable do you find buying or using products and/or parts of the following species? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities - Past 12 Months Buyers: elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

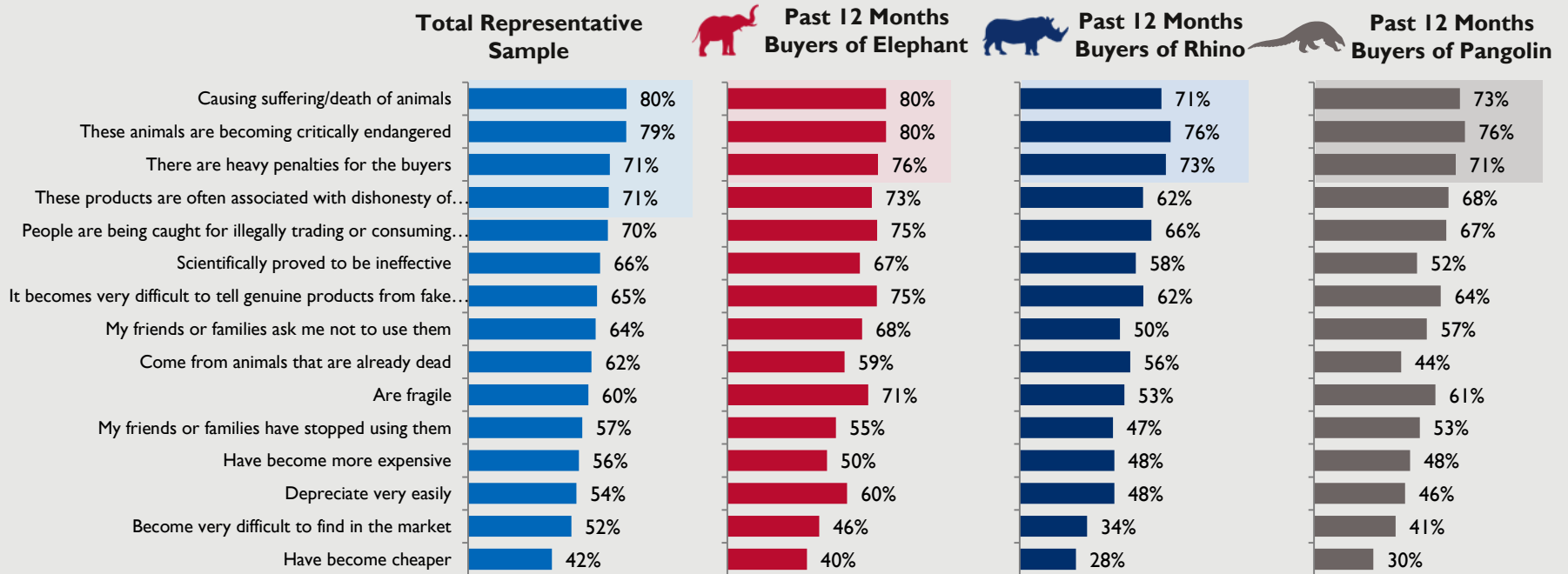
▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

Deterrents to Using Wildlife Products

Among Past 12 Months Buyers - % “Discourage me from using” + “Strongly discourage me from using”

Animal cruelty, endangered species and heavy penalties form the top three deterrents to using wildlife products for the buyers of the species surveyed.

Deterrents to Using Wildlife Products, Among...



Q11. Please indicate to which extent would the following encourage/discourage you from using endangered wildlife products in the future. – **Weighted data**

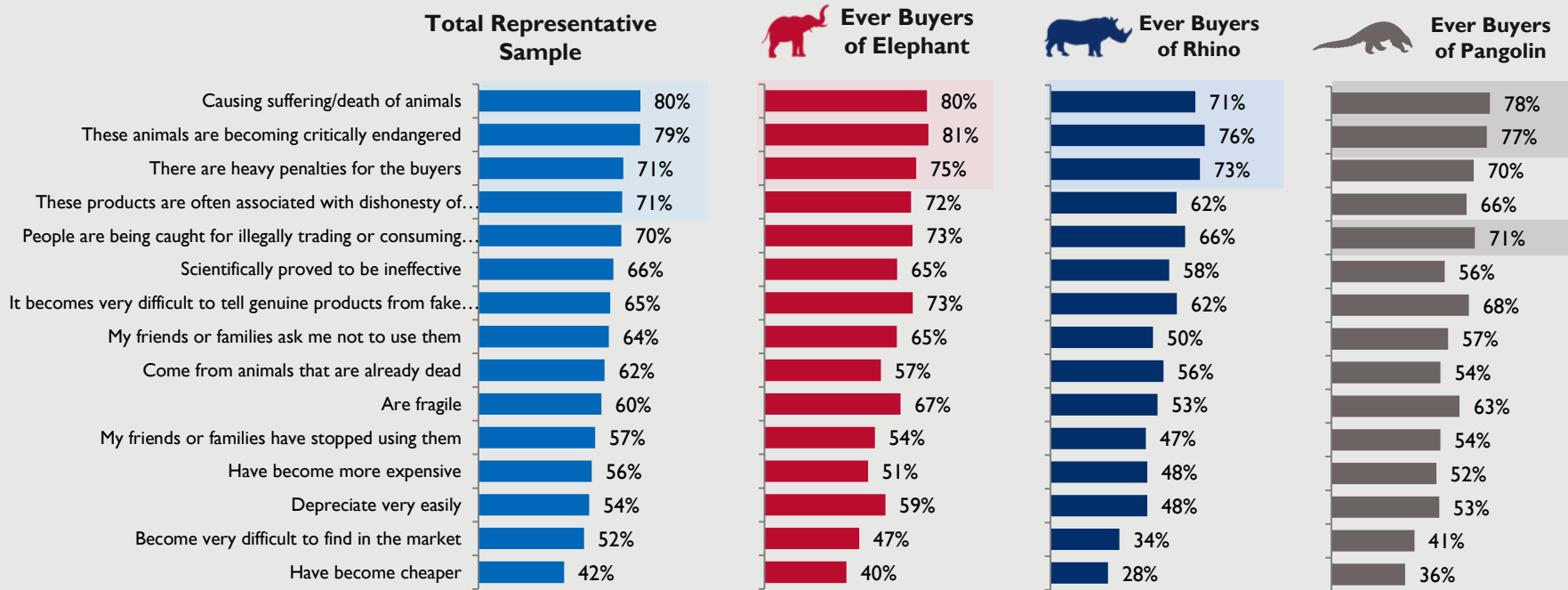
Base: Total representative sample n=1400, Past 12 Months Buyers – elephants n=181, rhino (Total sample + Booster sample) n=148, pangolin n=83

Deterrents to Using Wildlife Products

Among Ever Buyers - % “Discourage me from using” + “Strongly discourage me from using”

Much like Past 12 Months buyers, ever buyers think that animal cruelty, endangered species and heavy penalties or being caught for illegal trading are major deterrents to using wildlife products.

Deterrents to Using Wildlife Products, Among...

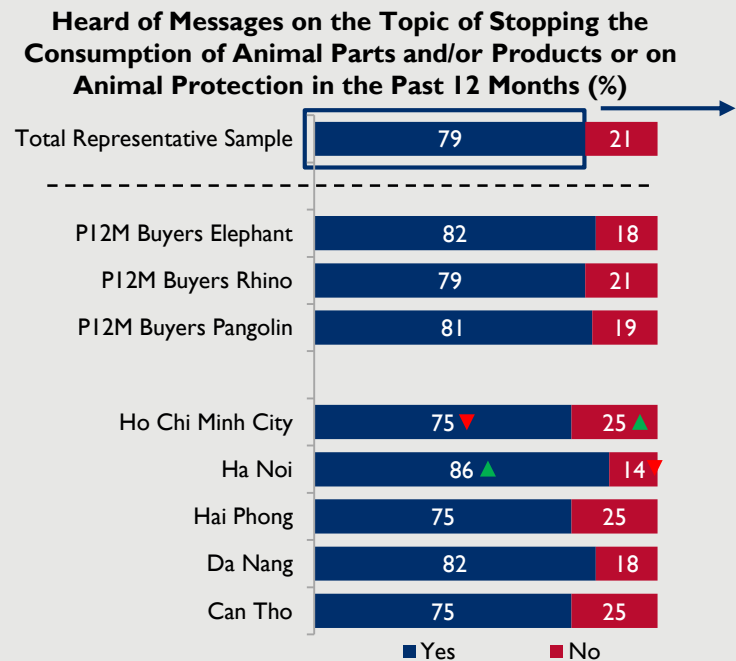


Q11. Please indicate to which extent would the following encourage/discourage you from using endangered wildlife products in the future. – **Weighted data**

Base: Total representative sample n=1400, Ever Buyers – Elephant n=263, Rhino (Total sample + Booster sample) n=242, Pangolin n=142

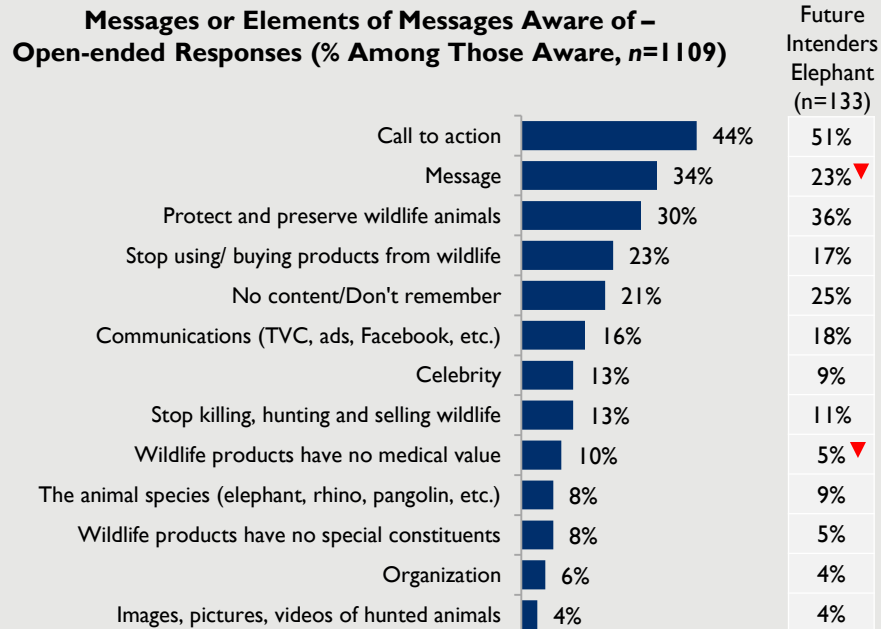
Awareness of Messages (Unprompted)

A majority of respondents claim to have heard messages on the topic of stopping the consumption of animal parts and/or products in the past 12 months, particularly in Ha Noi. However, recall is mostly centered around generic elements of messages, such as a call to action (without further details) and the protection of wildlife rather than the messages in detail.



Q20a. Have you heard or seen any messages or materials on the topic of stopping the consumption of wildlife parts and/or products, or on wildlife protection, in the past 12 months? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities (Base of Past 12 Months Buyers of rhino = Total sample + Booster sample), ▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total



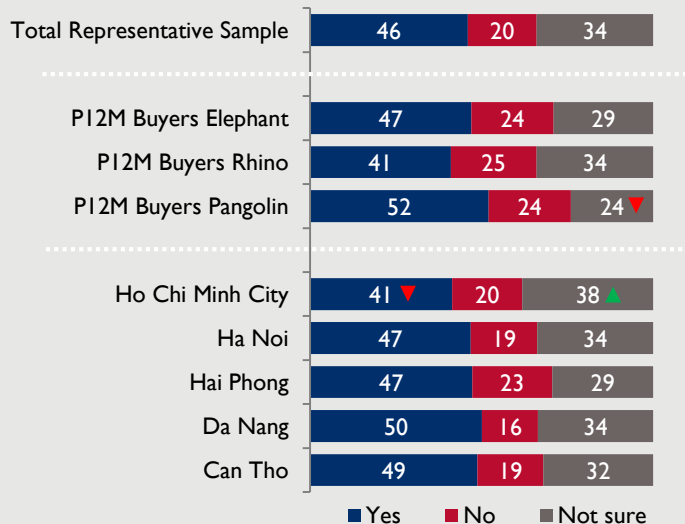
Q20b. And what do you recall seeing or hearing in these messages or materials? – **Weighted data**

Base: Aware of messages, n=1109 in five selected cities

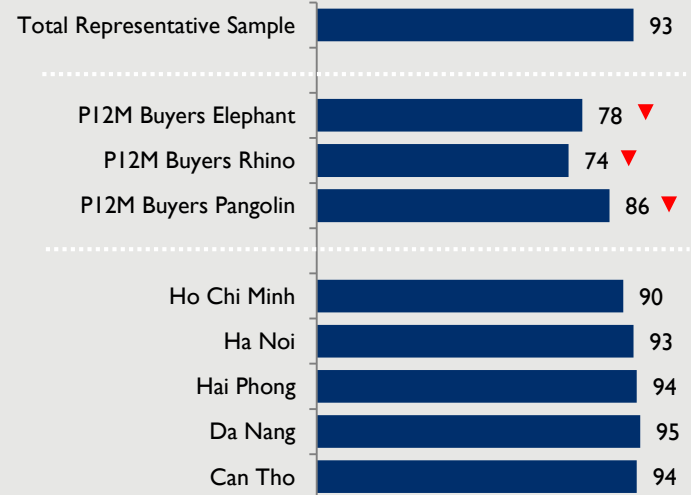
Awareness of the Revised Penal Code

When prompted (i.e., after reading a description of the law), 46% of the respondents claim to be aware of or have heard of the Revised Penal Code (effective on Jan. 2018). Once they are aware (i.e., Q21b is asked to all respondents, assuming that they were either aware in the past, or were made aware in Q21a), the vast majority agree or strongly agree with it, although significantly less buyers agree with the law vs the total representative sample.

Have you ever heard about the revision of the Penal Code? (%)



Agreement with the revision of the Penal Code (% Top-2-Box, 4 “Agree” + 5 “Strongly Agree”)



Q21a. In order to better protect endangered wildlife species, the Penal Code has been revised to better regulate wildlife crimes including hunting, catching, killing, rearing, caging, transporting and trading wildlife animals, effective on January 1, 2018. Offenders now face up to 15 years in jail and fines up to 15 billion VND for legal entities and 5 billion VND for individuals. Have you ever heard about this revision? – **Weighted data**

Q21b. How much do you agree with this revision? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities, (Base of Past 12 Months Buyers of Rhino = Total sample + Booster sample)

Summary of Findings: Elephant (I)



Profile: Who Are the Buyers of Parts and/or Products of Elephant?

- The buyers of parts and/or products of elephants have a similar gender and age profile to the general population in the five cities surveyed. However, they have a significantly **higher income**.
- In terms of behavior, they are also significantly more likely to **travel outside Vietnam** (occasionally or regularly) which is likely linked to their higher incomes.

Usage / Purchase Incidence and Intended Purchase

- **13 percent** of the respondents of the total representative sample surveyed claim to have purchased elephant parts and/or products **in the past 12 months**.
- 12 percent of the respondents also intend to purchase elephant parts and/or products in the future. Among current buyers, almost **six in ten** intend to **repeat their purchase in the future, indicating a strong and persistent demand** for elephant parts and/or products.
- It is worth noting that there is a significant overlap between usage and purchase of elephant parts and/or products, i.e., in total, 22 percent of the general population in the five cities surveyed are either buyers and/or users, and 16 percent are both Ever Buyers and Ever Users.

Ever Usage of Elephant Parts and/or Products



Past 12 Months Purchase



Future Purchase Intention (Intenders)



Future Purchase Intention, Among Past 12 Months Buyers (Repeat Buyers)



Summary of Findings: Elephant (2)

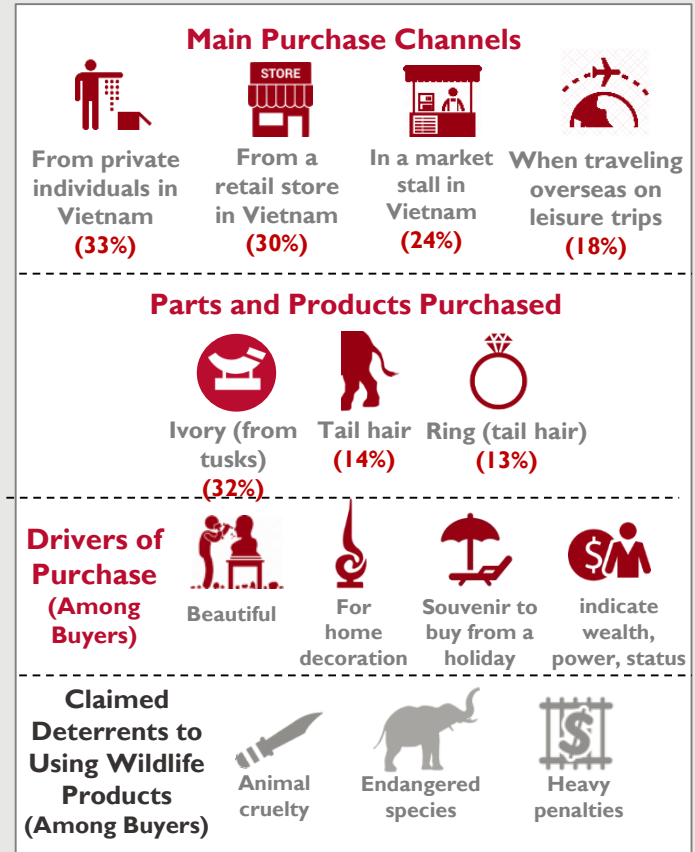


Purchase Behavior

- Elephant parts and/or products are purchased in significant proportions from private individuals and in retail stores in Vietnam. However, these products are also purchased overseas by travelers during leisure trips outside the country. Channels can overlap and are not mutually exclusive.
- Ivory is the main elephant product purchased across the cities surveyed (from tusks), followed by tail hair and ring (tail hair).
- On average, the P12M Buyers claim to have spent 18.9 million VND (approx. US\$ 815) on their last purchase. The majority of buyers (85%) are willing to pay up to 20% more than the actual (most recent) price for the same next purchase. More than half think that they should pay less or a lot less if the product comes from illegal trade.

Drivers and Potential Deterrents [Note: A **driver** is a motivating factor to a buyer, whereas a **deterrent** is an inhibiting factor to buying].

- The Past 12 Months Buyers associate more attributes with elephant products than the general population do, particularly artistic and social aspects. Among these attributes, “are beautiful,” being “good materials for home decoration,” “a good souvenir to buy from a holiday” and “indicating wealth, power, social status” are seen as highly important and are the main drivers for buyers.
- The buyers’ main deterrents are related to animal cruelty, endangered species and heavy penalties. (Note: in the qualitative survey, respondents also mentioned that peer pressure and the law/heavy penalties may deter them from buying).





Summary of Findings: Rhino (I)

Profile: Who Are the Buyers of Parts and/or Products of Rhino?

- The buyers of parts and/or products of rhino are overall younger than the general population (on average, 35.3 years old vs 38.4 years old, respectively), and are more skewed toward males and those with middle and higher incomes.
- In terms of behavior, they are significantly more likely to be (occasional or regular) travelers vs the general population in the five cities surveyed.

Usage / Purchase Incidence and Intended Purchase

- **6 percent** of the respondents claim to have purchased rhino parts and/or products **in the past 12 months**.
- 8 percent of the respondents also intend to purchase rhino parts and/or products in the future. Among current buyers, **73 percent** intend to **repeat their purchase in the future, indicating a strong and persistent demand** for rhino parts and/or products.
- There is a significant overlap between usage and purchase of rhino parts and/or products, i.e., in total, 13 percent of the general population in the five cities surveyed are either buyers and/or users, and 8 percent are both Ever Buyers and Ever Users.

Ever Usage of Rhino Parts and/or Products



Past 12 Months Purchase



Future Purchase Intention (Intenders)



Future Purchase Intention, Among Past 12 Months Buyers (Repeat Buyers)



Summary of Findings: Rhino (2)



Purchase Behavior

- Rhino parts and/or products are mainly purchased from private individuals in Vietnam. However, one in three buyers also purchase them when traveling outside Vietnam on leisure trips, particularly young people (among whom 41% buy overseas on leisure trips). Traditional Medicine Pharmacies is another common channel of purchase.
- Rhino horn and horn powder are the main parts and/or products of rhinos purchased overall. Both products were bought by different buyers, hence there was no overlap in their purchase.
- On average, the P12M Buyers claim to have spent 41.1 million VND (approx. USD\$1,765) on their last purchase. 72% of the buyers are willing to pay between 0% and 10% more than the actual price for their next purchase (of the same product). Half think that they should pay less or a lot less if the product comes from illegal trade

Drivers and Potential Deterrents [Note: A **driver** is a motivating factor to a buyer, whereas a **deterrent** is an inhibiting factor to buying].

- The Past 12 Months Rhino Buyers associate more attributes with rhinos than the general population do, particularly social and health benefits. Among these attributes, “are worth their price no matter how expensive” and “indicate wealth, power and social status” are seen as highly important and are the main drivers among buyers, i.e. highest derived importance combined with highest ‘performance’ (or agreement with the statement).
- The buyers’ main deterrents are related to endangered species, heavy penalties and animal cruelty. (Note: in the qualitative survey, respondents also mentioned that the lack of efficacy, peer pressure and the law/heavy penalties may deter them from buying).

Main Purchase Channels



From private individuals in Vietnam (44%)



When traveling overseas on leisure trips (31%)



In a TM pharmacy in Vietnam (23%)

Parts and Products Purchased & Spending



Rhino horn (41%)



Horn powder (38%)

Drivers of Purchase (Among Buyers)



Are worth their price no matter how expensive



indicate wealth, power, social status

Claimed Deterrents to Using Wildlife Products (Among Buyers)



Endangered species



Heavy penalties



Animal cruelty



Summary of Findings: Pangolin (I)

Profile: Who Are the Buyers of Parts and/or Products of Pangolin?

- The buyers of parts and/or products of pangolin are significantly more male, have higher income and are overall younger than the general population (on average, 35.8 years old vs 38.4 years old, respectively).
- They also travel significantly more regularly outside Vietnam vs the general population in the five cities surveyed.

Usage / Purchase Incidence and Intended Purchase

- **6 percent** of the respondents claim to have purchased pangolin parts and/or products **in the past 12 months**.
- 7% of the respondents also intend to purchase pangolin parts and/or products in the future, with no significant differences at city level. Among current buyers, **six in ten** intend to **repeat their purchase in the future, indicating a relatively strong and persistent demand** for pangolin parts and/or products.
- There is some overlap between usage and purchase of pangolin parts and/or products, i.e., in total, 12 percent of the general population in the five cities surveyed are either buyers and/or users, and 7 percent are both Ever Buyers and Ever Users.

Ever Usage of Pangolin Parts and/or Products



Past 12 Months Purchase



Future Purchase Intention (Intenders)



Future Purchase Intention, Among Past 12 Months Buyers (Repeat Buyers)



Summary of Findings: Pangolin (2)

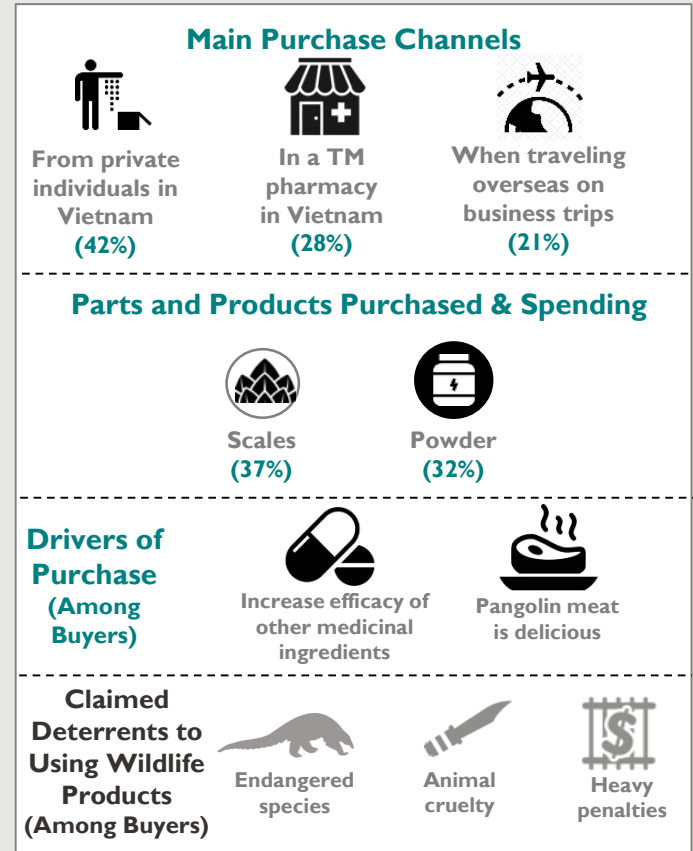


Purchase Behavior

- Pangolin parts and/or products are mainly purchased from private individuals and in TM pharmacies when purchased in Vietnam. However, 21 percent of the buyers also purchase them when traveling outside Vietnam on business trips.
- Scales and powder are the main parts and/or products of pangolins purchased overall.
- On average, the P12M Buyers claim to have spent 18.6 million VND (approx. USD\$799) on their last purchase. Two-thirds of the buyers (63%) are willing to pay between 0% and 10% more than the actual price for the next purchase (of the same product). Half think that they should pay less or a lot less if the product comes from illegal trade.

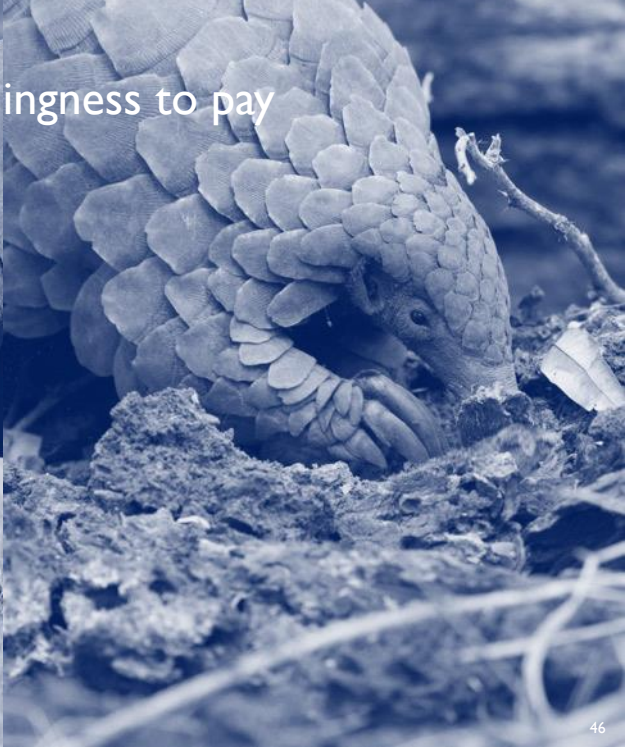
Drivers and Potential Deterrents [Note: A **driver** is a motivating factor to a buyer, whereas a **deterrent** is an inhibiting factor to buying].

- The Past 12 Months Buyers associate more attributes to pangolin than the general population do, particularly health benefits, nutritional aspects and being good for mothers when lactating.
- Among these attributes, “increase efficacy of other medicinal ingredients” is seen as highly important and is the main driver for buyers. The perception that “pangolin meat is delicious” is another important driver of usage/purchase.
- The buyers’ main deterrents are related to endangered species, animal cruelty and heavy penalties. (Note: in the qualitative survey, respondents also mentioned that peer pressure and the law/heavy penalties may deter them from buying).



3. DETAILED ANALYSIS BY SPECIES

- Buyers' Profile
- Purchase penetration & intention, products
- Purchase decision & Influencers
- Purchase channels, occasions, amount paid and willingness to pay
- Market availability
- Drivers & motivational analysis





3.1 ELEPHANTS AND IVORY



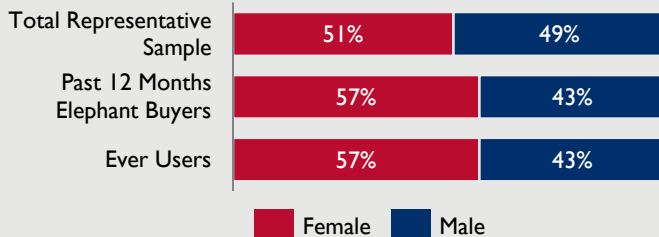
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Elephant Past 12 Months Buyers' Profile (I)

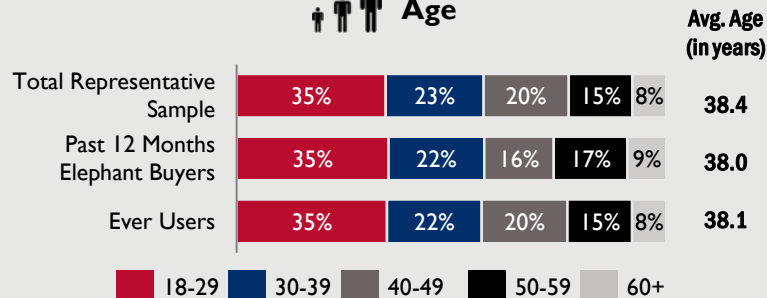


The Past 12 Months Buyers of parts and/or products of elephants have a similar gender and age profile to the general population in the five cities surveyed. However, they have a significantly higher income. Elephant buyers have a similar profile as users, although their income is slightly more polarized between low and high income.

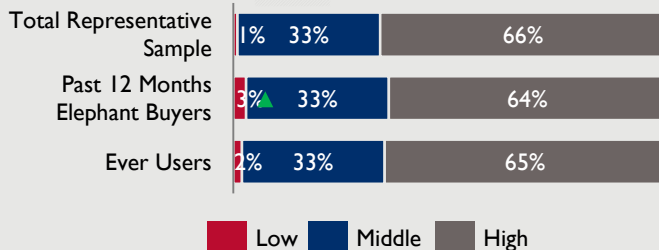
Gender



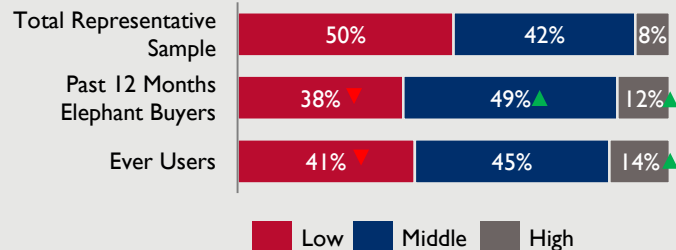
Age



Education



Income



S2. Age, S3. Gender, S4. Income, S5. Education – **Weighted data**

Base: Total representative sample, n=1400, Past 12 Months Elephant Buyers, n=181, Ever Users, n=258

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total

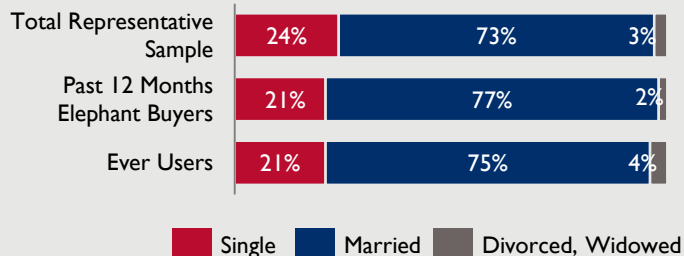
Elephant Past 12 Months Buyers' Profile (2)



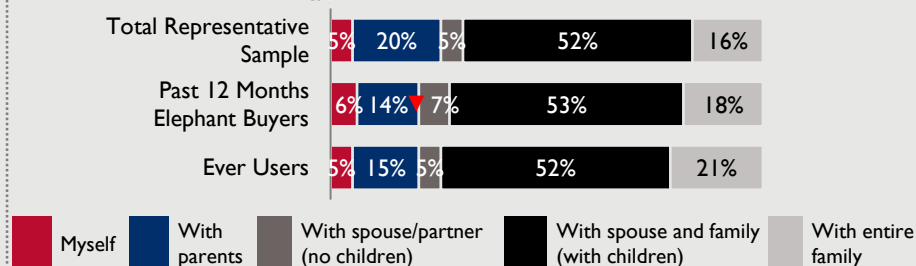
Elephant Past 12 Months Buyers are significantly more represented in Ho Chi Minh City vs in the general population in the five cities surveyed. In terms of behavior, they are also significantly more likely to travel outside Vietnam (occasionally or regularly) which is likely linked to higher incomes. The main difference between users and buyers is a smaller portion of regular travelers among users.



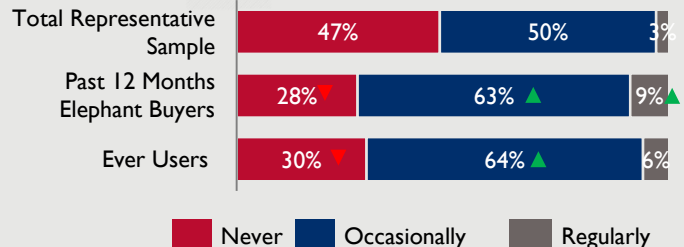
Marital Status



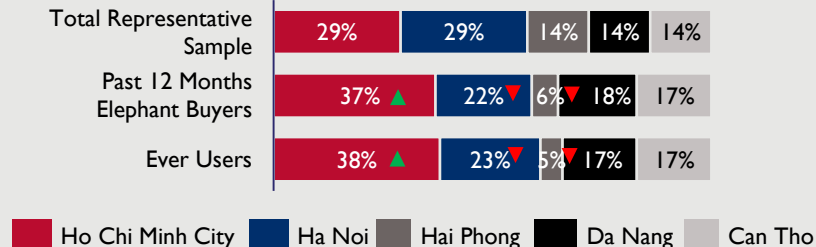
Household Composition



Travel outside Vietnam



City



Q22. Marital Status, Q23. Household Composition, Q26. Travel Overseas – **Weighted data**

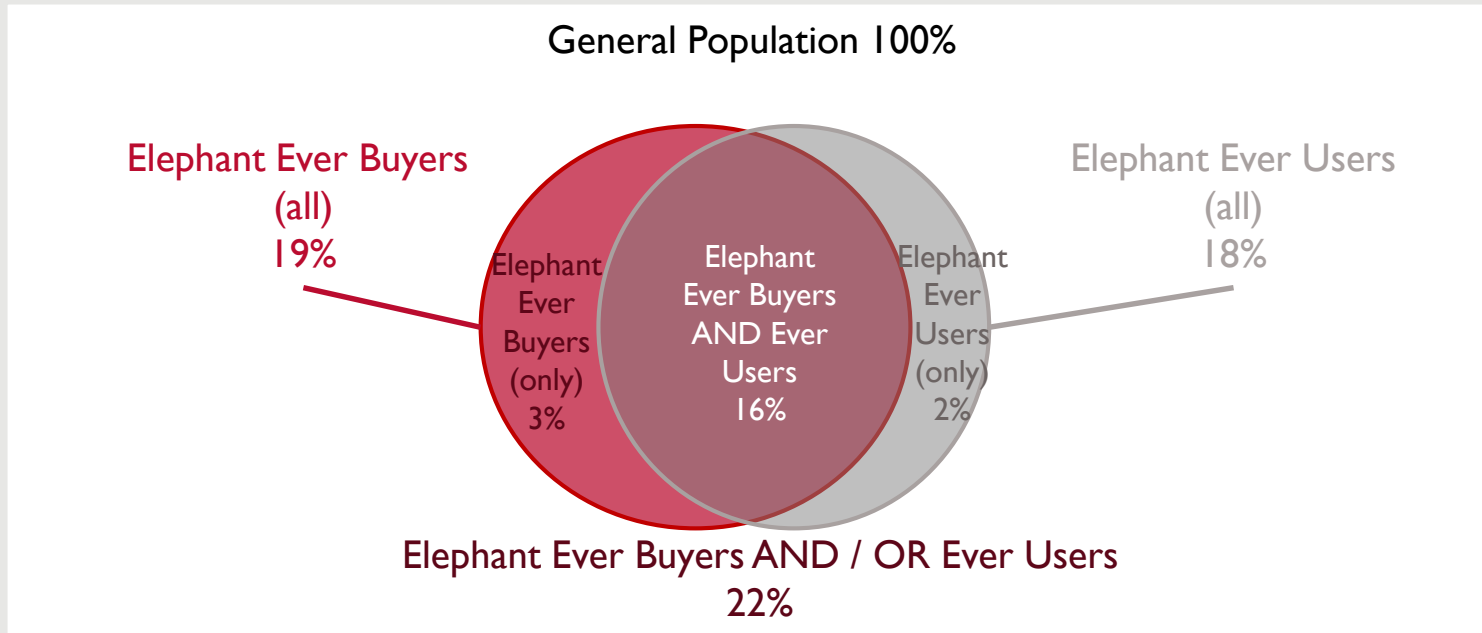
Base: Total representative sample, n=1400, Past 12 Months Elephant Buyers, n=181, Ever Users, n=258

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total

Purchase/Usage Penetration of Parts and/or Products of Elephant



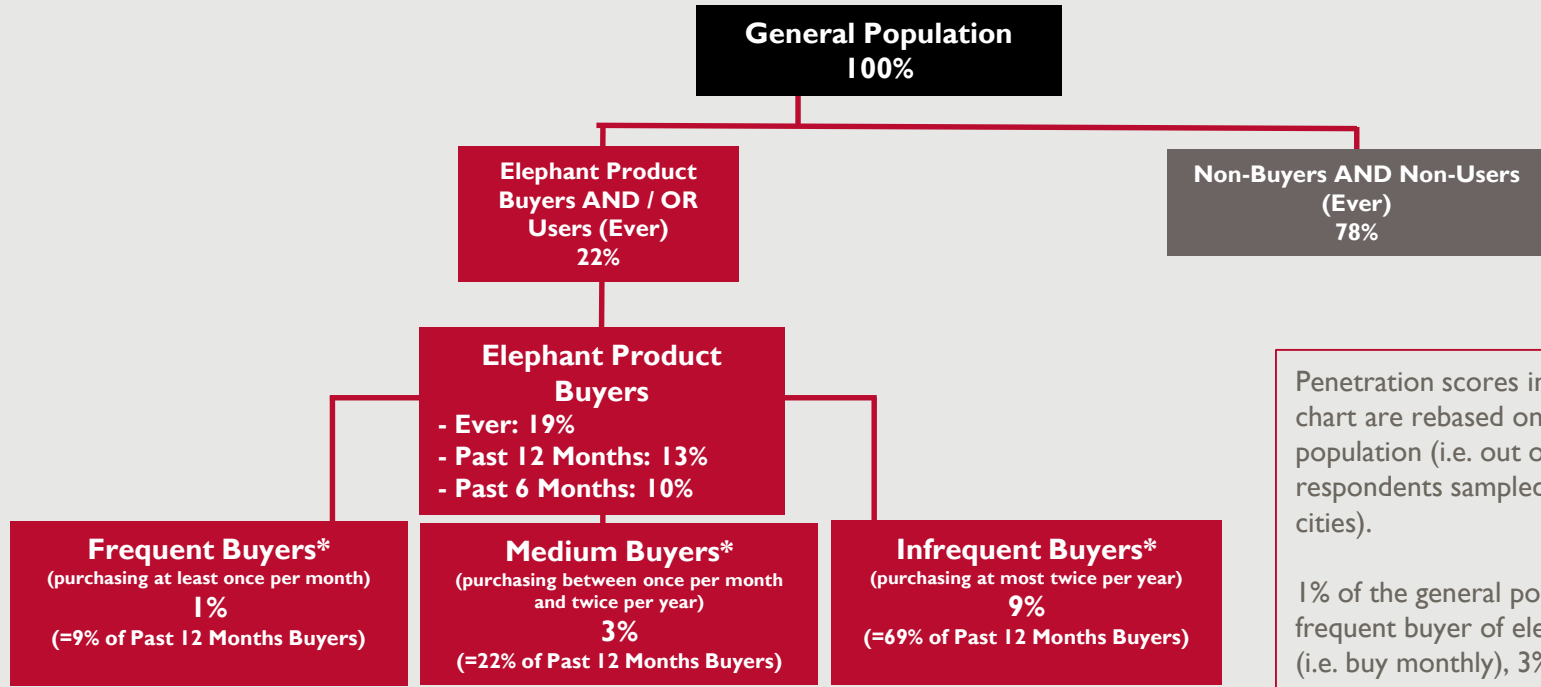
There is a significant overlap between the buyers and users of elephant parts and/or products.



Q1a, Q1b, Q2. Ever purchase, Q6. Ever usage – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

Purchase Penetration and Intention



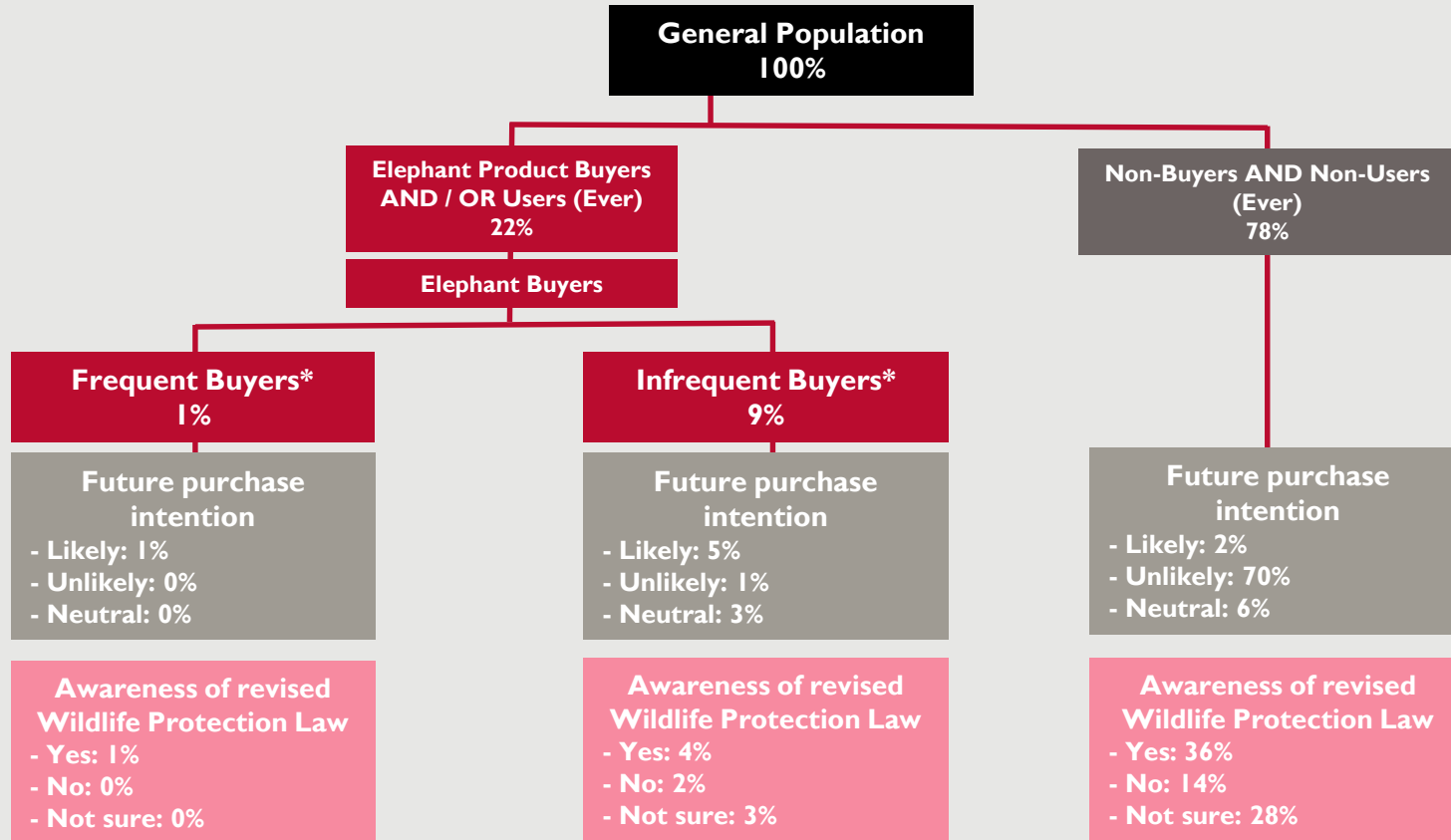
Penetration scores indicated in this chart are rebased on the general population (i.e. out of n=1,400 respondents sampled across five cities).

1% of the general population is a frequent buyer of elephant products (i.e. buy monthly), 3% have a medium frequency of purchase and 9% is infrequent (i.e. buy twice per year or less).

* The groupings of buyers by frequency includes past 12 months buyers only.



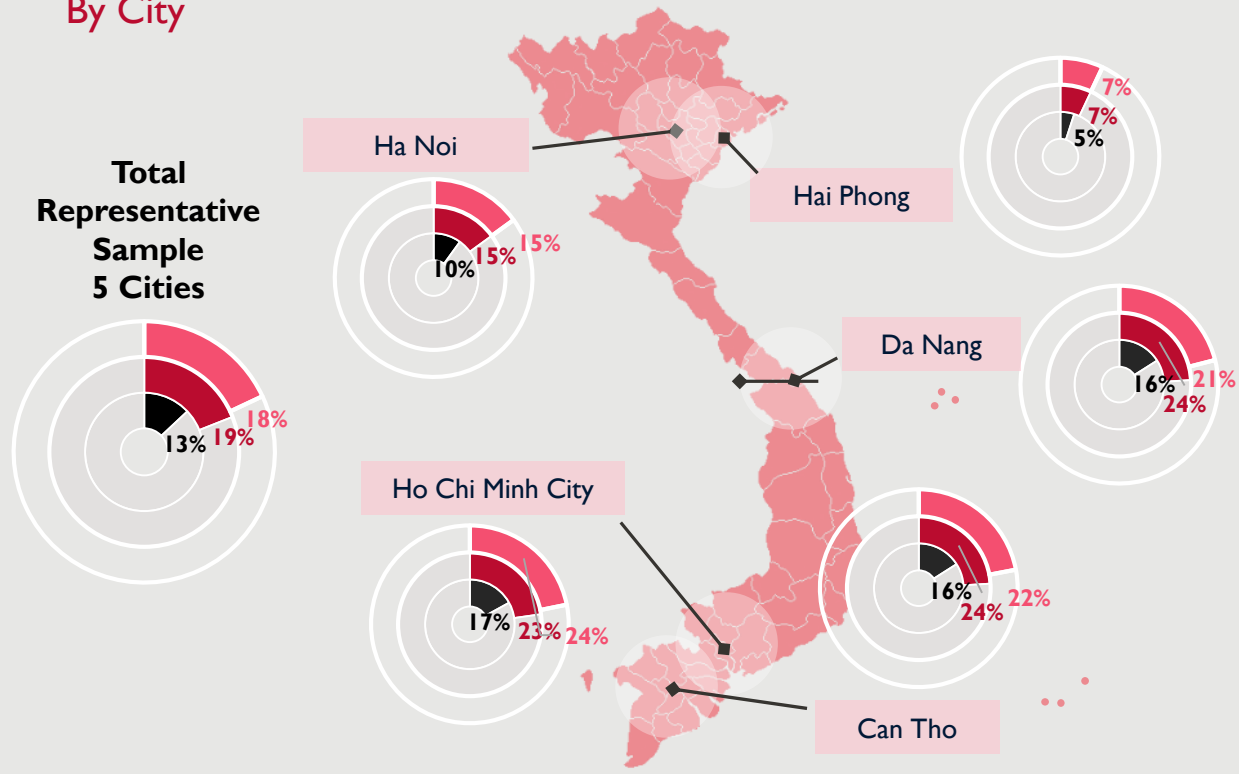
Purchase Penetration and Intention





Past Purchase/Usage of Elephant Parts and/or Products

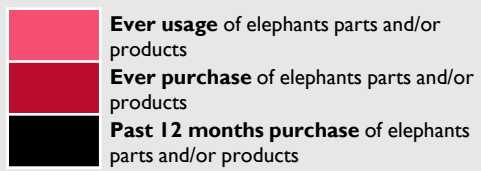
By City



Overall, 19 percent of the respondents claim to have ever purchased elephant parts and/or products, and **13 percent purchased in the past 12 months.**

Amongst the five selected cities, Ever Buyers of elephant parts and/or products are the most represented in Da Nang and Can Tho (24% in each city), and the least represented in Hai Phong (7%).

Past 12 months Buyers of elephants parts and/or products are more represented in Ho Chi Minh City



Q1a/Q1b/Q2. Ever bought, Q3. And have you bought products or parts of the following species, for yourself or someone else, in the past 12 months? – **Weighted data**
 Base: Total representative sample, n=1400 in five selected cities, n=400 in Ho Chi Minh City, n=400 in Ha Noi, n=200 in Hai Phong, n=200 in Da Nang, n=200 in Can Tho

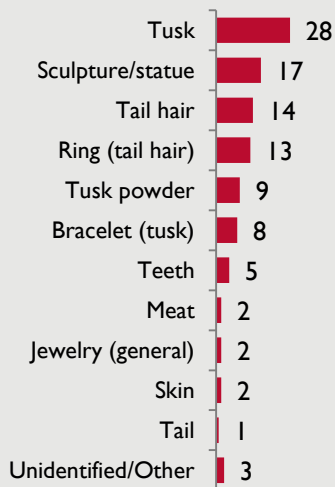


Parts and/or Products of Elephant Purchased

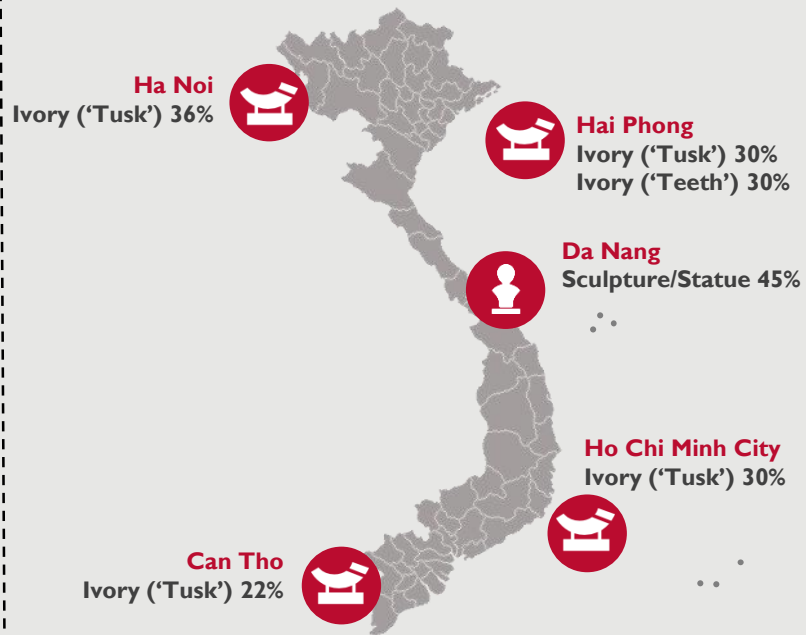
Among those who have bought elephant parts and/or products in the past 12 months

Ivory (named by respondents as elephant 'tusks' or 'teeth' in the open-ended answers) is the main part and/or product of elephants purchased overall. Ivory is the main product purchased in all cities, except for ring (tail hair) which is the most purchased elephant product in Da Nang.

Main Parts and/or Products of Elephant Purchased (% of Respondents)



Top Purchased Item by City



Q8a. Q8b. You said that you have bought parts and/or products of elephants in the past 12 months. Thinking about your last purchase, please indicate more specifically what parts or products of elephants you purchased. How many/much did you buy, and for how much? **[Open-ended question] – Weighted data**

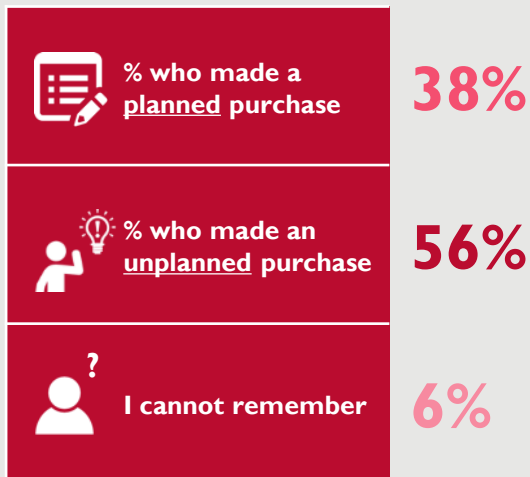
Base: Past 12 Months Elephant Buyers, n=181 in five selected cities



Purchase Decision and Influencers

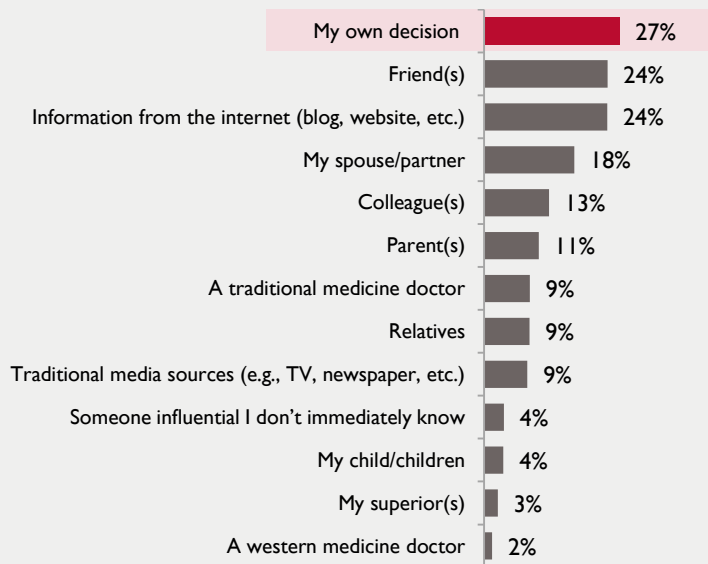
Among those who have bought elephant parts and/or products in the past 12 months

Elephant parts and/or products are more often unplanned purchases, with the purchase decision mostly made by the buyers themselves. Those who purchased based on the recommendations of others mostly relied on advice from friends and on information they found online.



Who/What had Motivated Your Purchase Decision?

(% Among those who bought elephant parts and/or products in the past 12 months)



Q13a. Please think about the last time you purchased parts and/or products from the following species. Was it a planned or unplanned decision to purchase the products? Elephant – **Weighted data**

Q13b. Thinking about this last purchase, who had motivated your purchase decision? – **Weighted data**

Base: Past 12 Months Elephant Buyers, n=181 in five selected cities



Purchase Channels – Elephant Products and/or Parts

Among those who have bought elephant parts and/or products in the past 12 months

Elephant parts and/or products are mainly purchased from private individuals and in retail stores. Main purchase channel differs per city: In Ha Noi, one in three buyers purchase them when traveling outside Vietnam on leisure trips, while retail stores are the main channel in Da Nang and Can Tho. Buyers with higher incomes purchase these products significantly more when traveling overseas (both for business and leisure) and are also those who use the highest average number of channels.

Purchase Channels (% of Respondents)



Avg. # of channels: 1.7

| Users/Intenders | | City | | | | | Gender | | Age | | | Income | | |
|-----------------|------------|------------|------------|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ever Users | Intenders | HCMC | Ha Noi | Hai Phong | Da Nang | Can Tho | Female | Male | 18-29 | 30-49 | 50+ | Low | Middle | High |
| n=171 | n=106 | n=66 | n=41 | n=11* | n=32 | n=32 | n=104 | n=78 | n=64 | n=70 | n=47 | n=69 | n=89 | n=23 |
| 34 | 34 | 39 | 31 | | 30 | 33 | 29 | 40 | 40 | 31 | 27 | 30 | 32 | 52 |
| 31 | 32 | 24 | 28 | | 40 | 39 | 31 | 27 | 32 | 31 | 25 | 35 | 23 | 39 |
| 24 | 23 | 26 | 19 | | 24 | 18 | 23 | 25 | 19 | 24 | 31 | 20 | 25 | 30 |
| 19 | 21 | 16 | 33▲ | | 9 | 11 | 29 | 40 | 22 | 17 | 16 | 13 | 14 | 51▲ |
| 16 | 14 | 16 | 24 | | 6 | 22 | 12 | 22 | 17 | 19 | 13 | 13 | 22 | 9 |
| 14 | 17 | 16 | 24 | *Small base n<20 | 6 | 7 | 13 | 17 | 19 | 13 | 12 | 11 | 11 | 39▲ |
| 10 | 10 | 11 | 10 | | 3 | 14 | 11 | 9 | 13 | 10 | 8 | 11 | 11 | 5 |
| 9 | 11 | 6 | 15 | | 3 | 18 | 7 | 12 | 12 | 10 | 4 | 9 | 7 | 18 |
| 7 | 5 | 10 | 5 | | 3 | 7 | 6 | 8 | 6 | 6 | 8 | 9 | 5 | 4 |
| 4 | 5 | 3 | 7 | | 3 | 0 | 2 | 7 | 5 | 6 | 0 | 4 | 3 | 4 |
| 1.7 | 1.7 | 1.7 | 2.0 | | 1.4 | 1.7 | 1.5 | 1.9 | 1.9 | 1.7 | 1.4 | 1.5 | 1.6 | 2.5 |

Q12. Where did you purchase products and/or parts of elephants? – **Weighted data**

Base: Past 12 Months Elephant Buyers, n=181 in five selected cities

▲▼ Statistically significant difference: **green** / **red** at 95 confidence level vs Total – *Small base: n<20

Top purchase channel

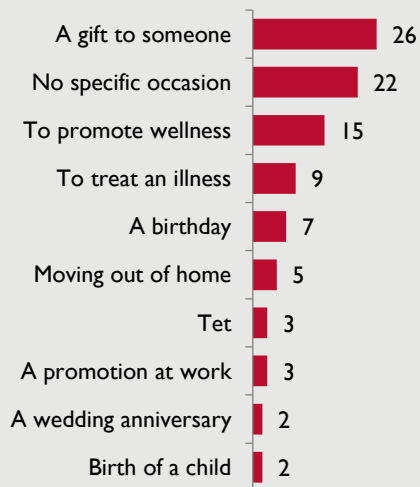


Purchase Occasions

Among those who have bought elephant parts and/or products in the past 12 months

Parts and/or products of elephants are most often purchased for gifting occasions, but also for no specific occasion (i.e., mostly for the buyer's own usage, such as home decoration, to use as a jewelry, etc.).

Top 10 Purchase Occasions (% of Buyers)



| Users/Intenders | City | | | | | | Gender | | Age | | | Income | | | |
|-----------------|------------|-----------|------|--------|---------------------|---------|---------|--------|------|-------|-------|--------|------|--------|------|
| | Ever Users | Intenders | HCMC | Ha Noi | Hai Phong | Da Nang | Can Tho | Female | Male | 18-29 | 30-49 | 50+ | Low | Middle | High |
| n=171 | n=106 | n=66 | n=41 | n=11* | n=32 | n=32 | n=104 | n=78 | n=64 | n=70 | n=47 | n=69 | n=89 | n=23 | |
| | 26 | 22 | 29 | 17 | | 31 | 21 | 22 | 33 | 30 | 21 | 29 | 26 | 28 | 21 |
| | 23 | 20 | 21 | 19 | | 30 | 25 | 24 | 20 | 25 | 27 | 12▼ | 33▲ | 17 | 13 |
| | 14 | 16 | 16 | 24 | | 3 | 18 | 14 | 17 | 15 | 21 | 8 | 14 | 16 | 14 |
| | 9 | 8 | 6 | 14 | | 3 | 11 | 10 | 7 | 13 | 7 | 6 | 6 | 10 | 13 |
| | 7 | 10 | 6 | 5 | *Small base n<20 | 15 | 7 | 9 | 4 | 8 | 3 | 12 | 7 | 8 | 4 |
| | 5 | 4 | 3 | 9 | | 6 | 4 | 5 | 4 | 1 | 5 | 8 | 4 | 6 | 4 |
| | 3 | 6 | 6 | 2 | | 0 | 4 | 2 | 5 | 5 | 1 | 4 | 0 | 3 | 13 |
| | 3 | 4 | 4 | 2 | | 3 | 4 | 4 | 3 | 1 | 6 | 2 | 1 | 4 | 4 |
| | 2 | 4 | 1 | 0 | | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 1 | 3 | 0 |
| | 2 | 3 | 1 | 5 | | 0 | 3 | 3 | 1 | 0 | 2 | 6 | 3 | 0 | 9 |
| | 2 | 0 | 4 | 0 | | 0 | 0 | 2 | 1 | 0 | 3 | 2 | 1 | 2 | 0 |

Top purchase occasion

Q14. Thinking again about the last purchase, what was this purchase meant for? – **Weighted data**

Base: Past 12 Months Elephant Buyers, n=181 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95 confidence level vs Total – *Small base: n<20

Amount paid and willingness to pay more

Among those who have bought / used elephant parts and/or products in the past 12 months

Note: price measurements of (partly) illegal products can provide inconsistent results and have to be reviewed with caution.

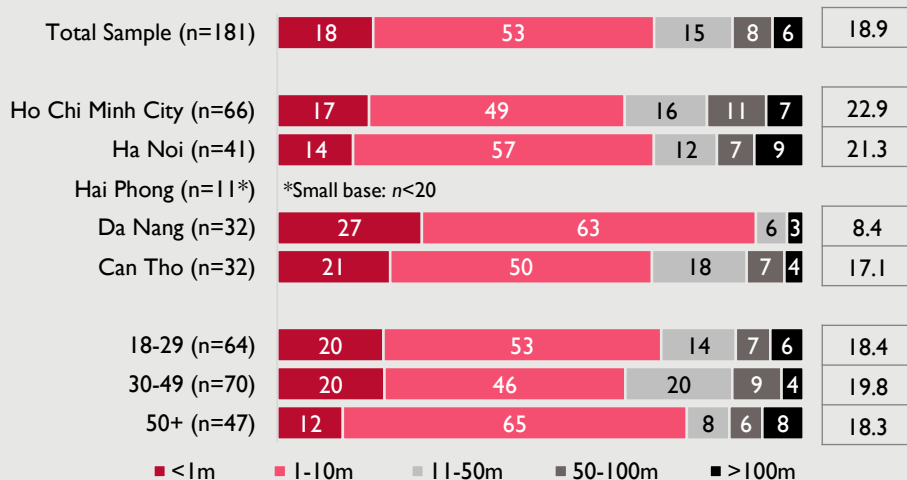


On average, the past 12 Months Buyers claim to have spent 18.9 million VND (approx. US\$ 815) on their last purchase of parts and/or products of elephant. This amount is highest in HCMC (22.9 million VND = \$985) and lowest in Da Nang (8.4 million VND = \$360). Overall, the majority of buyers (85%) are willing to pay up to 20% more than the actual (most recent) price for the same next purchase.

Money Spent on Last Purchase (VND)

(% of Buyers)

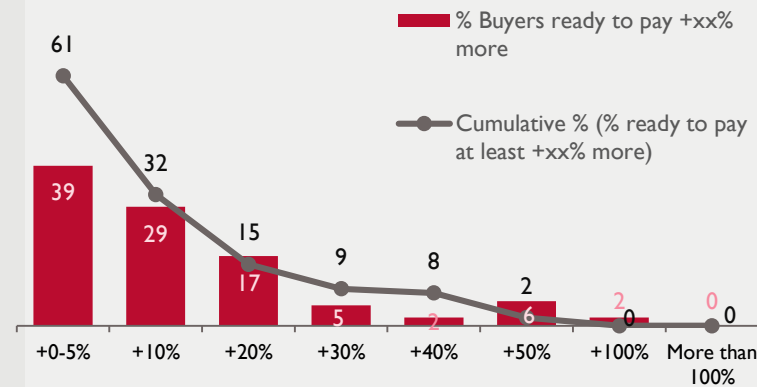
Average spent
(in million VND)



How Much More Would You Consider Paying?

(% of Buyers)

Average % ready to pay more: 15.1%



Q8c. You said that you have bought parts and/or products of elephants in the past 12 months. Thinking about your last purchase, how many/much did you buy, and for how much? – **Weighted data**

Q16a. Thinking about your last purchase, how much more would you consider to pay in order to buy that item? – **Weighted data**

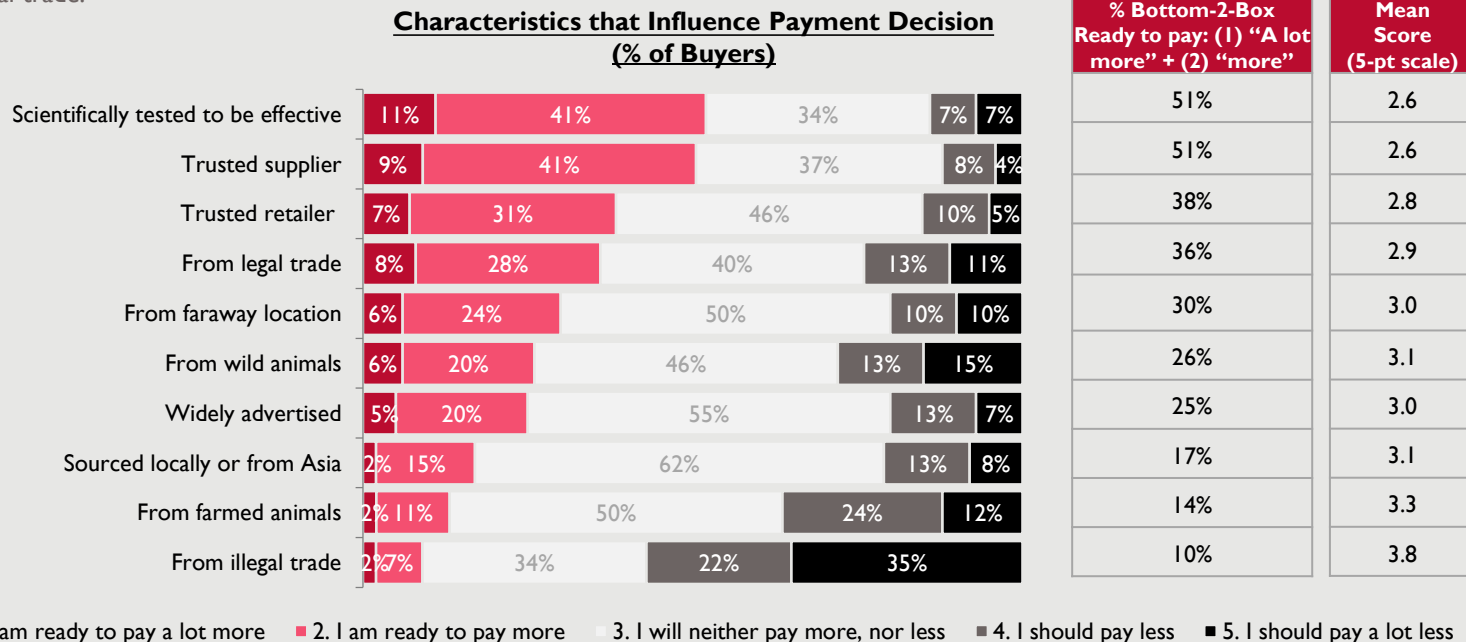
Base: Past 12 Months Elephant Buyers, n=181 in five selected cities, *Small base: n<20



Willingness to pay more for specific product attributes

Among those who have bought /used elephant parts and/or products in the past 12 months

Half of the buyers and/or users of parts and/or products of elephant are ready to pay more if the product's efficacy is scientifically tested or if it comes from a trusted supplier. On the other hand, more than half think that they should pay less or a lot less if the product comes from illegal trade.



Q15a. You said that you bought/used/may buy parts and/or products of elephants, to which extent do the following characteristics influence your payment decision? – **Weighted data**

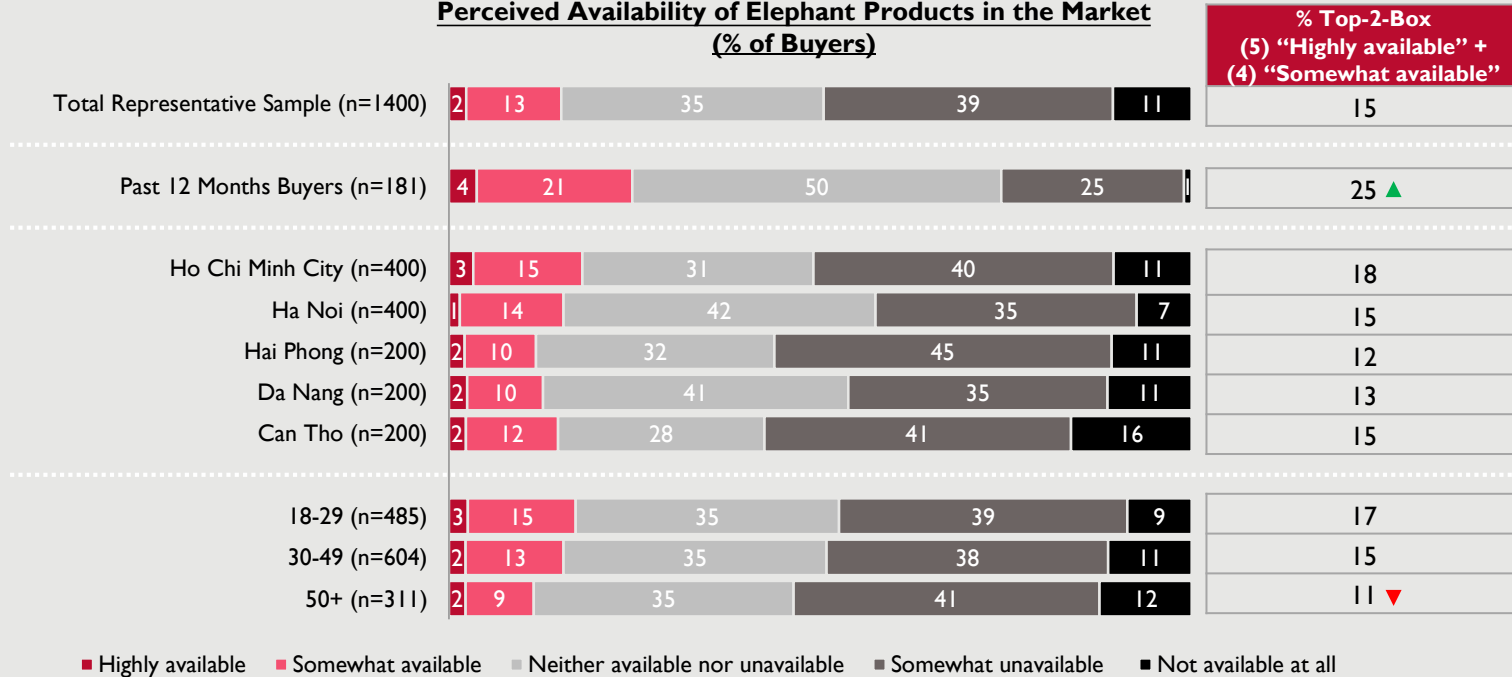
Base: Elephant ever buyers and/or ever users and/or intenders, n= 419 in five selected cities

Market Availability



Overall, elephant parts and/or products are perceived difficult to get. Even among buyers, only one in four agrees that these products are highly or somewhat available.

Perceived Availability of Elephant Products in the Market
(% of Buyers)



Q18.To which extent are products and/or parts of the following species available to buy/find in Vietnam? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)

Drivers and Narrative Analysis



As explained earlier, we have deployed a **Drivers Analysis Methodology, to identify the motives of future purchase.** A drivers analysis yields importance scores in a derived manner by measuring the impact of attributes on critical performance metrics, such as overall satisfaction, likelihood to purchase again in the future, likelihood to recommend purchase or some combination of those.

The next pages visualize the output of the drivers analysis for the general population and for the past 12 month buyers.

The color of the dots in the matrix indicates the quadrant in which the associated attribute is located. FI: The red dots indicate all attributes which are rated as important and that are strongly associated with elephant parts/products. (see quadrant definition on the map).

This is followed by a **Narrative Analysis, to reveal attitudes and motivations.** A narrative is a message, theme or story. The communication of a narrative may change attitudes and behavior toward purchasing wildlife. Narratives can be used in developing content for communication campaigns and sending the right messages to the right group of consumers.

The narratives exist in the form of numeric scales that reflect respondents' stances or attitudes toward a particular narrative. The higher the score, the stronger the agreement with the narrative. Negative scores indicate disagreement with the narrative, and its rejection. The acceptance of specific narratives may vary across different demographic groups and geographies.

People's decisions and behaviors are underlined by narrative frames that explain and justify them and we identified stable combinations of attitudes, perceptions and motivations that exist in people's minds when they think about specific wildlife products or explain their attraction to them. Narratives can be interpreted as drivers/motivators or deterrents.

Combining drivers and narrative analysis output provide valuable input for intervention campaigns and should be further explored and acted upon when designing these campaigns.

Drivers Analysis – Among the General Population



Importance of different attributes vs performance on these attributes of elephant parts and/or products

- Overall, **the general population** in the five cities surveyed mostly associate elephant products (i.e., ivory) with its intrinsic values, i.e., rarity and beauty. However, rarity is not seen as important for a product among these respondents, while beauty is also not the most important. Hence, these characteristics associated with elephant products are unlikely to drive the general population to use or purchase them.
- Being a good souvenir to buy from a holiday, bringing good Fengshui, being good materials for home decoration and indicating wealth/social status are highly important and strongly associated with elephant products, hence they represent potential drivers of purchase among the general population.**
- It is worth noting that other attributes such as being good for building business relationships and ideal to pass on the future generations are important as well, but are not as strongly associated with elephant products.

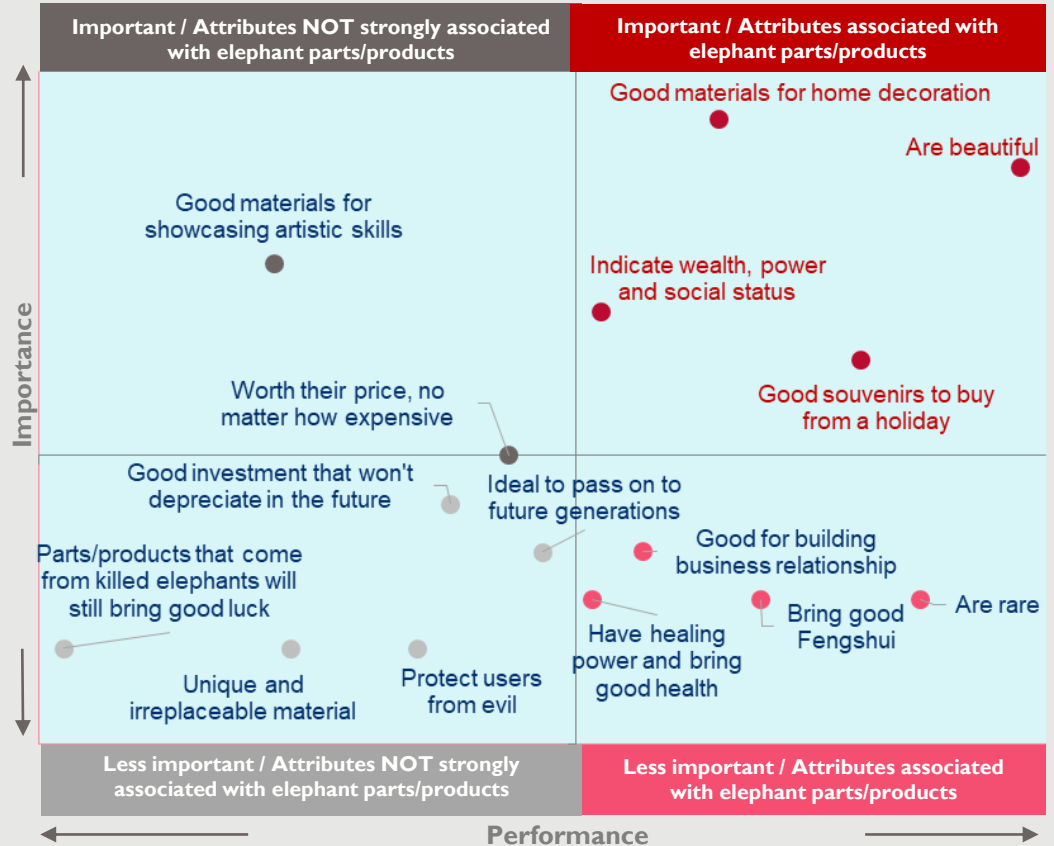


Drivers Analysis – Among Past 12 Months Buyers

Importance of different attributes vs performance on these attributes of elephant parts and/or products



- The **Past 12 Months Buyers** associate more attributes with elephant products than the general population do, particularly the artistic and social aspects.
- Among these attributes, **“are beautiful,”** being **“good materials for home decoration,”** **“a good souvenir to buy from a holiday”** and **“indicating wealth, power, social status”** are seen as highly important and are the main drivers for buyers.
- Being **“rare,”** **“bringing good Fengshui,”** being **“good for building business relationships”** and having **“healing power,”** although strongly associated with elephant products, are less likely to drive purchase as they are perceived to be less important.
- It is worth noting that other attributes such as being **“good materials for showcasing artistic skills”** are important as well but are not strongly associated with elephant products by buyers, and hence represent secondary drivers of purchase.



Statement Groupings and Narratives for Elephant



Narrative Analysis for Elephant (to reveal attitudes and motivations)

People's decisions and behaviors are underlined by narrative frames that explain and justify them. Using **structural modeling (Principal Component Analysis)**, we identified stable combinations of attitudes, perceptions and motivations that exist in people's minds when they think about specific wildlife products or explain their attraction to them. Narratives could be interpreted as drivers/motivators or deterrents. The narratives for elephant are designed based on the following groups of statements, all indicating a **plus** score, i.e., agreement with the respective statement:

Statement groupings

| | | | | | | | | | |
|---|-------|--|-------|---|-------|--|-------|----------|-------|
| Are good for building business relationships | 0.717 | Are beautiful | 0.721 | Are a unique and irreplaceable material | 0.740 | Parts that come from killed elephants will still bring good luck | 0.818 | Are rare | 0.911 |
| Have healing power and bring good health | 0.688 | Are good materials for home decoration | 0.654 | Are good materials for showcasing artistic skills | 0.580 | Protect users from evil | 0.539 | | |
| Are worth their price, no matter how expensive | 0.645 | Are good souvenirs to buy from a holiday | 0.641 | | | | | | |
| Are a good investment that won't depreciate in the future | 0.640 | | | | | | | | |
| Bring good Fengshui | 0.603 | | | | | | | | |
| Are ideal to pass on to future generations | 0.591 | | | | | | | | |
| Indicate wealth, power and social status | 0.526 | | | | | | | | |

Narratives

| | | | | |
|--|---|---|---|---|
| <p><u>Narrative 1: Investment and social</u> Elephant parts or products have a high investment value and various benefits: they are worth their price while being good for building business relationships, they have a social role by indicating wealth/social status and I believe that they bring good health.</p> | <p><u>Narrative 2: Beauty</u> Elephant parts or products are beautiful materials, nice to use as home decoration and are also good to buy as a souvenir.</p> | <p><u>Narrative 3: Uniqueness and artistic value</u> Elephant parts or products are unique materials with high artistic value.</p> | <p><u>Narrative 4: Good luck</u> I believe that even parts or products that come from killed elephants will bring good luck, and I know for a fact that it protects from evil.</p> | <p><u>Narrative 5: Rarity</u> Elephant parts or products are rare.</p> |
|--|---|---|---|---|

Motivational Narratives Analysis – Elephant



Definition of Labels and Narratives

| Sub-group | Label (in the map) | Sub-group | Label (in the map) |
|------------------|--------------------|-------------------------------|--------------------|
| Ho Chi Minh City | HCMC | Female | Female |
| Ha Noi | Ha Noi | Male | Male |
| Hai Phong | Hai Phong | Past 12 Months Buyers | P12M Buyers |
| Da Nang | Da Nang | Ever Users | Ever Users |
| Can Tho | Can Tho | Future Purchase Intenders | Intenders |
| 18-29 years old | 18-29 | Future Purchase Non-intenders | Non-Intenders |
| 30-39 years old | 30-39 | | |
| 40-49 years old | 40-49 | Frequent Buyers | Frequent Buyers |
| 50-59 years old | 50-59 | | |
| 60-69 years old | 60-69 | Infrequent Buyers | Infrequent Buyers |

Narratives

Nar1: Elephant parts or products have a high investment value and various benefits: they are worth their price while being good for building business relationships, they have a social role by indicating wealth/social status and I believe that they bring good health.

Nar2: Elephant parts or products are beautiful materials, nice to use as home decoration and are also good to buy as a souvenir.

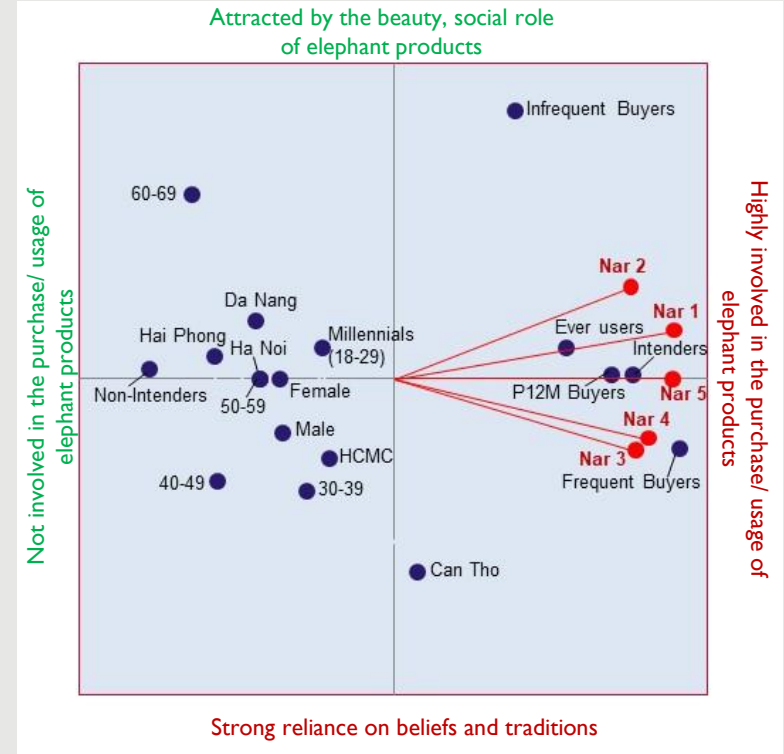
Nar3: Elephant parts or products are unique materials with high artistic value.

Nar4: I believe that even parts or products that come from killed elephants will bring good luck, and I know for a fact that it protects from evil.

Nar5: Elephant parts or products are rare.

Q17a. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of elephants. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**



Motivational Narratives Analysis – Elephant



Analysis

- Overall, the Past 12 Months Buyers, Ever Users and Intenders are much more related to all the narratives (i.e., they give higher ratings to all these narratives) than the other sub-groups.
- Users relate slightly more to Narratives 1 and 2 (strongly focused on the beauty, social role and on perceived benefits of owning elephant products), while Buyers and Intenders are closest to Narrative 5, indicating rarity.
- Narrative 4, which indicates strong reliance to traditions and beliefs, and a lack of concern for animal cruelty, and Narrative 3, which indicates uniqueness and artistic value, are a strong mindset particularly shared by the most frequent buyers.
- While planning communication campaigns in Can Tho and HCMC, Narratives 3 and 4 should be effectively countered by communicating messages on legality/penalties, but also by showing that the beliefs related to these products are incorrect.**

Narratives

Nar1: Elephant parts or products have a high investment value and various benefits: they are worth their price while being good for building business relationships, they have a social role by indicating wealth/social status and I believe that they bring good health.

Nar2: Elephant parts or products are beautiful materials, nice to use as home decoration and are also good to buy as a souvenir.

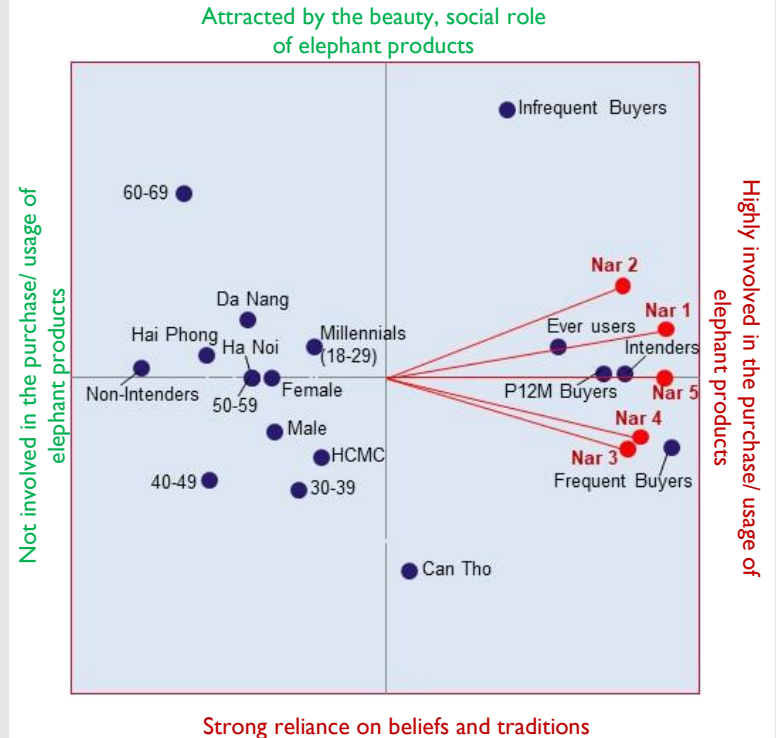
Nar3: Elephant parts or products are unique materials with high artistic value.

Nar4: I believe that even parts or products that come from killed elephants will bring good luck, and I know for a fact that it protects from evil.

Nar5: Elephant parts or products are rare.

Q17a. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of elephants. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

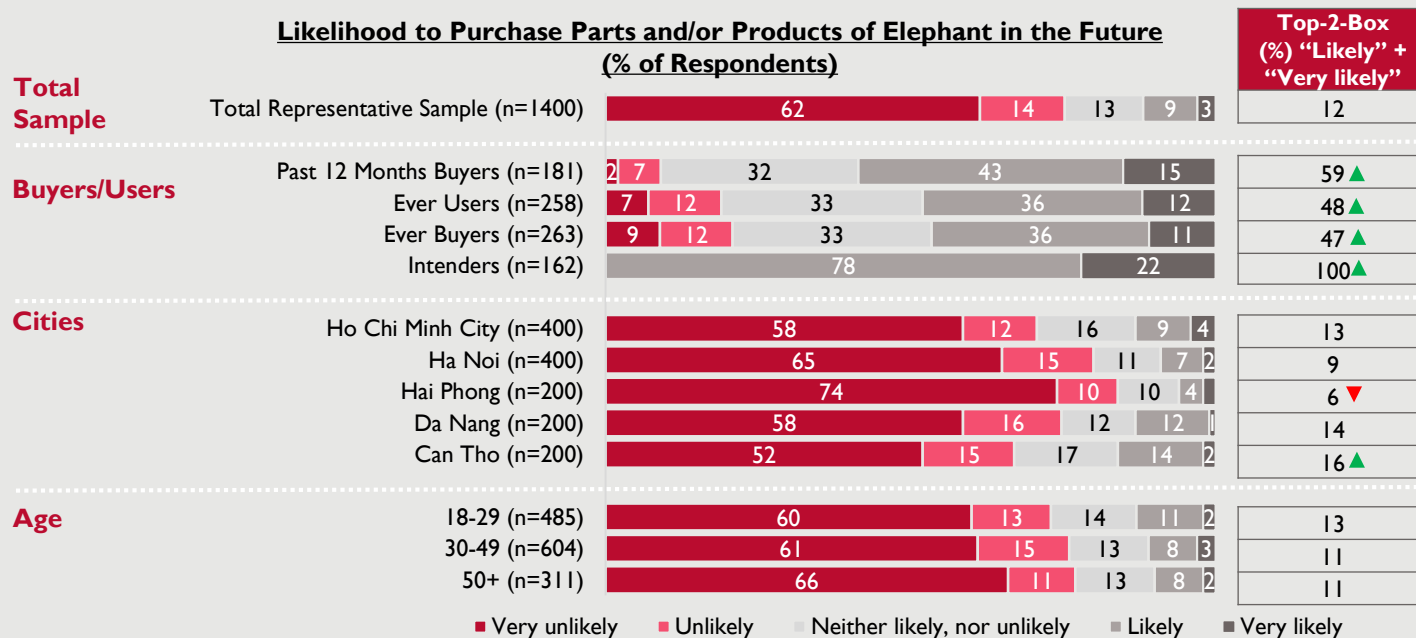
Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**



Future Purchase Intention



12% of the respondents intend to purchase elephant parts and/or products in the future. Among current buyers, 59% intend to repeat their purchase in the future, indicating a relatively strong demand for elephant parts and/or products among this group.



Q5. How likely will you be to purchase parts and/or products from the following species in the future? – Elephant – **Weighted data**

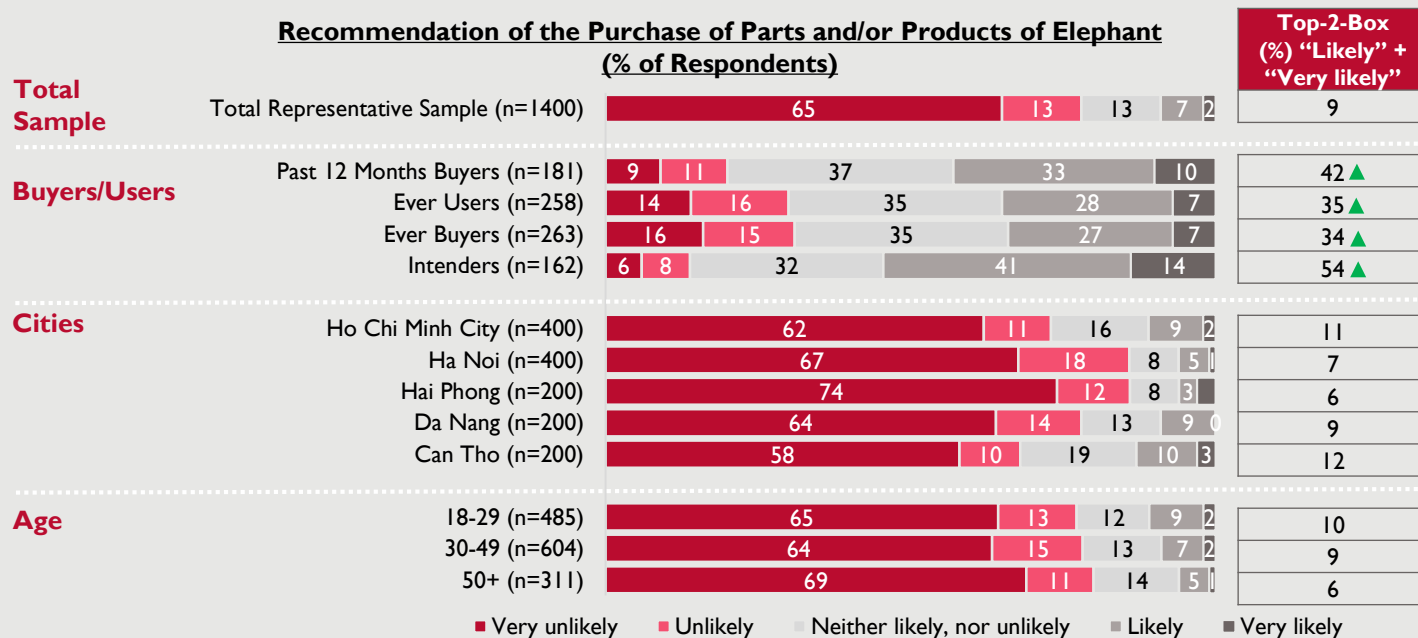
Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)

Recommendation



Overall, the intention to recommend purchasing parts and/or products of elephant is positively correlated with the intention to purchase. Less than one in ten is willing to recommend the purchase or usage of parts and/or products of elephant, with no significant differences across cities and age groups. Recommendation is mostly driven by the intenders, buyers and to a lesser extent by users.



Q10. How likely are you to recommend purchasing parts and/or products of the following species or products made of these ingredients to family members or friends? – Elephant – **Weighted data**

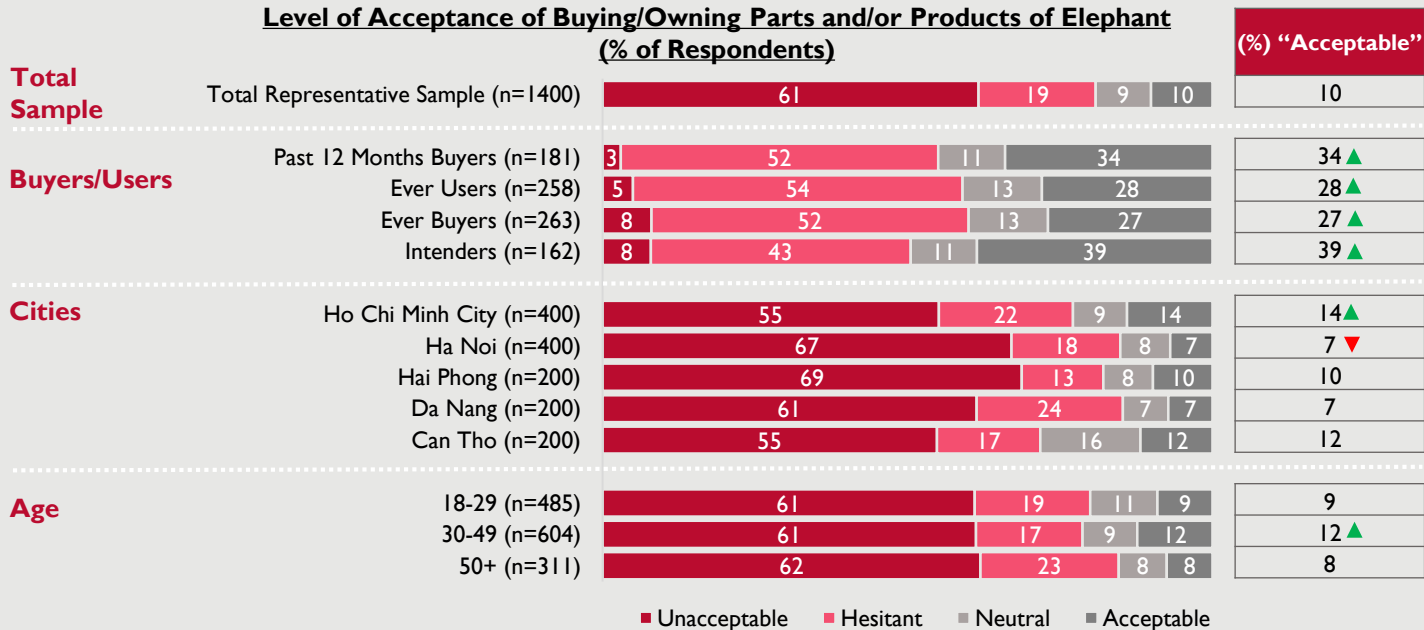
Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)

Acceptability



One in ten thinks that it is acceptable to purchase or use parts and/or products of elephant. Half of the buyers, users and intenders are hesitant, indicating potentially ambivalent behavior/ mindset (i.e., they somehow hesitate to say that it is unacceptable, but they still purchase/ use). **Respondents who live in Ho Chi Minh City and those aged 30-49 are significantly more accepting of the purchase of elephant products vs the general population.**



Q9. Some people enjoy buying and using products made of [elephant/rhino/pangolin], some strongly reject them. How acceptable do you find buying or using products and/or parts of the following species? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

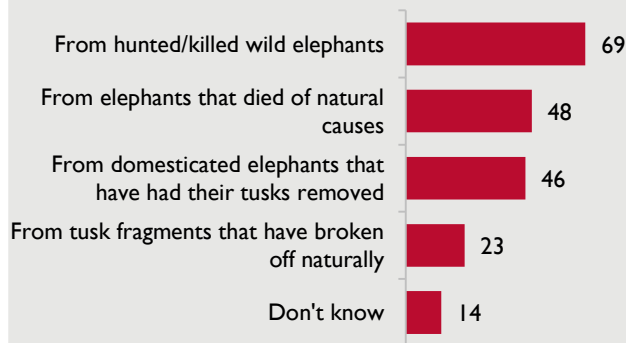
▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box "Acceptable" + "Neutral" only)

Elephant (Ivory) Product Knowledge



Most respondents know that ivory is obtained from hunted/killed wild elephants. However, buyers and users are significantly more likely to believe that ivory is obtained from tusks removed from domesticated elephants or from elephants that died of natural causes than the general population. This indicates a lack of knowledge of how ivory is sourced among buyers/users.

Knowledge of the Process of Obtaining Elephant Ivory
(% of Respondents)



| | Elephant Buyers/ Users | | | | City | | | | | Gender | | Age | | | Income | | |
|---|------------------------|------------|-------------|-----------|-------|--------|-----------|---------|---------|--------|-------|-------|-------|-------|--------|--------|-------|
| | PI2M Buyers | Ever Users | Ever Buyers | Intenders | HCMC | Ha Noi | Hai Phong | Da Nang | Can Tho | Female | Male | 18-29 | 30-49 | 50+ | Low | Middle | High |
| | n=181 | n=258 | n=263 | n=162 | n=400 | n=400 | n=200 | n=200 | n=200 | n=710 | n=690 | n=485 | n=604 | n=311 | n=703 | n=582 | n=115 |
| From hunted/killed wild elephants | 49▼ | 52▼ | 51▼ | 50▼ | 67 | 74▲ | 72 | 67 | 61▼ | 68 | 70 | 69 | 70 | 67 | 71▲ | 67 | 61 |
| From elephants that died of natural causes | 55▲ | 54▲ | 55▲ | 52 | 48 | 50 | 48 | 42▼ | 53 | 47 | 50 | 51 | 48 | 45 | 47 | 49 | 57 |
| From domesticated elephants that have had their tusks removed | 57▲ | 56▲ | 56▲ | 59▲ | 49 | 49 | 47 | 40 | 39▼ | 47 | 45 | 46 | 48 | 42 | 43▼ | 48 | 55 |
| From tusk fragments that have broken off naturally | 38▲ | 35▲ | 33▲ | 34▲ | 23 | 25 | 23 | 16▼ | 23 | 22 | 23 | 22 | 24 | 21 | 20▼ | 24 | 33▲ |
| Don't know | 14 | 14 | 13 | 13 | 12 | 9▼ | 15 | 21▲ | 16 | 14 | 13 | 12 | 13 | 18▲ | 13 | 14 | 16 |

Top statement

Q19a. The following is a list of different ways that elephant ivory might be obtained. Please indicate which phrase(s) applies to the process of getting ivory from elephants. –

Weighted data

Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

3.2 RHINOS



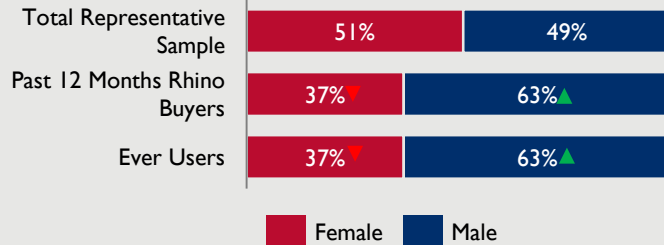
USAID
FROM THE AMERICAN PEOPLE



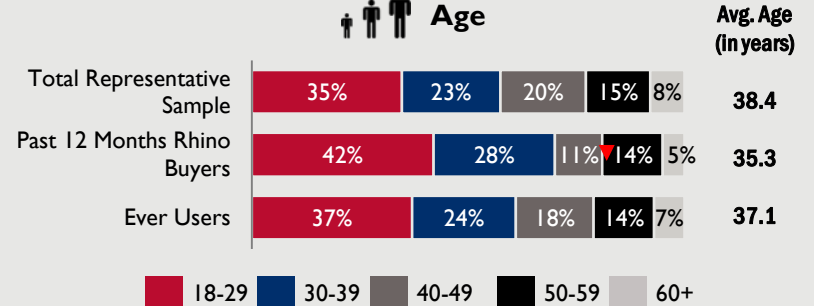
Rhino Past 12 Months Buyers' Profile (I)

The buyers of parts and/or products of rhino are overall younger than the general population, and are more skewed toward males and those with middle and higher incomes. While buyers and users share similar gender, education and income profiles, their average age differs, i.e. buyers are overall younger than users (35.3 vs 37.1 years old).

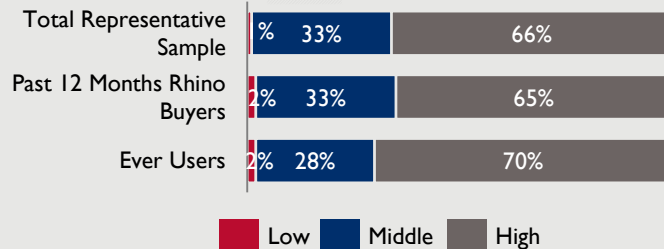
Gender



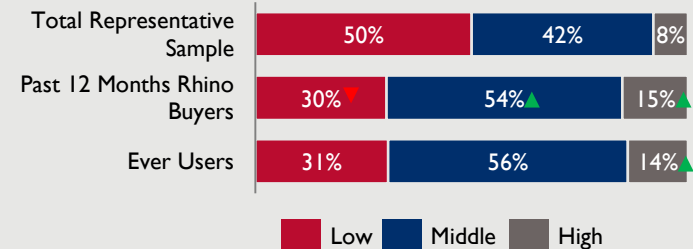
Age



Education



Income



S2. Age, S3. Gender, S4. Income, S5. Education – **Weighted data**

Base: Total representative sample, n=1400, Past 12 Months Rhino Buyers, n=79, Ever Users, n=143

▲ ▲ Statistically significant difference: higher / lower at 95 confidence level vs Total

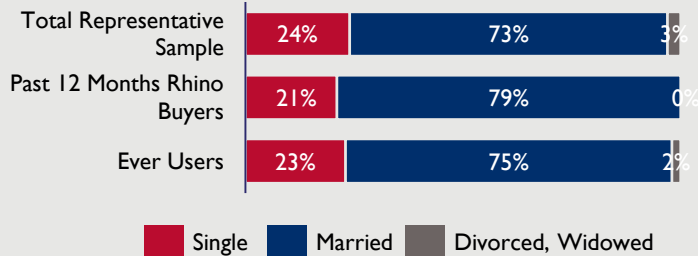


Rhino Past 12 Months Buyers' Profile (2)

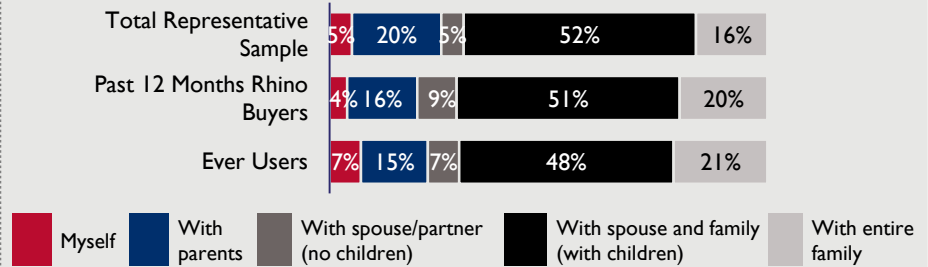
Rhino Past 12 Months Buyers are significantly more likely to be travelers vs the general population in the five cities surveyed. They are also significantly more represented in Can Tho vs the general population. As observed with elephant products' buyers, the past 12 months rhino buyers are travelling slightly more regularly than the rhino users.



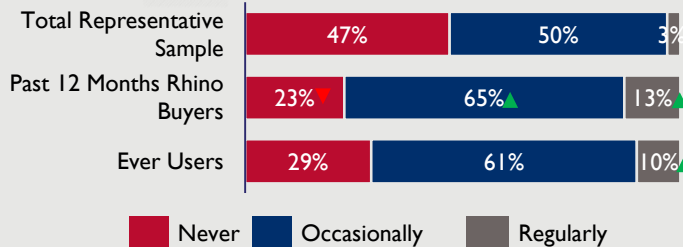
Marital Status



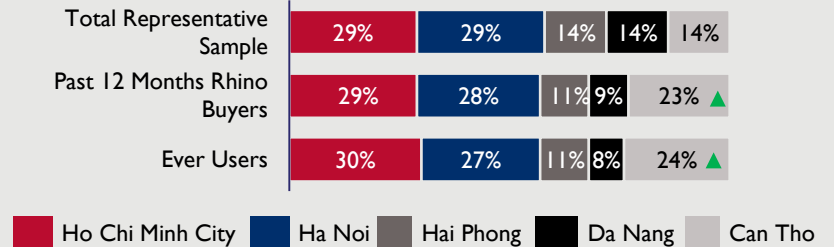
Household Composition



Travel outside Vietnam



City



Q22. Marital Status, Q23. Household Composition, Q26. Travel Overseas – **Weighted data**

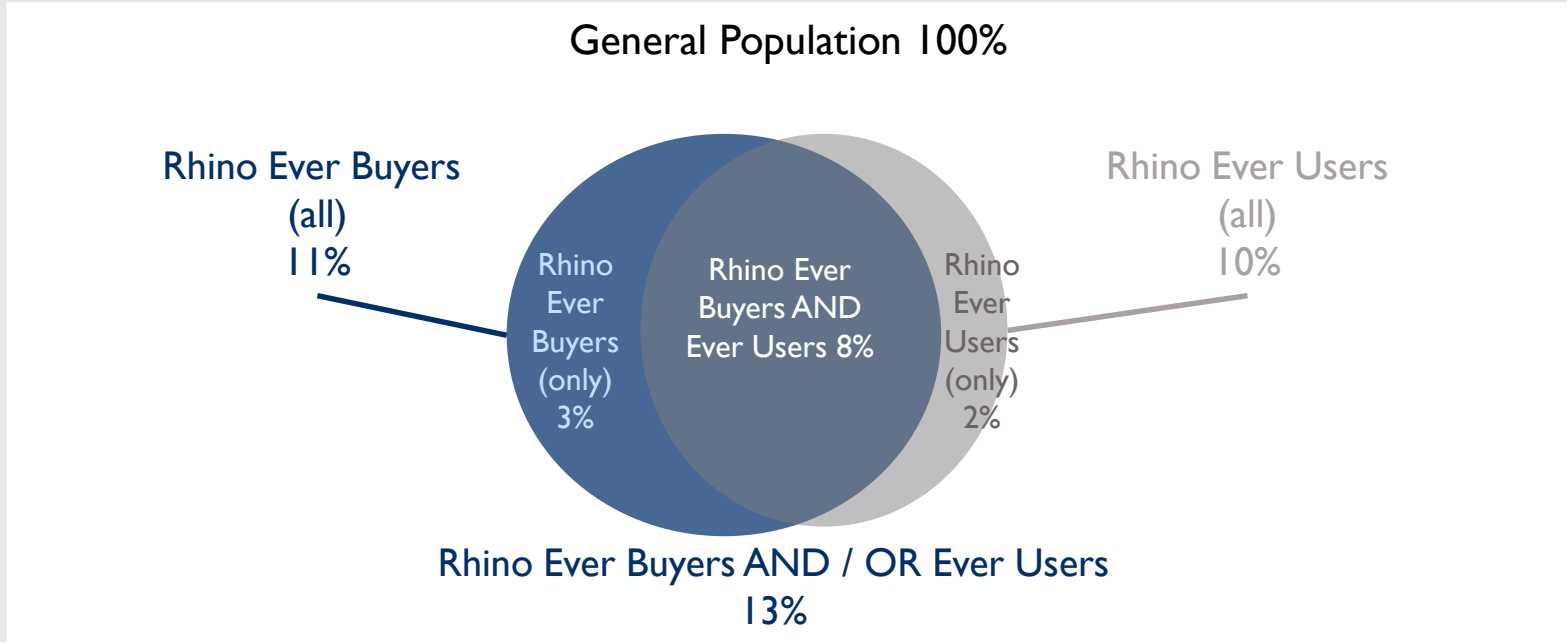
Base: Total representative sample, n=1400, Past 12 Months Rhino Buyers, n=79, Ever Users, n=143

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total



Purchase/Usage Penetration of Parts and/or Products of Rhino

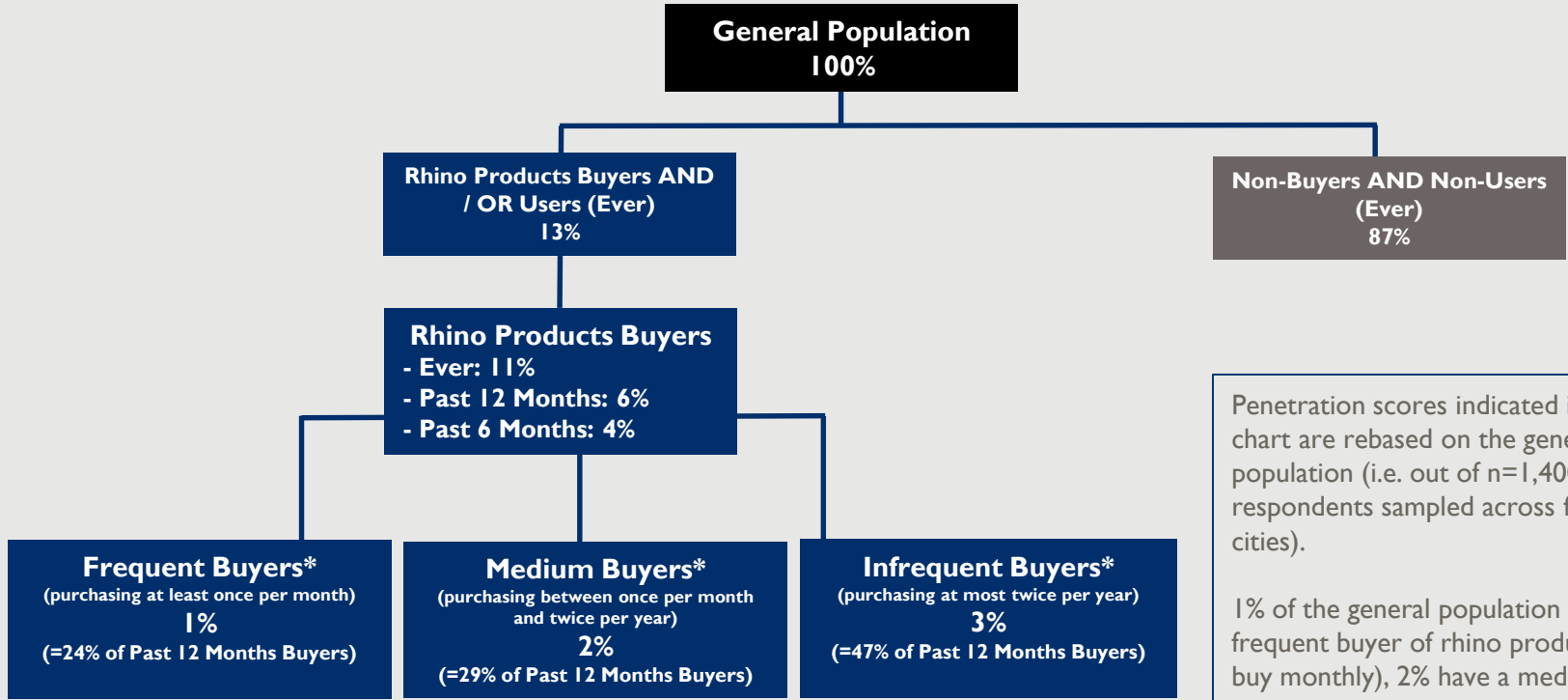
There is a significant overlap between the buyers and users of rhino parts and/or products.



Q1a, Q1b, Q2. Ever purchase, Q6. Ever usage – **Weighted data**
Base: Total representative sample, n=1400 in five selected cities



Purchase Penetration and Intention



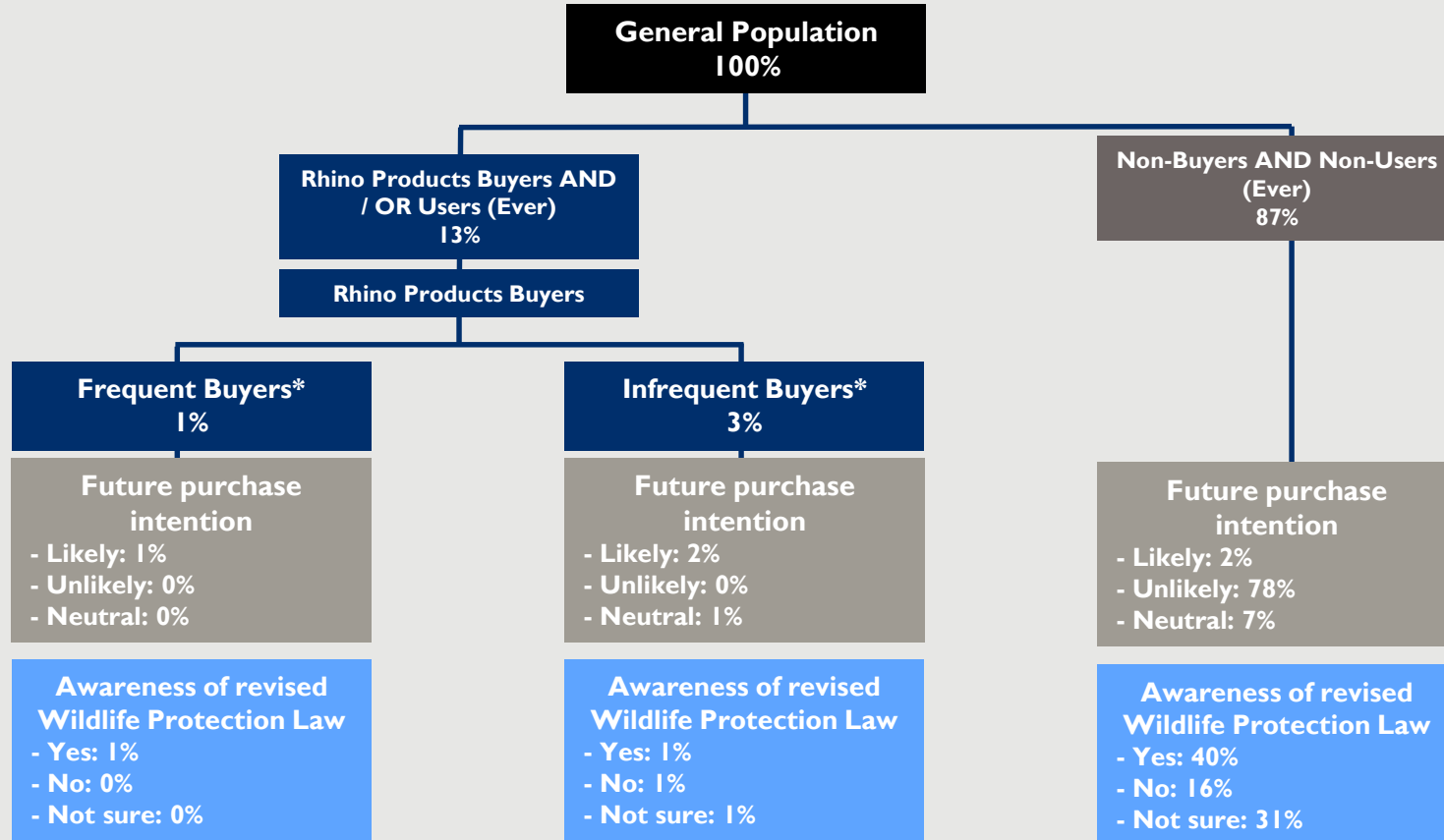
Penetration scores indicated in this chart are rebased on the general population (i.e. out of n=1,400 respondents sampled across five cities).

1% of the general population is a frequent buyer of rhino products (i.e. buy monthly), 2% have a medium frequency of purchase and 3% is infrequent (i.e. buy twice per year or less).

* The groupings of buyers by frequency includes past 12 months buyers only.

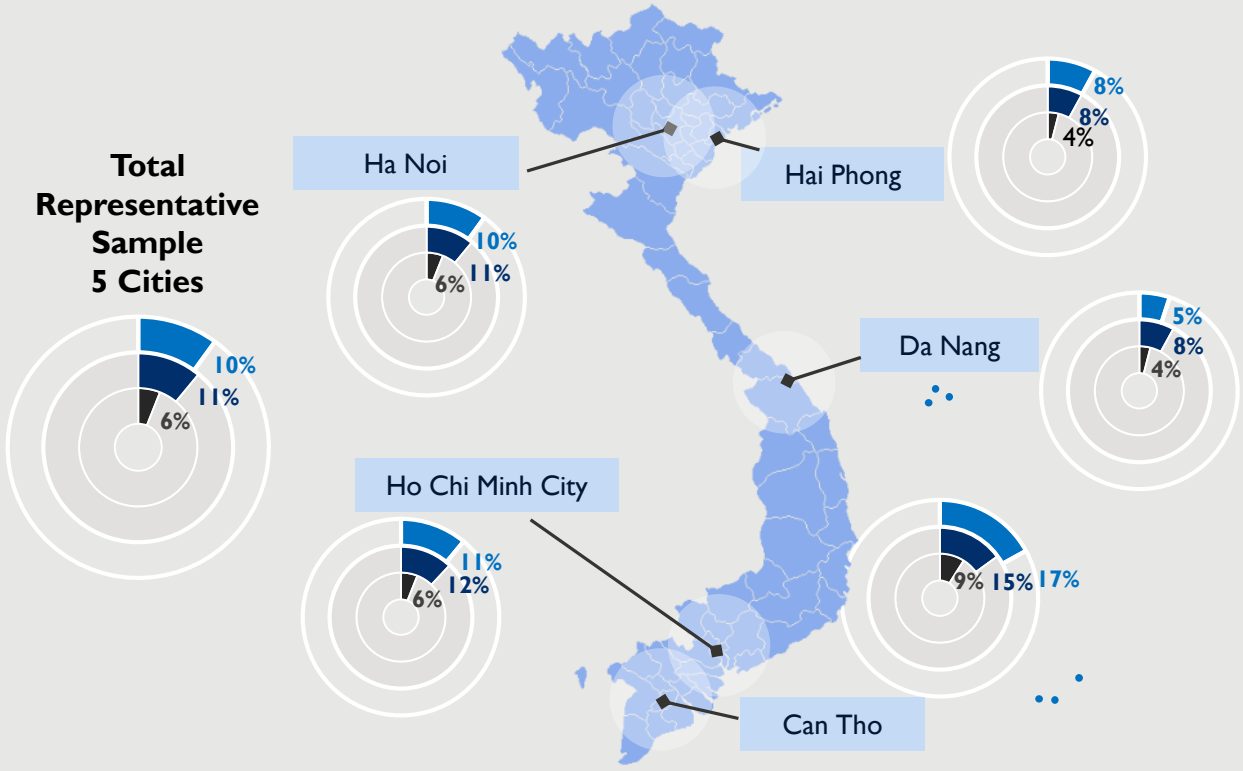


Purchase Penetration and Intention





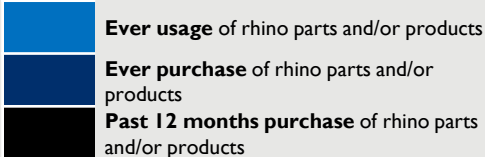
Past Purchase of Rhino Parts and/or Products



Ever usage of rhino parts and/or products is similar to Ever purchase (i.e., one in ten claim to have used these products in the past).

Overall, 11% of the respondents claim to have ever purchased rhino parts and/or products, and **6% purchased in the past 12 months.**

Amongst the five selected cities, Ever Buyers of rhino parts and/or products are the most represented in Can Tho (15%), and the least represented in Hai Phong and Da Nang (8% in each city).



Q1a/Q1b/Q2. Ever Bought, Q3. And have you bought products or parts of the following species, for yourself or someone else, in the past 12 months? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities, n=400 in Ho Chi Minh City, n=400 in Ha Noi, n=200 in Hai Phong, n=200 in Da Nang, n=200 in Can Tho

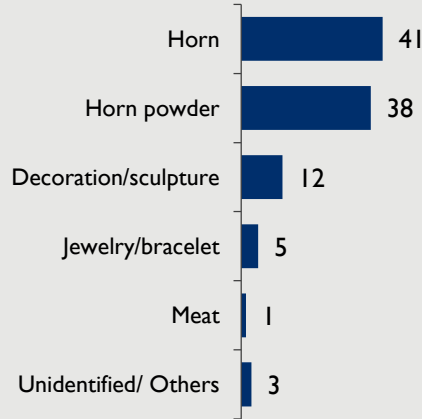


Parts and/or Products of Rhino Purchased

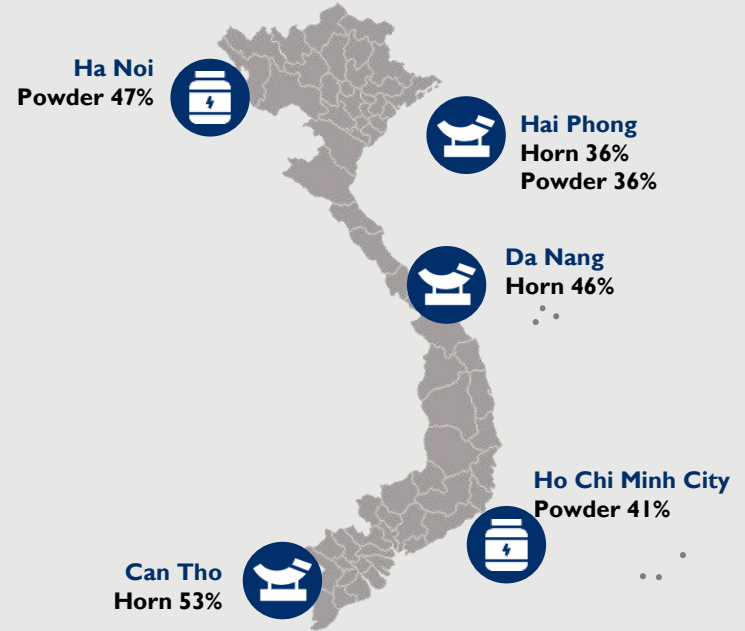
Among those who have bought rhino parts and/or products in the past 12 months

Horn and horn powder are the main parts and/or products of rhinos purchased overall. There are some differences by city, i.e., horn is the main product purchased in Hai Phong, Da Nang and Can Tho, while powder is the main product purchased in HCMC. In Ha Noi, both products are bought equally.

Main Parts and/or Products of Rhino Purchased (% of Respondents)



Top Purchased Item by City



Q8a. Q8b. You said that you have bought parts and/or products of rhino in the past 12 months. Thinking about your last purchase, please indicate more specifically what parts or products of rhino you purchased. How many/much did you buy, and for how much? **[Open-ended question] – Weighted data**




Base: Past 12 Months Rhino Buyers (Total sample + Booster sample) n=148



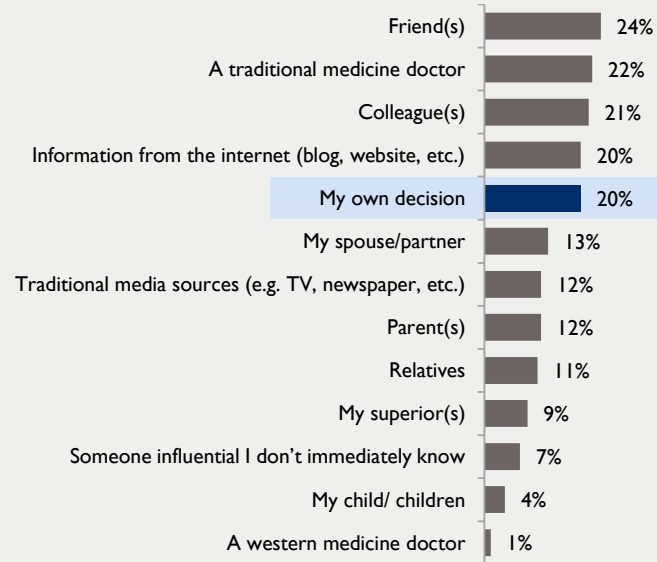
Purchase Decision and Influencers

Among those who have bought rhino parts and/or products in the past 12 months

Rhino parts and/or products are planned purchases for half of the buyers, with the decision often motivated by friends or by a traditional medicine doctor.

| | |
|---|-----|
|  % who made a <u>planned</u> purchase | 53% |
|  % who made an <u>unplanned</u> purchase | 41% |
|  I cannot remember | 6% |

Who Had Motivated Your Purchase Decision? Among those who bought rhino parts/products



Q13a. Please think about the last time you purchased parts and/or products from the following species. Was it a planned or unplanned decision to purchase the products?

Rhino – **Weighted data**

Q13b. Thinking about this last purchase, who had motivated your purchase decision? – **Weighted data**

Base: Past 12 Months Rhino Buyers (Total Sample + Booster Sample) n=148 in five selected cities



Purchase Channels – Rhino Products and/or Parts

Among those who have bought rhino parts and/or products in the past 12 months

Rhino parts and/or products are mainly purchased from private individuals in Vietnam. However, one in three buyers also purchase them when traveling outside Vietnam on leisure trips, particularly young people aged 18-29 (among whom 41% buy overseas on leisure trips).

Purchase Channels
(% of Respondents)



Avg. # of channels: 1.9

| Users/Intenders | City | | | | | | Gender | | Age | | | Income | | | |
|---|------------|------------|------------|------------|---------------------|---------------------|---------------------|------------|------------|------------|------------|---------------------|------------|------------|---------------------|
| | Ever Users | Intenders | HCMC | Ha Noi | Hai Phong | Da Nang | Can Tho | Female | Male | 18-29 | 30-49 | 50+ | Low | Middle | High |
| | n=133 | n=53 | n=62 | n=51 | n=10* | n=7* | n=18* | n=29 | n=50 | n=33 | n=31 | n=15* | n=24 | n=43 | n=12* |
| In Vietnam, physically, from a private individual | 45 | 59 ▲ | 40 | 48 | *Small base n<20 | *Small base n<20 | *Small base n<20 | 54 | 46 | 54 | 46 | *Small base n<20 | 29 | 58 | *Small base n<20 |
| When travelling overseas on leisure trips | 33 | 37 | 25 | 37 | | | | 41 | 26 | 41 | 26 | | 24 | 34 | |
| In a TM pharmacy | 24 | 12 | 27 | 20 | | | | 19 | 13 | 19 | 13 | | 26 | 10 ▼ | |
| In retail store in Vietnam | 20 | 21 | 25 | 14 | | | | 16 | 26 | 16 | 26 | | 29 | 20 | |
| When travelling overseas on business trips | 19 | 17 | 16 | 25 | | | | 24 | 13 | 24 | 13 | | 25 | 9 | |
| Online | 14 | 13 | 13 | 19 | | | | 16 | 13 | 16 | 13 | | 13 | 17 | |
| In a market stall in Vietnam | 10 | 8 | 13 | 12 | | | | 10 | 12 | 10 | 12 | | 12 | 9 | |
| In zoos and safari parks | 6 | 6 | 5 | 10 | | | | 3 | 3 | 3 | 3 | | 8 | 5 | |
| In a wholesale shop/market | 7 | 7 | 6 | 12 | | | | 6 | 6 | 6 | 6 | | 4 | 7 | |
| From street vendors in Vietnam | 7 | 9 | 8 | 8 | | | | 9 | 9 | 9 | 9 | | 12 | 4 | |
| Other | 5 | | | | | | | | | | | | | | |
| Avg. # of channels | 1.9 | 1.9 | 1.8 | 2.1 | | | | 1.4 | 2.0 | 2.0 | 1.7 | | 1.8 | 1.7 | |

Q12. Where did you purchase products and/or parts of rhinos? – **Weighted data**

Base: Past 12 Months Rhino Buyers and city samples based on Main Sample + Booster Sample, n=148 in five selected cities

Gender, Age and Income samples based on Past 12 Months Rhino Buyers from Main Sample.

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total – *Small base: n<20

 Top purchase channel



Purchase Occasions

Among those who have bought rhino parts and/or products in the past 12 months

Parts and/or products of rhino are mostly purchased for health and wellness, i.e., “to promote wellness” and “to treat an illness” are the top two occasions across all cities and sub-groups.

Top 10 Purchase Occasions
(% of Buyers)



| Users/Intenders | City | | | | | | Gender | | Age | | | Income | | | |
|-----------------------|---------------------|-------------------|--------------|----------------|---------------------|---------------------|---------------------|----------------|--------------|---------------|---------------|---------------------|-------------|----------------|---------------------|
| | Ever Users n=133 | Intenders n=53 | HCMC n=62 | Ha Noi n=51 | Hai Phong n=10* | Da Nang n=7* | Can Tho n=18* | Female n=29 | Male n=50 | 18-29 n=33 | 30-49 n=31 | 50+ n=15* | Low n=24 | Middle n=43 | High n=12* |
| To promote wellness | 31 | 35 | 33 | 30 | | | | 39 | 29 | 31 | 40 | | 29 | 37 | |
| To treat an illness | 25 | 29 | 25 | 25 | | | | 18 | 22 | 22 | 20 | | 29 | 19 | |
| A gift to someone | 15 | 14 | 13 | 21 | | | | 24 | 17 | 16 | 16 | | 12 | 15 | |
| No specific occasion | 13 | 12 | 11 | 14 | | | | 7 | 17 | 13 | 17 | | 16 | 10 | |
| Tet | 3 | 4 | 3 | 0 ▼ | *Small base n<20 | *Small base n<20 | *Small base n<20 | 4 | 6 | 6 | 7 | *Small base n<20 | 5 | 7 | *Small base n<20 |
| A promotion at work | 3 | 4 | 2 | 4 | | | | 0 ▼ | 4 | 3 | 0 ▼ | | 4 | 3 | |
| A birthday | 3 | 0 ▼ | 6 | 0 ▼ | | | | 0 ▼ | 0 ▼ | 0 ▼ | 0 ▼ | | 0 ▼ | 0 ▼ | |
| Moving out of home | 3 | 0 ▼ | 3 | 2 | | | | 7 | 0 ▼ | 3 | 0 ▼ | | 0 ▼ | 5 | |
| A wedding anniversary | 1 | 2 | 0 | 0 | | | | 0 | 4 | 3 | 0 | | 0 ▼ | 5 | |
| A graduation | 1 | 0 | 0 | 2 | | | | 0 | 0 | 0 | 0 | | 0 | 0 | |

Top purchase occasion

Q14. Thinking again about the last purchase, what was this purchase meant for? – **Weighted data**

Base: Past 12 Months Rhino Buyers and city samples based on Main Sample + Booster Sample, n=148 in five selected cities

Gender, Age and Income samples based on Past 12 Months Rhino Buyers from Main Sample.

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total – *Small base: n<20

Amount Paid and Willingness to Pay More

Among those who have bought / used rhino parts and/or products in the past 12 months

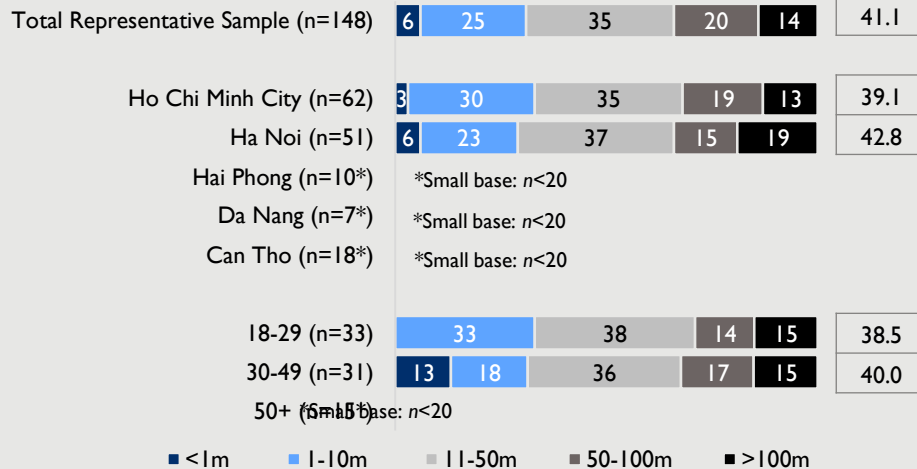
Note: price measurements of (partly) illegal products can provide inconsistent results and have to be reviewed with caution.



On average, the Past 12 Months Buyers claim to have spent 41.1 million VND (approx. USD\$1,765) on their last purchase of parts and/or products of rhino. This amount is similar in the cities surveyed and by age group. Overall, 72% of the buyers are willing to pay between 0% and 10% more than the actual price for their next purchase (of the same product).

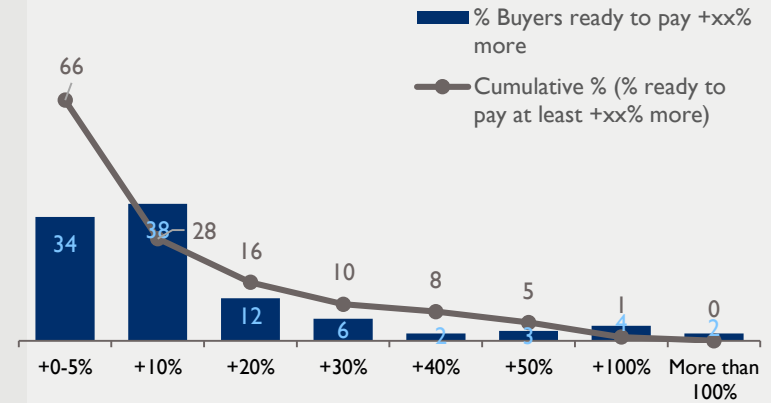
Money Spent on Last Purchase (VND)
(% of Buyers)

Average spent
(in million VND)



How Much More Would You Consider Paying?
(% of Buyers)

Average % ready to pay more: **15.9%**



Q8c. You said that you have bought parts and/or products of rhinos in the past 12 months. Thinking about your last purchase, how many/much did you buy, and for how much?
– **Weighted data**

Q16a. Thinking about your last purchase, how much more would you consider to pay in order to buy that item? – **Weighted data**

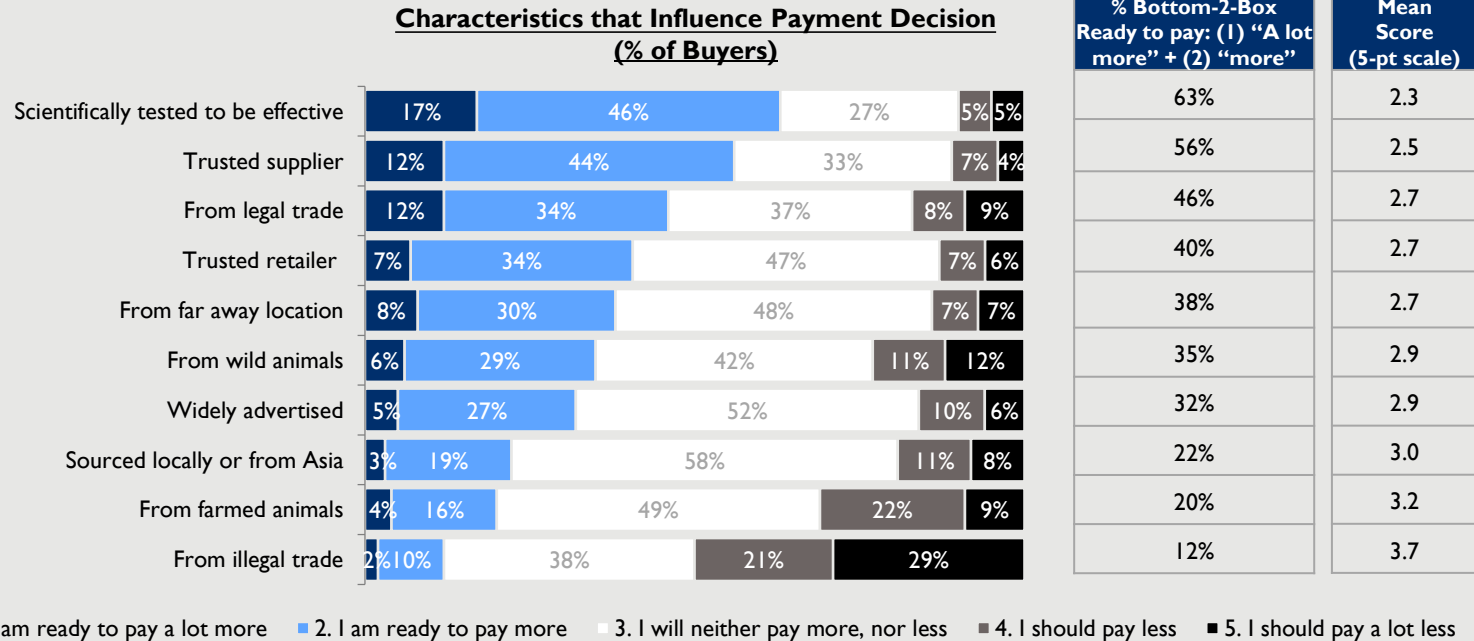
Base: Past 12 Months Rhino Buyers and city samples based on Main Sample + Booster Sample, n=148 in five selected cities, *Small base: n<20



Willingness to Pay More for Specific Product Attributes

Among those who have bought / used rhino parts and/or products in the past 12 months

63% of the buyers and/or users of parts and/or products of rhino are ready to pay more if the product's efficacy is scientifically tested or if it comes from a trusted supplier. On the other hand, half think that they should pay less or a lot less if the product comes from illegal trade.



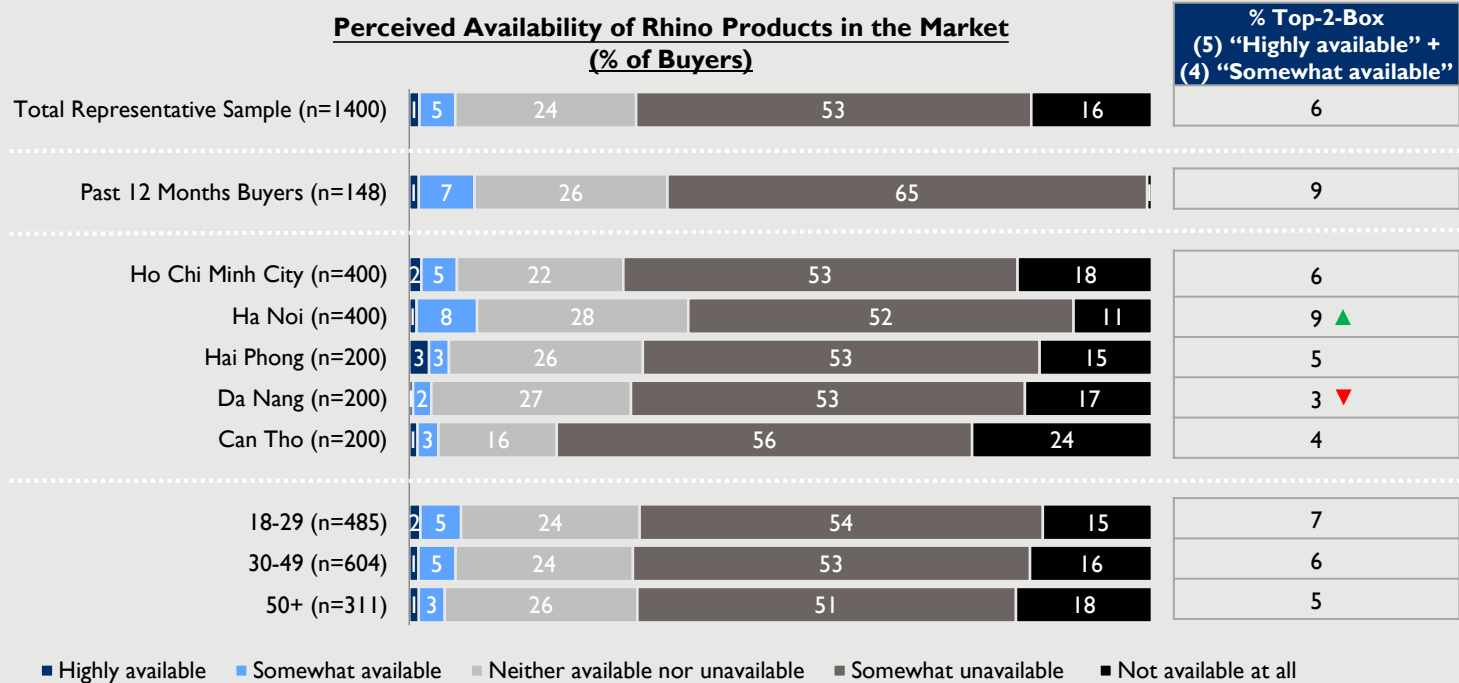
Q15a. You said that you bought/used/may buy parts and/or products of rhinos, to which extent do the following characteristics influence your payment decision? – **Weighted data**

Base: Rhino Ever Buyers and/or Ever Users and/or Intenders, n=310 in five selected cities

Market Availability



Rhino parts and/or products are perceived (very) difficult to obtain. Overall, almost seven in ten think that rhino parts and/or products are somewhat unavailable or not available at all.



Q18.To which extent are products and/or parts of the following species available to buy/find in Vietnam? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities / Past 12 Months Rhino Buyers (Total sample + Booster sample) n=148 in five selected cities

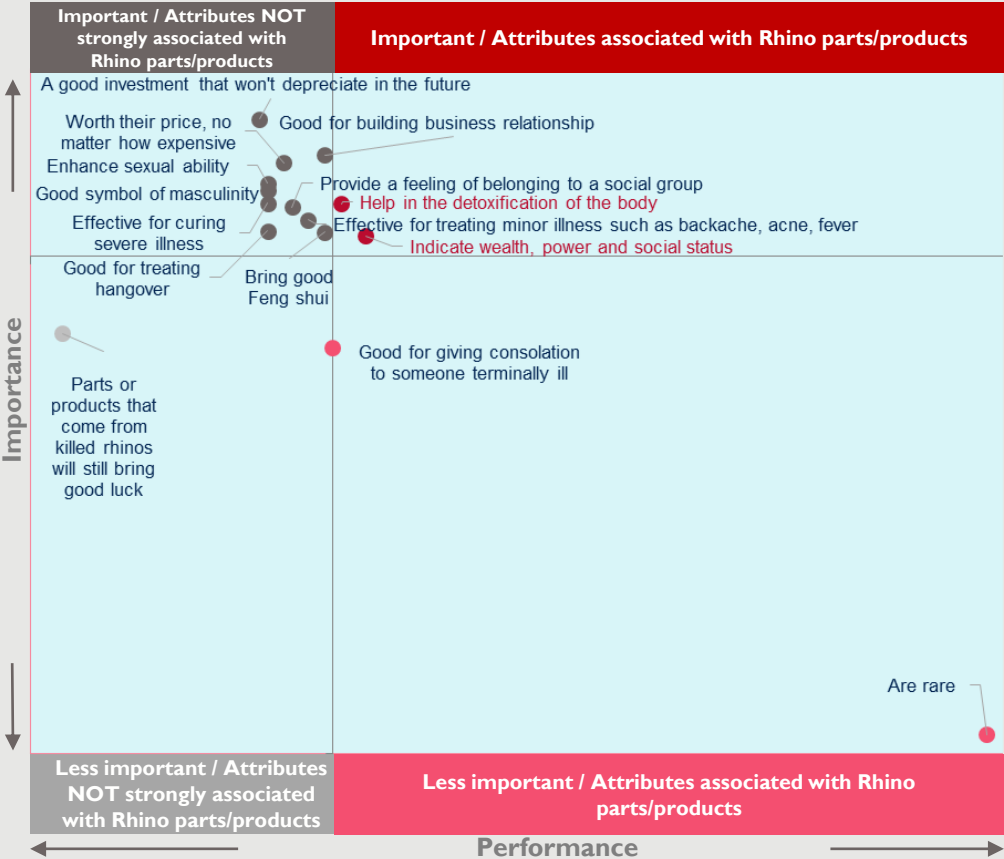
▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Drivers Analysis – Among the General Population

Importance of different attributes vs performance on these attributes of rhino parts and/or products

- Overall, the general population in the five cities surveyed mostly associate rhino products with its rarity. This perception correlates positively with the perception that it is highly unavailable. However, rarity is not seen as being important for a product and hence it is unlikely to drive the general population to use or purchase rhino products.
- However, helping in the detoxification of the body and indicating wealth, power and social status are seen as important attributes and are also strongly associated with rhino products, hence they represent potential drivers of purchase and/or usage among the general population.
- It is worth noting that other attributes such as being good for building business relationships, bringing good Fengshui and effective for treating minor illnesses are important as well, and represent secondary drivers for the purchase of rhino products.

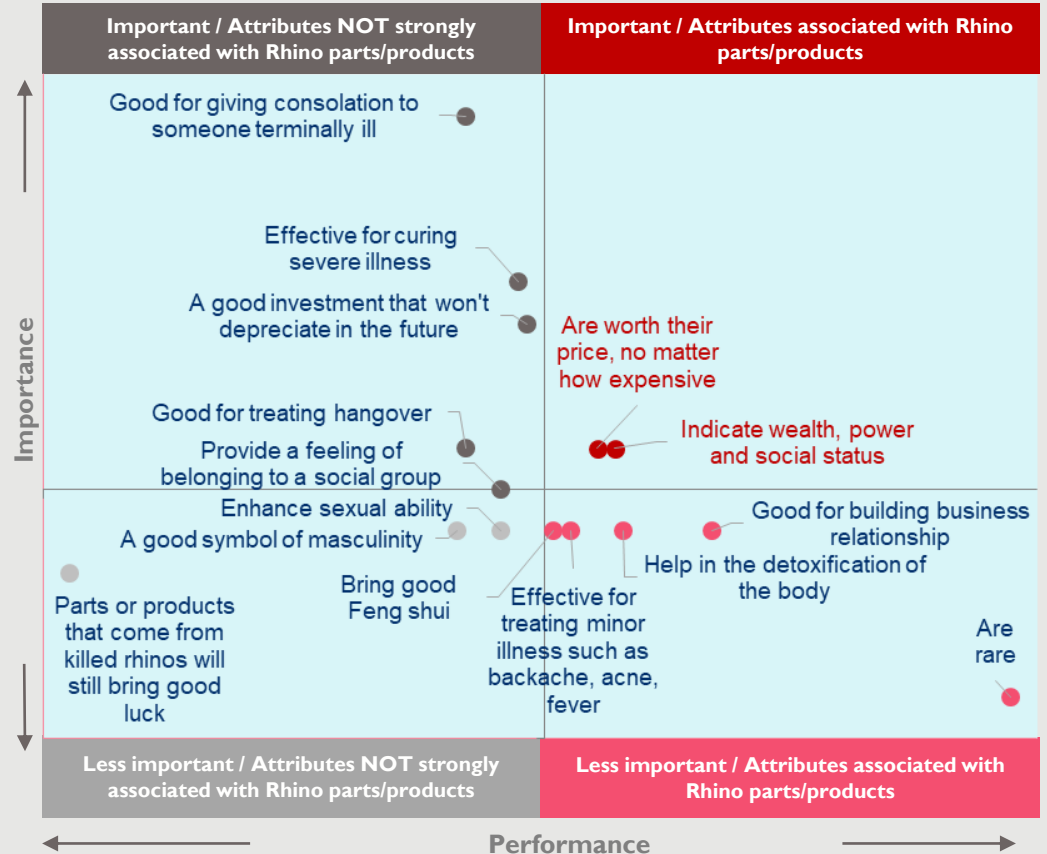




Drivers Analysis – Among Past 12 Months Buyers

Importance of different attributes vs performance on these attributes of rhino parts and/or products

- The Past 12 Months Rhino Buyers associate more attributes to rhinos than the general population do, particularly social and health benefits.
- Among these attributes, “are worth their price no matter how expensive” and “indicate wealth, power and social status” are seen as highly important and hence, these are the main drivers for buyers.
- However being “rare,” “good for building business relationships” and “helping in the detoxification of the body,” although being strongly associated to rhino products, are seen as less important and are less likely to drive purchase.
- It is worth noting that other attributes such as “good for giving consolation to someone terminally ill” and “effective for curing severe illness” are seen as highly important but are not strongly associated to rhino products by buyers, and as result represent secondary drivers of purchase.





Statement Groupings and Narratives for Rhino

Narrative Analysis for Rhino (to reveal attitudes and motivations)

People’s decisions and behaviors are underlined by narrative frames that explain and justify them. Using **structural modeling (Principal Component Analysis)**, we identified stable combinations of attitudes, perceptions and motivations that exist in people’s minds when they think about specific wildlife products or explain their attraction to them. Narratives could be interpreted as drivers/motivators or deterrents. The narratives for rhino are designed based on the following groups of statements, all indicating a **plus** score, i.e., agreement with the respective statement:

Statement groupings

| | |
|---|-------|
| Indicate wealth, power and social status | 0.779 |
| Provide a feeling of belonging to a social group | 0.748 |
| Are good for building business relationships | 0.721 |
| Are a good investment that won't depreciate in the future | 0.709 |
| Are a good symbol of masculinity | 0.700 |
| Bring good Fengshui | 0.686 |
| Are worth their price, no matter how expensive | 0.611 |

| | |
|--|-------|
| Are effective for treating minor illness such as backache, acne, fever | 0.782 |
| Help in the detoxification of the body | 0.766 |
| Are effective for curing severe illness | 0.760 |
| Are good for treating hangovers | 0.739 |
| Enhance sexual ability | 0.679 |
| Are good for giving consolation to someone terminally ill | 0.602 |

| | |
|---|-------|
| That come from killed rhinos will still bring good luck | 0.731 |
|---|-------|

| | |
|----------|-------|
| Are rare | 0.925 |
|----------|-------|

Narratives

Narrative 1: Social, investment and symbolic values
 Rhino parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also other benefits such as a high investment value, are good for building business relationships and I believe they are the symbol of masculinity.

Narrative 2: Health benefits
 I believe that rhino parts or products have various health benefits: they are particularly effective for treating minor illness such as backache, acne, fever and help in the detoxification of the body. Additionally, they are also effective for curing severe illness.

Narrative 3: Good luck
 I believe that even parts or products that come from killed rhinos will bring good luck.

Narrative 4: Rarity
 Rhino parts or products are rare.



Motivational Narratives Analysis – Rhino

Definition of Labels and Narratives

| Sub-group | Label (in the map) | Sub-group | Label (in the map) |
|------------------|----------------------------|-------------------------------|--------------------------|
| Ho Chi Minh City | <i>HCMC</i> | Female | <i>Female</i> |
| Ha Noi | <i>Ha Noi</i> | Male | <i>Male</i> |
| Hai Phong | <i>Hai Phong</i> | Past 12 Months Buyers | <i>P12M Buyers</i> |
| Da Nang | <i>Da Nang</i> | Ever Users | <i>Ever Users</i> |
| Can Tho | <i>Can Tho</i> | Future Purchase Intenders | <i>Intenders</i> |
| 18-29 years old | <i>Millennials (18-29)</i> | Future Purchase Non-intenders | <i>Non-Intenders</i> |
| 30-39 years old | <i>30-39</i> | Frequent Buyers | <i>Frequent Buyers</i> |
| 40-49 years old | <i>40-49</i> | Infrequent Buyers | <i>Infrequent Buyers</i> |
| 50-59 years old | <i>50-59</i> | | |
| 60-69 years old | <i>60-69</i> | | |

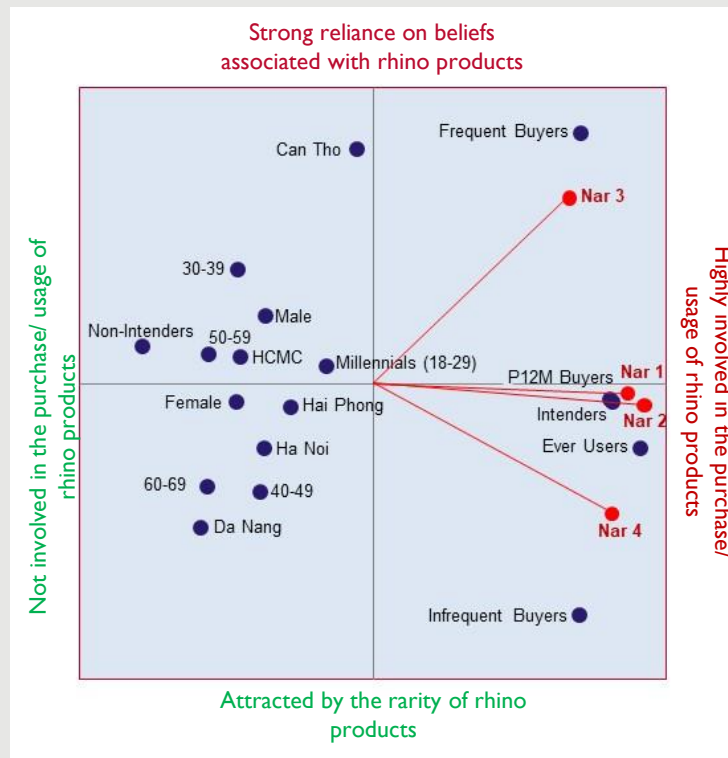
Narratives

Nar1: Rhino parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also offer other benefits such as a high investment value, are good for building business relationships and I believe they are the symbol of masculinity.

Nar2: I believe that rhino parts or products have various health benefits: they are particularly effective for treating minor illness such as backache, acne, fever and help in the detoxification of the body. Additionally, they are also effective for curing severe illness.

Nar3: I believe that even parts or products that come from killed rhinos will bring good luck.

Nar4: Rhino parts or products are rare.



Q17b. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of rhinos. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**



Motivational Narratives Analysis – Rhino

Analysis

- The Past 12 Months Buyers, Ever Users and Intenders all share a similar mindset, i.e., these three groups are closely related to Narratives 1 and 2.
- Hence, messages targeting the current buyers/users and potential buyers (Intenders) will resonate among these groups of respondents if they directly address the social role of rhino products, the investment and symbolic values as well as the perceived health benefits.
- However, the most frequent and heavy buyers mostly share the mindset reflected in Narrative 3, which indicates a strong reliance on beliefs associated with rhino products, and a lack of concern for animal cruelty. Respondents in Can Tho share a similar mindset.
- While planning communication campaigns in Can Tho and targeting the Frequent Buyers, Narrative 3 should be effectively countered by communicating messages on legality/penalties, but also on the consequences of buying rhino horn and on the fact that beliefs associated with rhino horn are a misconception, in order to educate buyers.
- Millennials are the age group that relates the most to the narratives 1 and 2, i.e. they give the highest ratings to these Narratives among all age groups and as a result, are located closer to the Narratives on the map.

Narratives

Nar1: Rhino parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also offer benefits such as a high investment value, are good for building business relationships and I believe they are the symbol of masculinity.

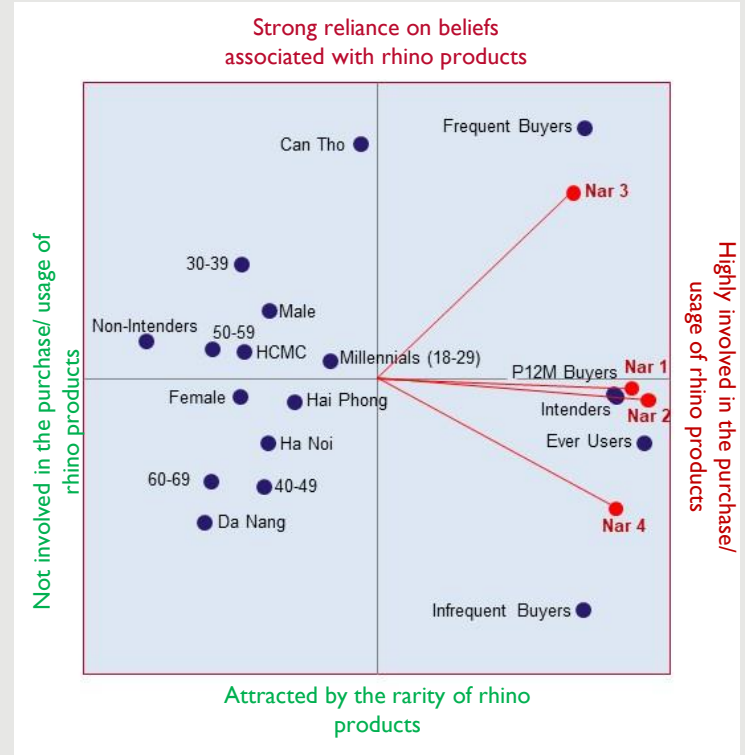
Nar2: I believe that rhino parts or products have various health benefits: they are particularly effective for treating minor illness such as backache, acne, fever and help in the detoxification of the body. Additionally, they are also effective for curing severe illness.

Nar3: I believe that even parts or products that come from killed rhinos will bring good luck.

Nar4: Rhino parts or products are rare.

Q17b. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of rhinos. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

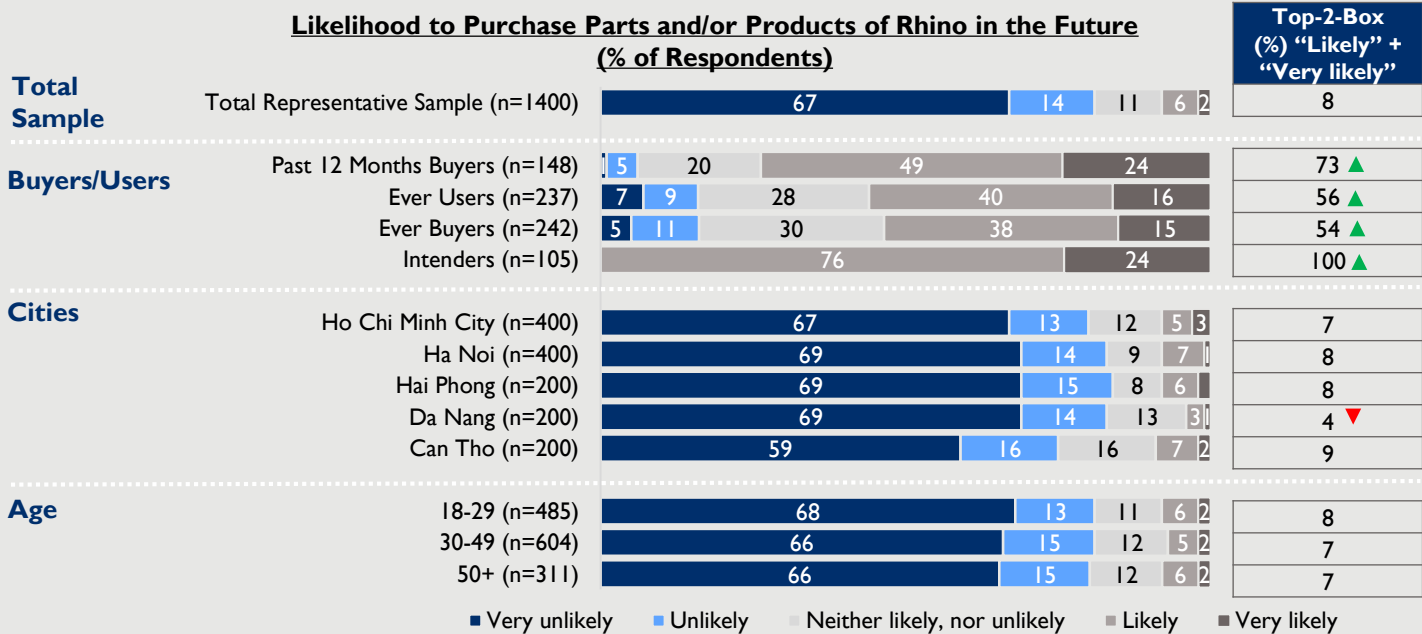
Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**





Future Purchase Intention

8% of the respondents intend to purchase rhino parts and/or products in the future. This is mostly driven by users and buyers. Among current buyers, three in four intend to repeat their purchase in the future, indicating a relatively strong demand for rhino parts and/or products among this group.



Q5. How likely will you be to purchase parts and/or products from the following species in the future? – Rhino – **Weighted data**

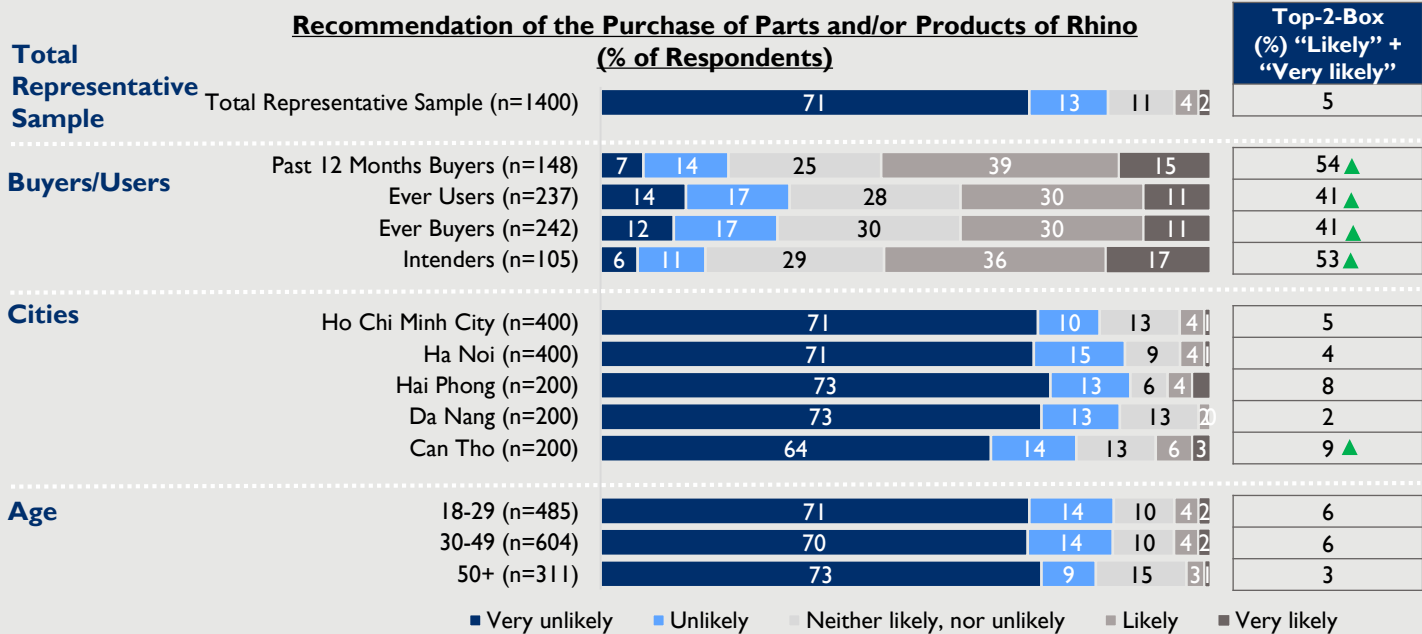
Base: Total representative sample, n=1400 in five selected cities. Past 12 Month Rhino Buyers / Ever Users (Total sample + Booster sample)

▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Recommendation

Intention to recommend purchasing parts and/or products of rhino is positively correlated with the intention to purchase. Overall, just 5 percent of respondents across the five cities surveyed are willing to recommend the purchase or usage of parts and/or products of rhino. Among cities, the portion of advocates is significantly higher in Can Tho only (9%). Recommendation is mostly driven by the Intenders, buyers and to a lesser extent by users.



Q10. How likely are you to recommend purchasing parts and/or products of the following species or products made of these ingredients to family members or friends? – Rhino – **Weighted data**

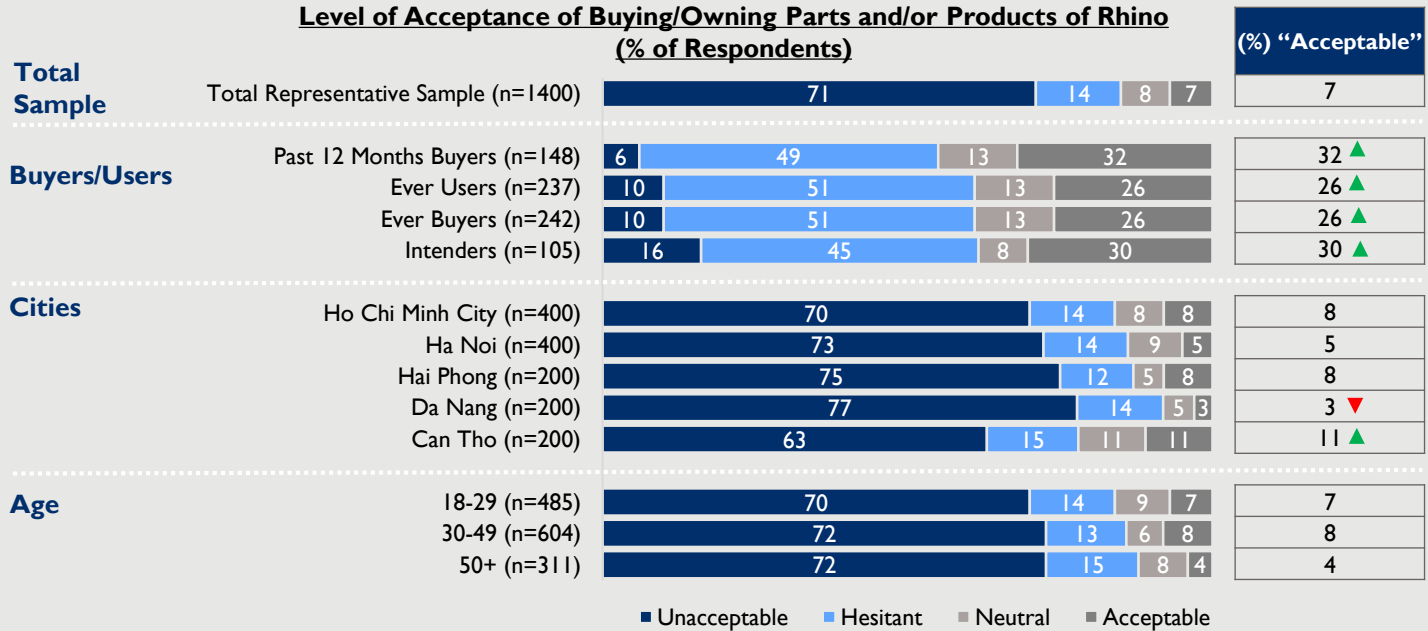
Base: Total representative sample, n=1400 in five selected cities. Past 12 Month Rhino Buyers / Ever Users (Total sample + Booster sample)

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Acceptability

7% of the respondents think that it is acceptable to purchase or use parts and/or products of rhino. It is worth noting that more than half of the buyers, users and Intenders are hesitant or find it unacceptable to buy rhino products, indicating potentially ambivalent behavior/mindset (i.e., they somehow admit that it is unacceptable, but they still purchase or use).



Q9. Some people enjoy buying and using products made of [elephant/rhino/pangolin], some strongly reject them. How acceptable do you find buying or using products and/or parts of the following species? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities. Past 12 Month Rhino Buyers / Ever Users (Total sample + Booster sample)

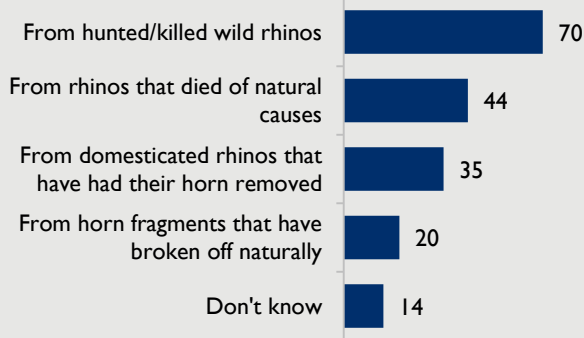
▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box "Acceptable" + "Neutral" only)



Rhino (Horn) Product Knowledge

Most respondents know that rhino horns are obtained from hunted/killed wild rhinos. However, it is worth noting that buyers and users believe significantly more than the general population that rhino horns are obtained from rhinos that died from natural causes, from domesticated rhinos or from fragments that have broken off naturally. This indicates a lack of product knowledge among those who buy/use parts and/or products of rhino. It could also be however, a case of cognitive dissonance: ‘having inconsistent thoughts, beliefs, or attitudes, especially as relating to behavioral decisions and attitude change’.

Knowledge of the Process of Obtaining Rhino Horn (% of Respondents)



| Rhino Buyers/ Users | | | | City | | | | | Gender | | Age | | | Income | | |
|----------------------|---------------------|----------------------|--------------------|---------------|-----------------|--------------------|------------------|------------------|-----------------|---------------|----------------|----------------|--------------|--------------|-----------------|---------------|
| P12M Buyers n=148 | Ever Users n=237 | Ever Buyers n=242 | Intenders n=105 | HCMC n=400 | Ha Noi n=400 | Hai Phong n=200 | Da Nang n=200 | Can Tho n=200 | Female n=710 | Male n=690 | 18-29 n=485 | 30-49 n=604 | 50+ n=311 | Low n=703 | Middle n=582 | High n=115 |
| 56 ▼ | 60 ▼ | 57 ▼ | 58 ▼ | 71 | 74 | 75 | 68 ▼ | 61 | 68 | 72 | 72 | 71 | 66 | 72 | 69 | 67 |
| 53 ▲ | 55 ▲ | 56 ▲ | 49 | 43 | 48 | 44 ▼ | 34 | 47 | 42 | 46 | 46 | 44 | 41 ▼ | 41 | 46 | 48 |
| 47 ▲ | 51 ▲ | 48 ▲ | 46 ▲ | 36 | 37 | 37 ▼ | 28 | 36 | 35 | 35 | 36 | 36 | 33 | 33 | 36 | 43 |
| 31 ▲ | 30 ▲ | 33 ▲ | 29 ▲ | 18 | 22 | 21 ▼ | 13 | 25 | 18 | 21 | 20 | 21 | 18 ▼ | 16 ▲ | 22 | 27 |
| 8 ▼ | 8 ▼ | 9 ▼ | 7 ▼ | 13 ▼ | 10 | 14 ▲ | 23 | 14 | 16 | 12 ▼ | 10 | 14 ▲ | 20 | 15 | 13 | 14 |

Top statement

Q19b. The following is a list of different ways that rhino horn might be obtained. Please indicate which phrase(s) applies to the process of getting horn from rhinos.
 – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities, Past 12 Months Rhino Buyers/ Rhino Ever Users: Total sample + Booster sample

▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

3.3 PANGOLINS



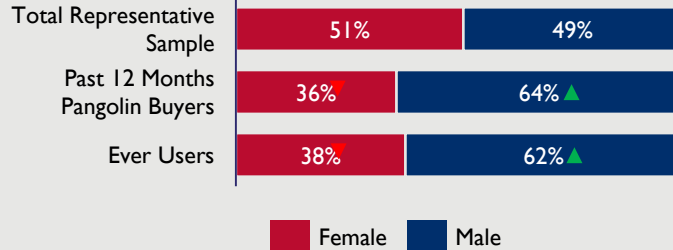
USAID
FROM THE AMERICAN PEOPLE



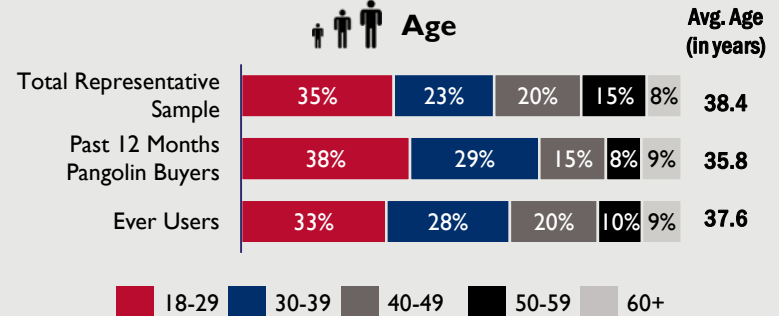
Pangolin Past 12 Months Buyers' Profile (I)

The buyers of parts and/or products of pangolin are significantly more male, are younger and have a higher income vs the general population. Pangolin users are slightly older and have a higher income than buyers.

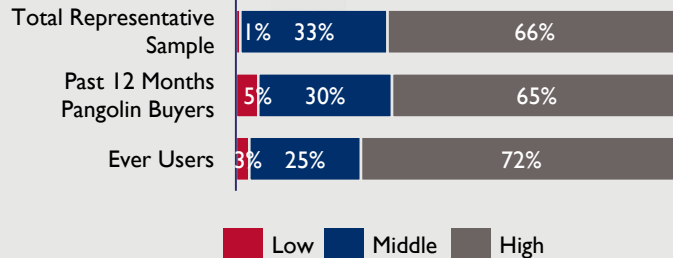
Gender



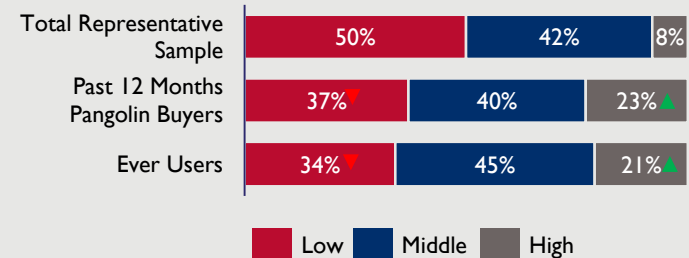
Age



Education



Income



S2. Age, S3. Gender, S4. Income, S5. Education – **Weighted data**

Base: Total representative sample, n=1400, Past 12 Months Pangolin Buyers, n=83, Ever Users, n=115

▲ ▼ Statistically significant difference: higher / lower at 95 confidence level vs Total

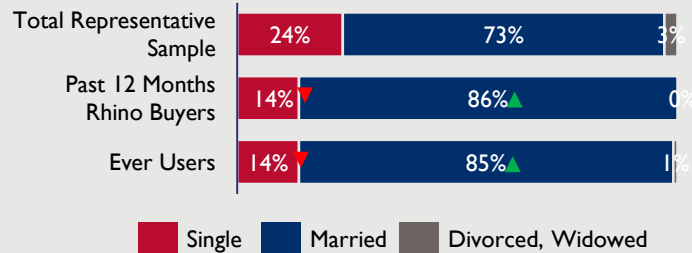


Pangolin Past 12 Months Buyers' Profile (2)

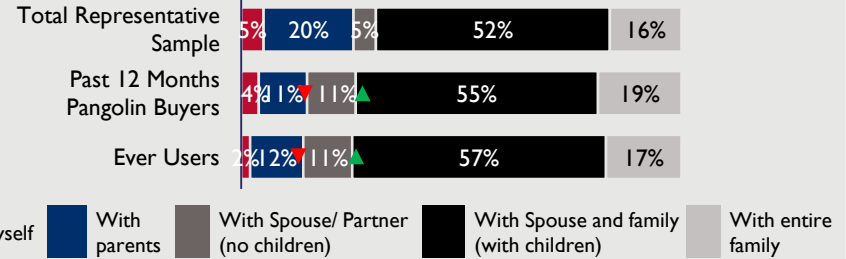
Pangolin Past 12 Months Buyers are significantly more likely to be married and are more represented in Da Nang than in the general population. In terms of behavior, they also travel significantly more regularly outside Vietnam vs the general population. Pangolin users have a similar marital status, household composition and travel behavior as buyers, but they are more represented in Ho Chi Minh City, and less so in Da Nang vs buyers.



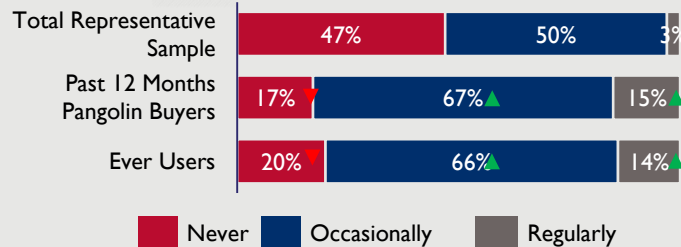
Marital Status



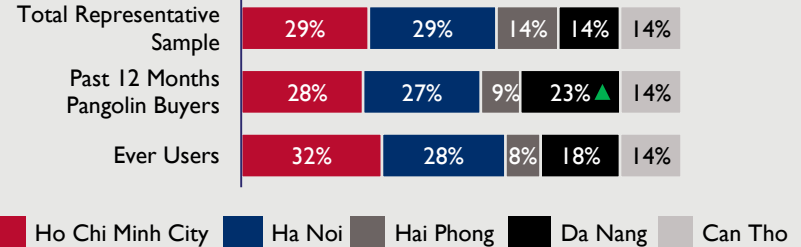
Household Composition



Travel outside Vietnam



City



Q22. Marital Status, Q23. Household Composition, Q26. Travel Overseas – **Weighted data**

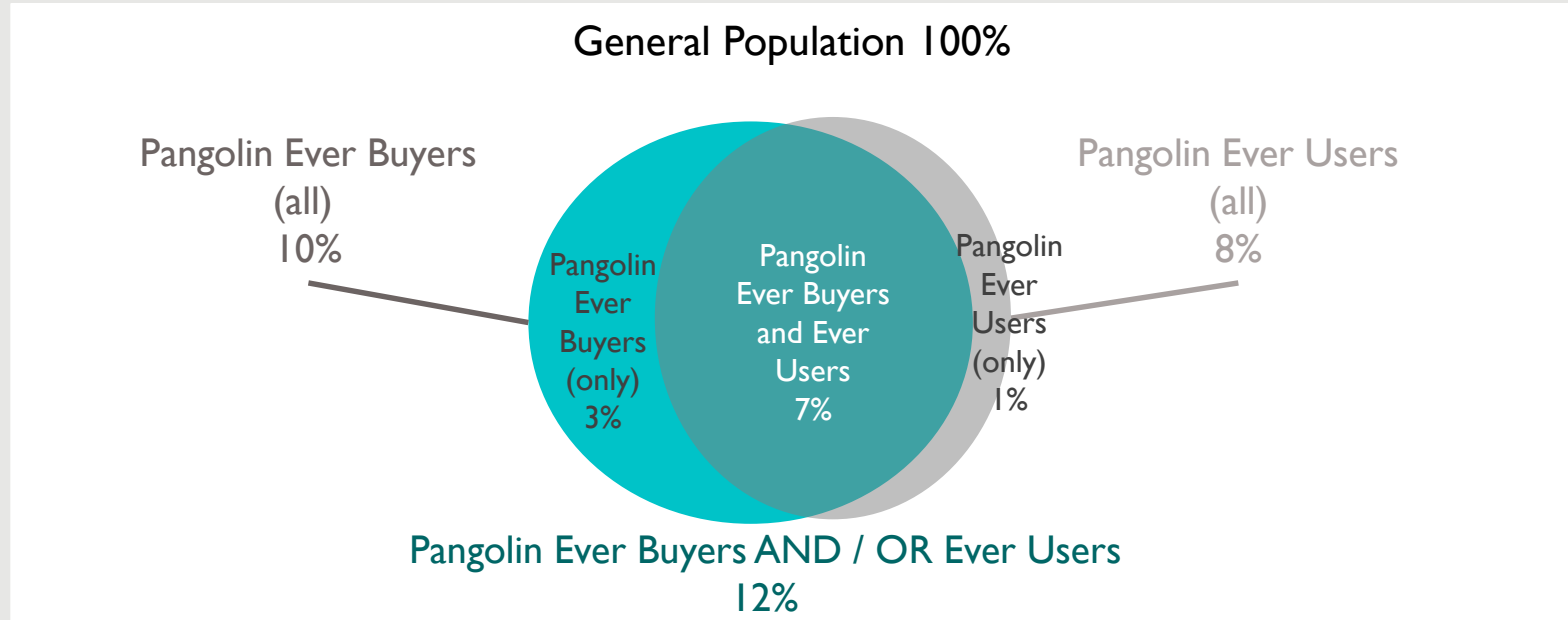
Base: Total representative sample, n=1400, Past 12 Months Pangolin Buyers, n=83, Ever Users, n=115

▲▲ Statistically significant difference: higher / lower at 95 confidence level vs Total



Purchase/Usage Penetration of Parts and/or Products of Pangolin

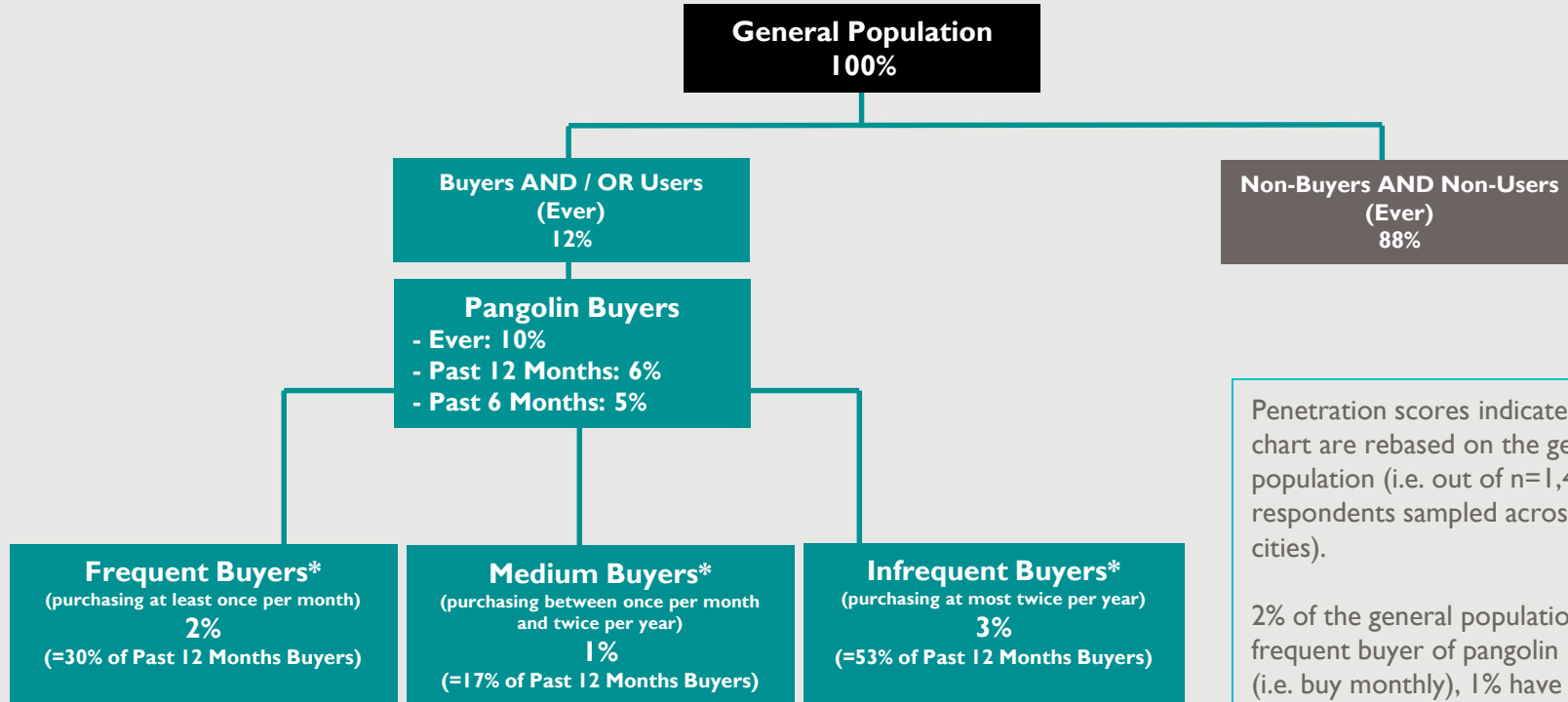
Two thirds of the buyers of pangolin parts and/or products are also users.



Q1a, Q1b, Q2. Ever purchase, Q6. Ever usage – **Weighted data**
Base: Total representative sample, n=1400 in five selected cities



Purchase Penetration and Intention



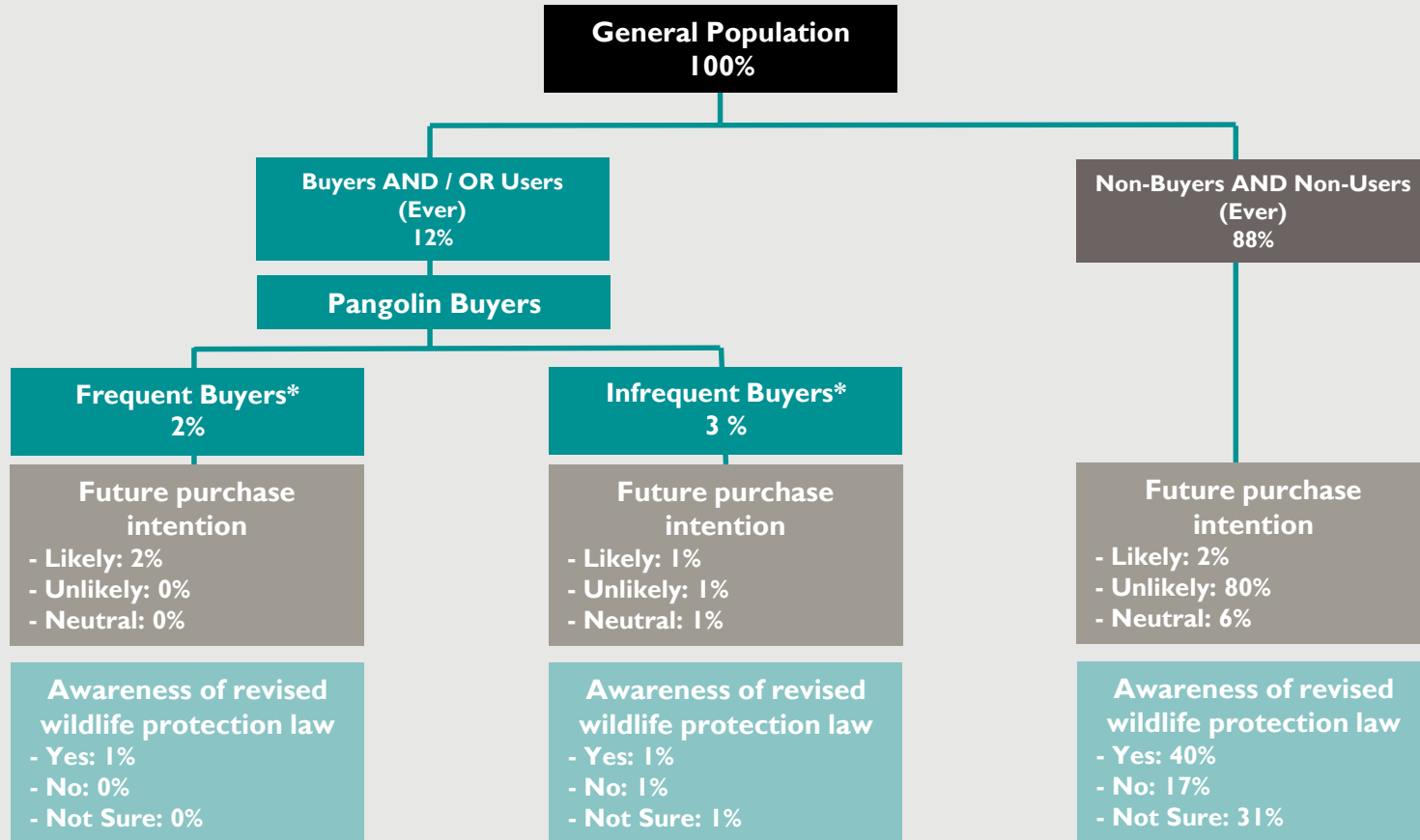
Penetration scores indicated in this chart are rebased on the general population (i.e. out of n=1,400 respondents sampled across five cities).

2% of the general population is a frequent buyer of pangolin products (i.e. buy monthly), 1% have a medium frequency of purchase and 3% is infrequent (i.e. buy twice per year or less).

* The groupings of buyers by frequency includes past 12 months buyers only.

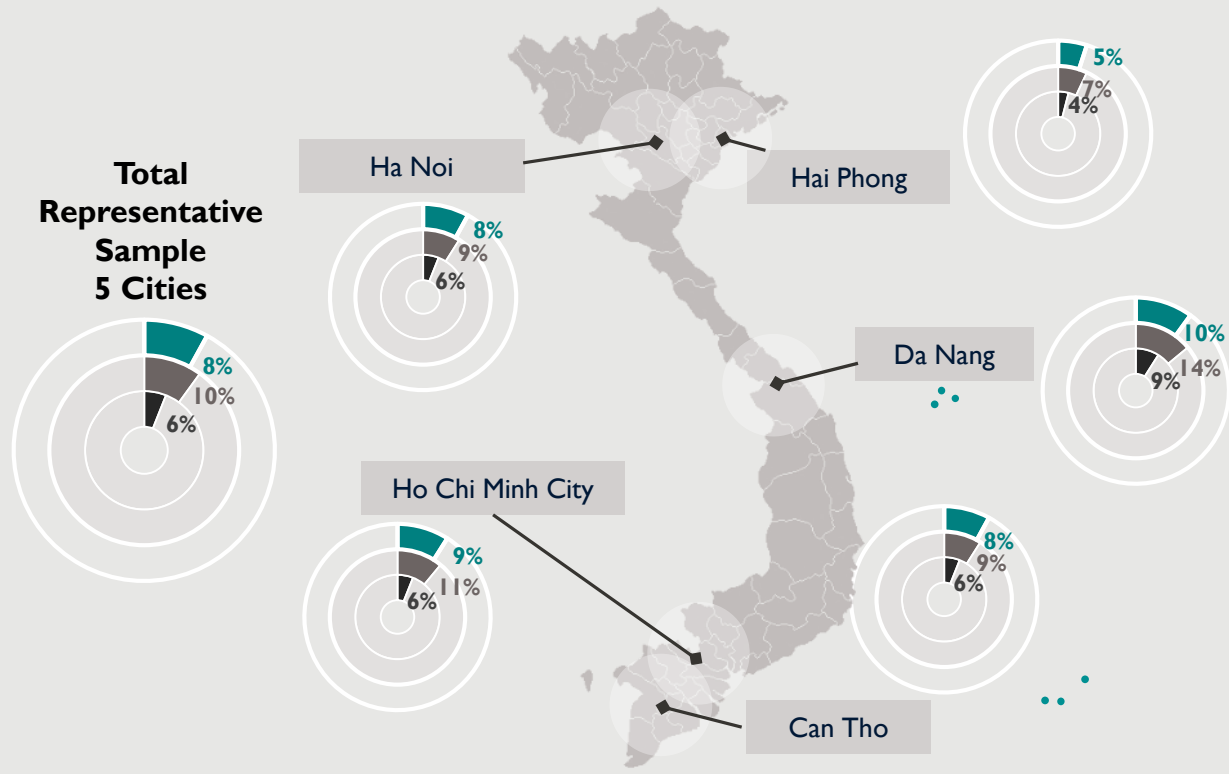


Purchase Penetration and Intention





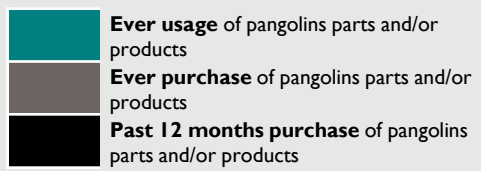
Past Purchase of Pangolin Parts and/or Products



Ever usage of pangolin parts and/or products is similar to Ever purchase (i.e., 8 percent claim to have used these products in the past).

Overall, 8% of the respondents claim to have ever purchased pangolin parts and/or products, and 6% purchased in the past 12 months.

Amongst the five selected cities, Ever Buyers of pangolin parts and/or products are the most represented in Da Nang (14%), and the least represented in Hai Phong (7%).



Q1a/Q1b/Q2. Ever Bought, Q3. And have you bought products or parts of the following species, for yourself or someone else, in the past 12 months? – **Weighted data**
Base: Total representative sample, n=1400 in five selected cities, n=400 in Ho Chi Minh City, n=400 in Ha Noi, n=200 in Hai Phong, n=200 in Da Nang, n=200 in Can Tho

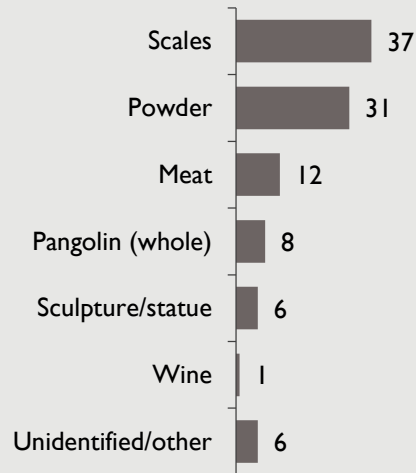


Parts and/or Products of Pangolin Purchased

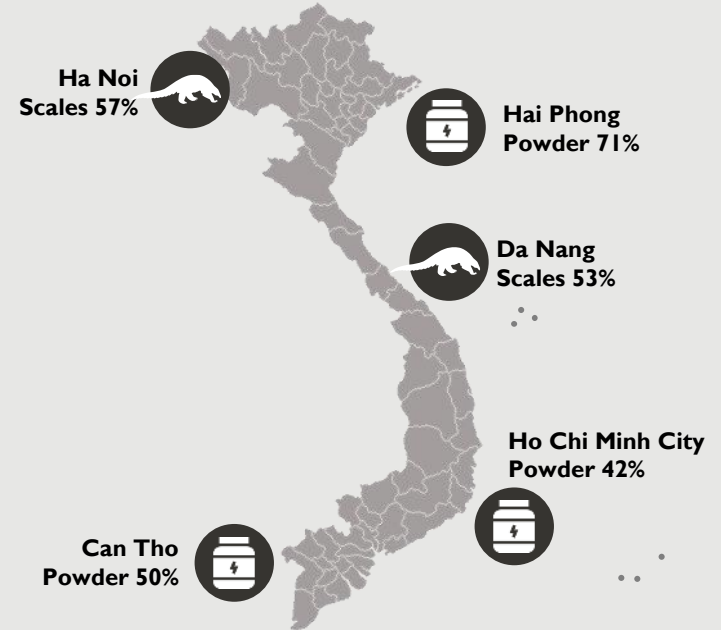
Among those who have bought pangolin parts and/or products in the past 12 months

Scales and powder are the main parts and/or products of pangolins purchased overall. There are some differences by city, i.e., scales is the main product purchased in Ha Noi and Da Nang, while powder is the main product purchased in HCMC, Hai Phong and Can Tho.

Main Parts and/or Products of Pangolin Purchased (% of Respondents)



Top Purchased Item by City



Q8a. Q8b. You said that you have bought parts and/or products of pangolin in the past 12 months. Thinking about your last purchase, please indicate more specifically what parts or products of pangolin you purchased. How many/much did you buy, and for how much? **[Open-ended question] – Weighted data**

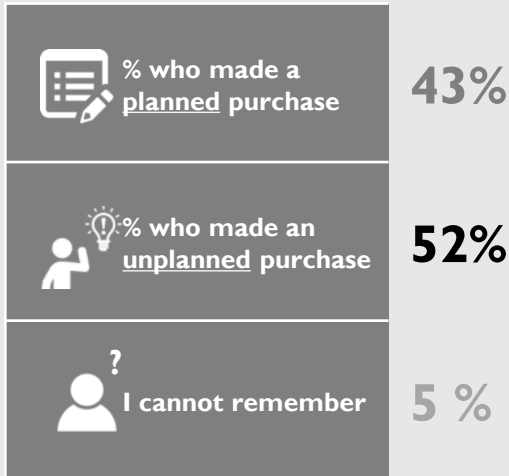
Base: Past 12 Months Pangolin Buyers, n=83 in five selected cities



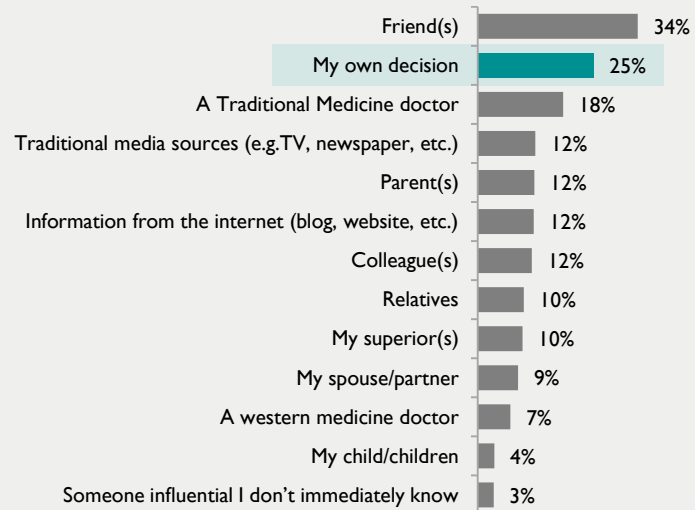
Purchase Decision and Influencers

Among those who have bought pangolin parts and/or products in the past 12 months

Pangolin parts and/or products are unplanned purchases for half of the buyers. Overall, the purchase decision is made upon the recommendation of friends or by the buyers themselves. 18% of the buyers are motivated by a Traditional Medicine doctor.



Who had Motivated Your Purchase Decision? Among those who purchased pangolin parts/products



Q13a. Please think about the last time you purchased parts and/or products from the following species. Was it a planned or unplanned decision to purchase the products? – Pangolin – **Weighted data**

Q13b. Thinking about this last purchase, who had motivated your purchase decision? – **Weighted data**

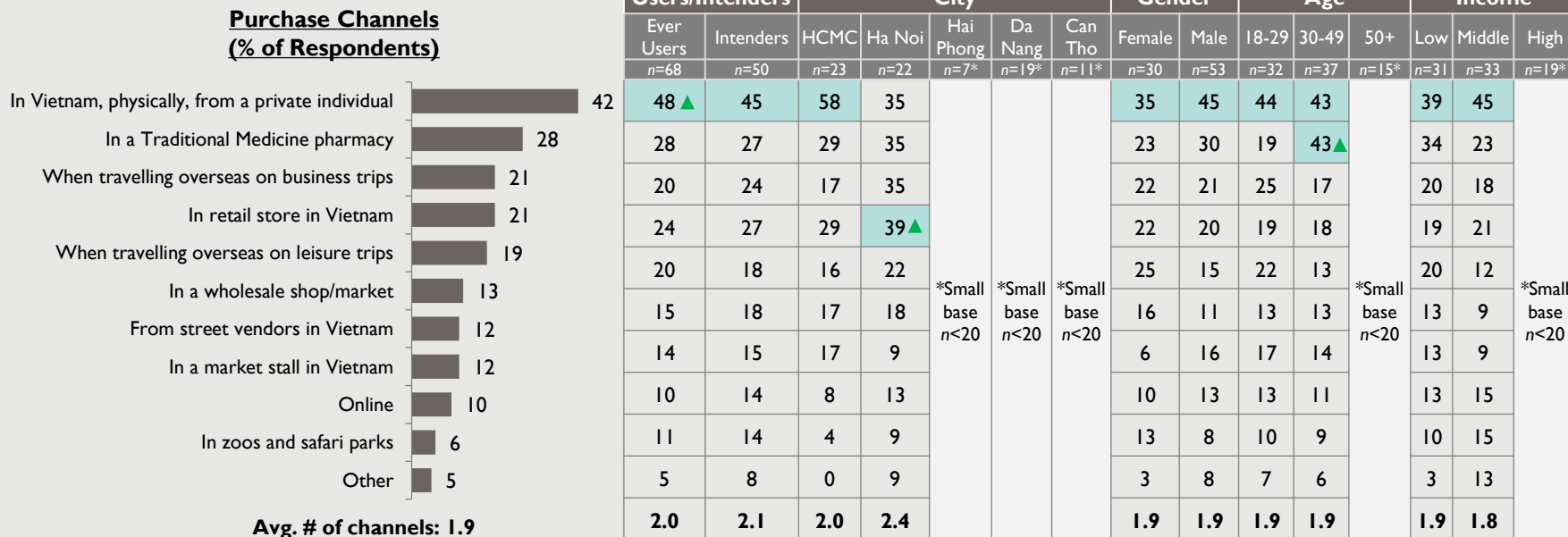
Base: Past 12 Months Pangolin Buyers, n=83 in five selected cities



Purchase Channels – Pangolin Products and/or Parts

Among those who have bought pangolin parts and/or products in the past 12 months

While pangolin parts and/or products are mainly purchased from private individuals in Vietnam, Traditional Medicine pharmacies are also common purchase channels, particularly for buyers aged 30-49. Moreover, buyers in Ha Noi purchase pangolin products significantly more in retail stores vs the general population, and they are also those who use the highest average number of channels. Online is not a major channel of purchase.



Q12. Where did you purchase products and/or parts of pangolins? – **Weighted data**

Base: Past 12 Months Pangolin Buyers, n=83 in five selected cities

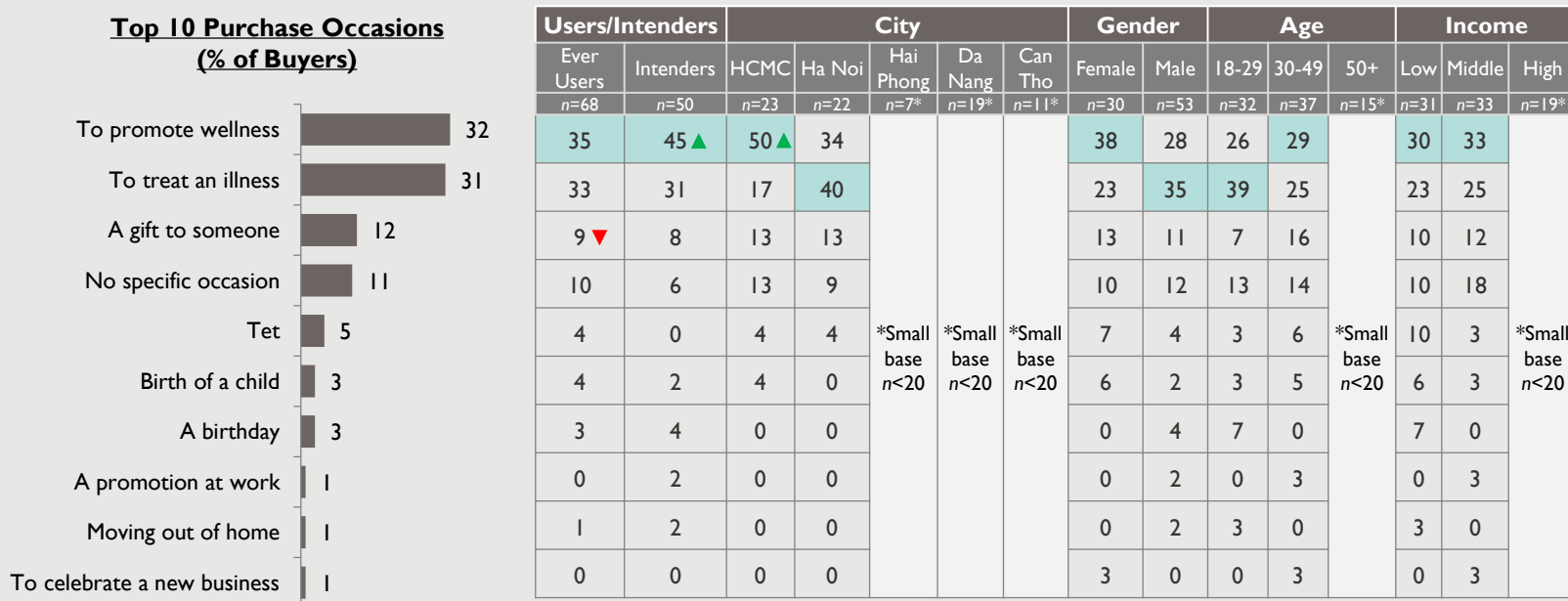
Top purchase channel



Purchase Occasions

Among those who have bought pangolin parts and/or products in the past 12 months

Parts and/or products of pangolins are most often purchased for health and wellness, i.e., “to promote wellness” and “to treat an illness” are the top two occasions across all cities and sub-groups.



Top purchase occasion

Q14. Thinking again about the last purchase, what was this purchase meant for? – **Weighted data**

Base: Past 12 Months Pangolin Buyers, n=83 in five selected cities

▲ ▼ Statistically significant difference: **higher** / **lower** at 95 confidence level vs Total – *Small base: n<20

Amount Paid and Willingness to Pay More Among those who have bought / used pangolin parts and/or products in the past 12 months

Note: price measurements of (partly) illegal products can provide inconsistent results and have to be reviewed with caution.

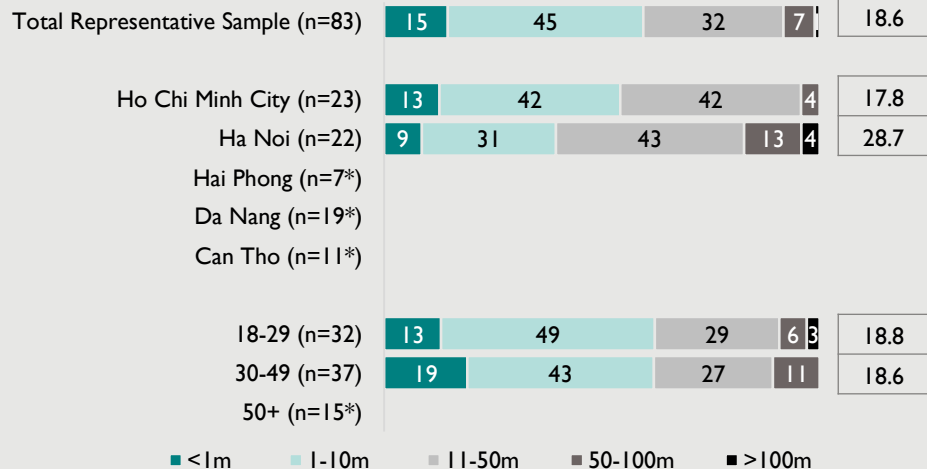


On average, the Past 12 Months Buyers claim to have spent 18.6 million VND (approx. USD\$799) on their last purchase of parts and/or products of pangolin. The amount spent is highest in Ha Noi (28.7 million VND = USD\$1,233), where pangolin scales are the main product purchased. Two-thirds of the buyers (63%) are willing to pay between 0% and 10% more than the actual price for the next purchase (of the same product).

Money Spent on Last Purchase (VND)

(% of Buyers)

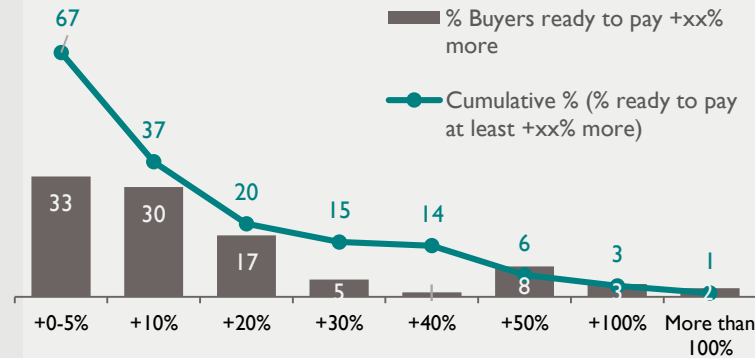
Average spent
(in million VND)



How Much More Would You Consider Paying?

(% of Buyers)

Average % ready to pay more: 17.6%



Q8c. You said that you have bought parts and/or products of pangolins in the past 12 months. Thinking about your last purchase, how many/much did you buy, and for how much? – **Weighted data**

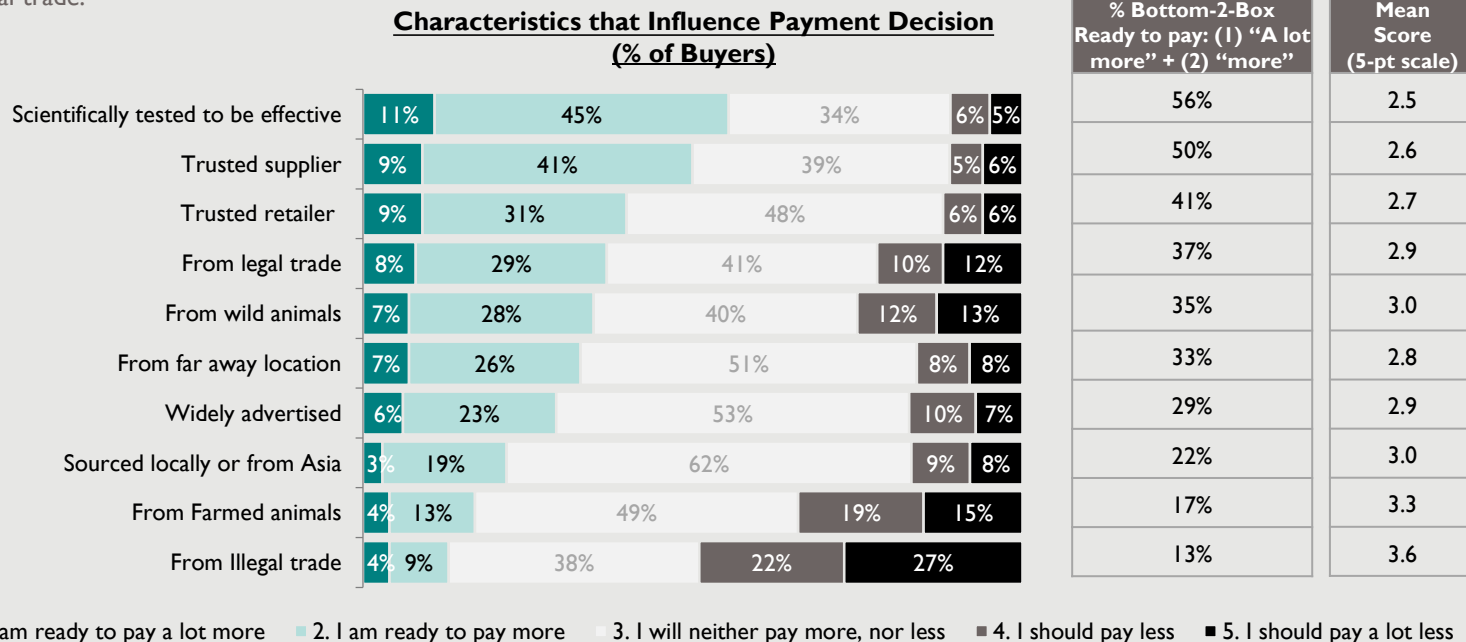
Q16a. Thinking about your last purchase, how much more would you consider to pay in order to buy that item? – **Weighted data**



Willingness to Pay More for Specific Product Attributes

Among those who have bought /used pangolin parts and/or products in the past 12 months

Over half of the buyers and/or users of parts and/or products of pangolins are ready to pay more if the product's efficacy is scientifically tested or if it comes from a trusted supplier. On the other hand, half think that they should pay less or a lot less if the product comes from illegal trade.



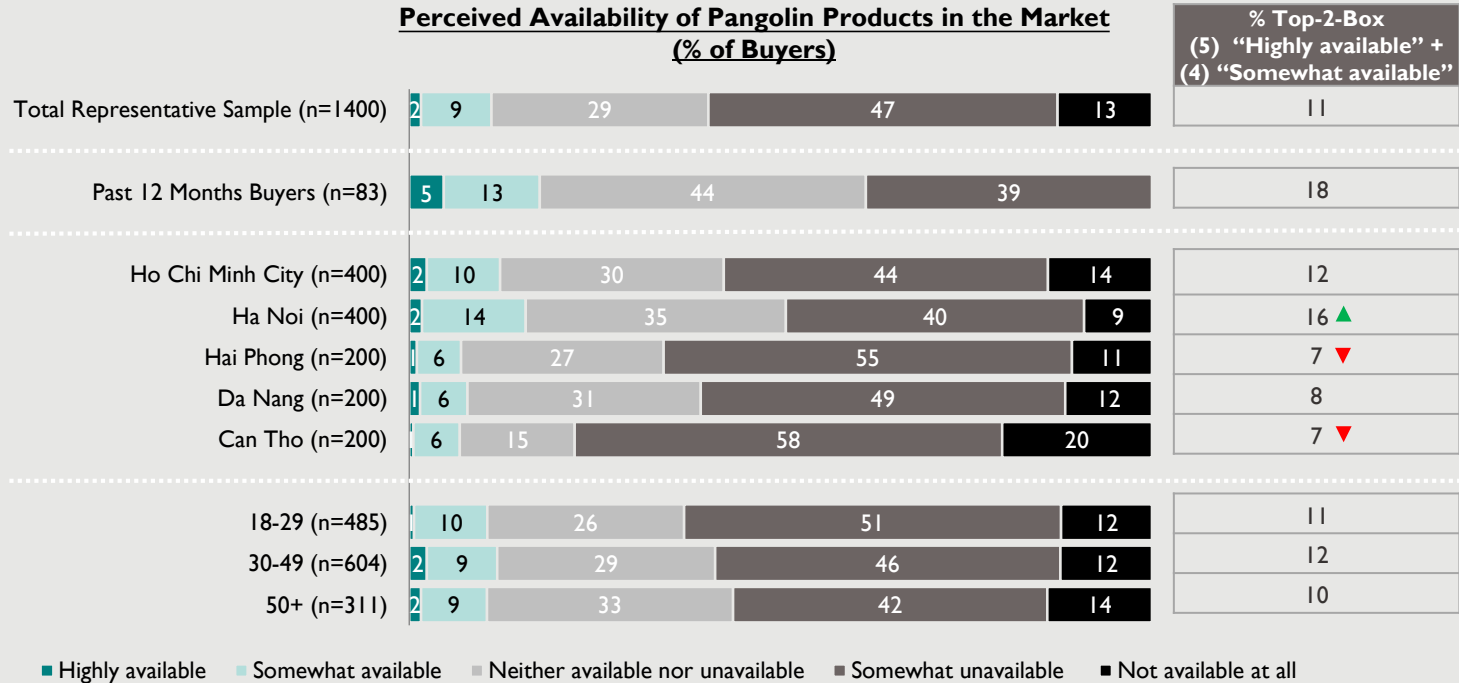
Q15a. You said that you bought/used/may buy parts and/or products of pangolins, to which extent do the following characteristics influence your payment decision? – **Weighted data**

Base: Pangolin ever buyers and/or ever users and/or intenders, n=278 in five selected cities



Market Availability

Overall, pangolin parts and/or products are not perceived to be easily available. Even among buyers, less than two in ten agree that these products are highly or somewhat available.



Q18.To which extent are products and/or parts of the following species available to buy/find in Vietnam? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

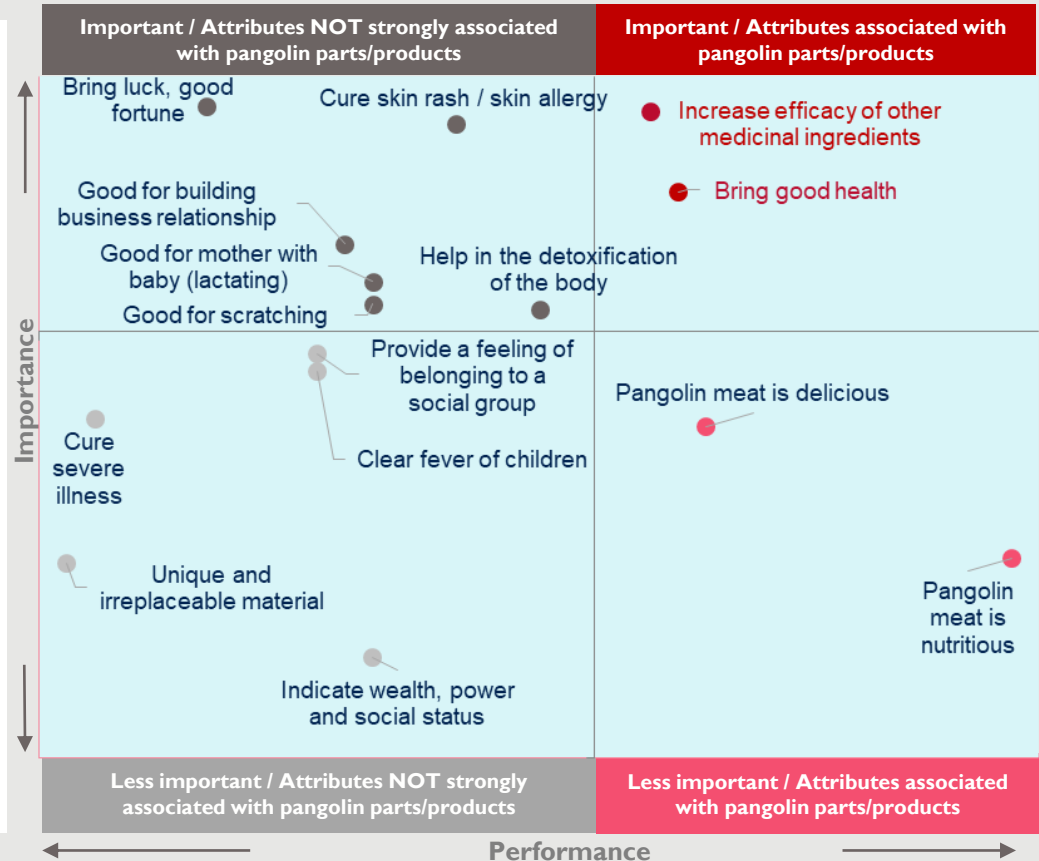
▲ ▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Drivers Analysis – Among the General Population

Importance of different attributes vs performance on these attributes of pangolin parts and/or products

- The general population in the five cities surveyed mostly associate pangolin products with both their health benefits, i.e., “increase efficacy of other medicinal ingredients” and “bring good health,” and different aspects of pangolin meat, i.e., “pangolin meat is delicious” and “pangolin meat is nutritious.”
- Although pangolin meat is strongly perceived as being nutritious and delicious, these aspects are not seen as being important and hence they are unlikely to drive the general population to eat pangolin meat. However, “increasing efficacy of other medicinal ingredients” and “bringing good health” are seen as important attributes and are also strongly associated with pangolin products, hence they represent primary drivers of purchase and/or usage.
- It is worth noting that other attributes such as helping in the detoxification of the body and curing skin rashes/allergies are important as well, and represent secondary drivers for the purchase of pangolin products.

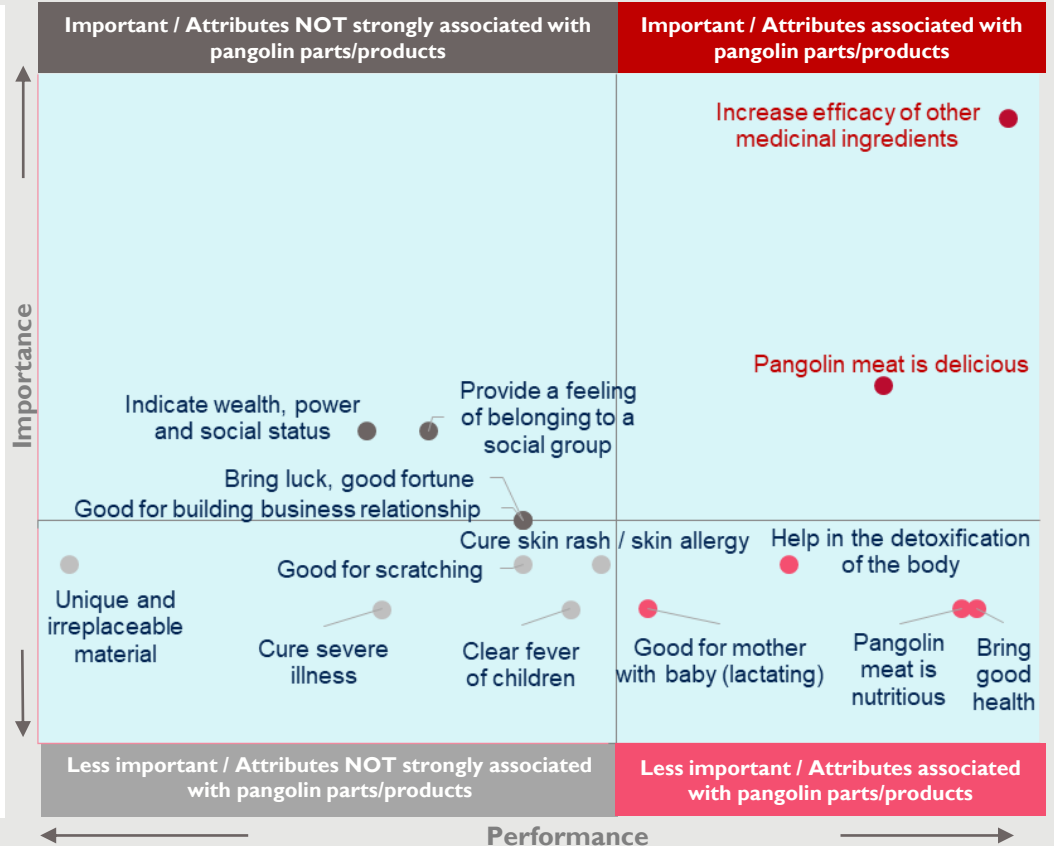




Drivers Analysis – Among Past 12 Months Buyers

Importance of different attributes vs performance on these attributes of pangolin parts and/or products

- The Past 12 Months Buyers associate more attributes with pangolin than the general population do, particularly health benefits, nutritional aspects and being good for mothers when lactating.
- Among these attributes, “increase efficacy of other medicinal ingredients” is seen as highly important and is the main driver for buyers. The perception that “pangolin meat is delicious” is another important driver of usage/purchase.
- However, being good for mothers with babies (for lactation), the meat being nutritious and bringing good health are seen as less important and are therefore less likely to drive purchase. Buying pangolin products to help lactation is an occasional purchase, hence its low importance.
- It is worth noting that other attributes such as curing skin rashes/allergies and providing a feeling of belonging are important as well, and represent secondary drivers for the purchase of pangolin products.





Statement Groupings and Narratives for Pangolin

Narrative Analysis for Pangolin (to reveal attitudes and motivations)

People's decisions and behaviors are underlined by narrative frames that explain and justify them. Using **structural modeling (Principal Component Analysis)**, we identified stable combinations of attitudes, perceptions and motivations that exist in people's minds when they think about specific wildlife products or explain their attraction to them. Narratives could be interpreted as drivers/motivators or deterrents. The narratives for pangolin are designed based on the following groups of statements, all indicating a **plus** score, i.e., agreement with the respective statement:

Statement groupings

| | |
|--|-------|
| Indicate wealth, power and social status | 0.803 |
| Provide a feeling of belonging to a social group | 0.767 |
| Are good for building business relationships | 0.714 |
| Are a unique and irreplaceable material | 0.705 |
| Bring luck, good fortune | 0.677 |

| | |
|---|-------|
| Are good for scratching | 0.735 |
| Cure skin rash / skin allergy | 0.722 |
| Clear fever of children | 0.711 |
| Help in the detoxification of the body | 0.548 |
| Are good for mother with baby (lactating) | 0.547 |

| | |
|-----------------------------|-------|
| Pangolin meat is delicious | 0.739 |
| Pangolin meat is nutritious | 0.732 |

| | |
|--|-------|
| Cure severe illness | 0.675 |
| Increase efficacy of other medicinal ingredients | 0.516 |
| Bring good health | 0.515 |

Narratives

Narrative 1: Social and unique materials
 Pangolin parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also have other benefits such as being good for building business relationships, and I believe they bring luck. This makes pangolin a unique material.

Narrative 2: Health and wellness
 I believe that pangolin parts or products have various health and wellness benefits: they are particularly good for scratching, they cure skin rashes and allergies, clear the fever of children and help in the detoxification of the body. Additionally, they are a good help for lactating.

Narrative 3: Pangolin meat
 I believe that pangolin meat is both delicious and nutritious.

Narrative 4: Medical and efficacy
 Pangolin products bring good health. They are efficient for curing severe illnesses and they increase the efficacy of other medicinal ingredients at the same time.



Motivational Narratives Analysis – Pangolin

Definition of Labels and Narratives

| Sub-group | Label (in the map) | Sub-group | Label (in the map) |
|------------------|----------------------------|-------------------------------|--------------------------|
| Ho Chi Minh City | <i>HCMC</i> | Female | <i>Female</i> |
| Ha Noi | <i>Ha Noi</i> | Male | <i>Male</i> |
| Hai Phong | <i>Hai Phong</i> | Past 12 Months Buyers | <i>P12M Buyers</i> |
| Da Nang | <i>Da Nang</i> | Ever Users | <i>Ever Users</i> |
| Can Tho | <i>Can Tho</i> | Future Purchase Intenders | <i>Intenders</i> |
| 18-29 years old | <i>Millennials (18-29)</i> | Future Purchase Non-intenders | <i>Non-Intenders</i> |
| 30-39 years old | <i>30-39</i> | Frequent Buyers | <i>Frequent Buyers</i> |
| 40-49 years old | <i>40-49</i> | | |
| 50-59 years old | <i>50-59</i> | Infrequent Buyers | <i>Infrequent Buyers</i> |
| 60-69 years old | <i>60-69</i> | | |

Narratives

Nar1: Pangolin parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also have other benefits such as being good for building business relationships, and I believe they bring luck. This makes pangolin a unique material.

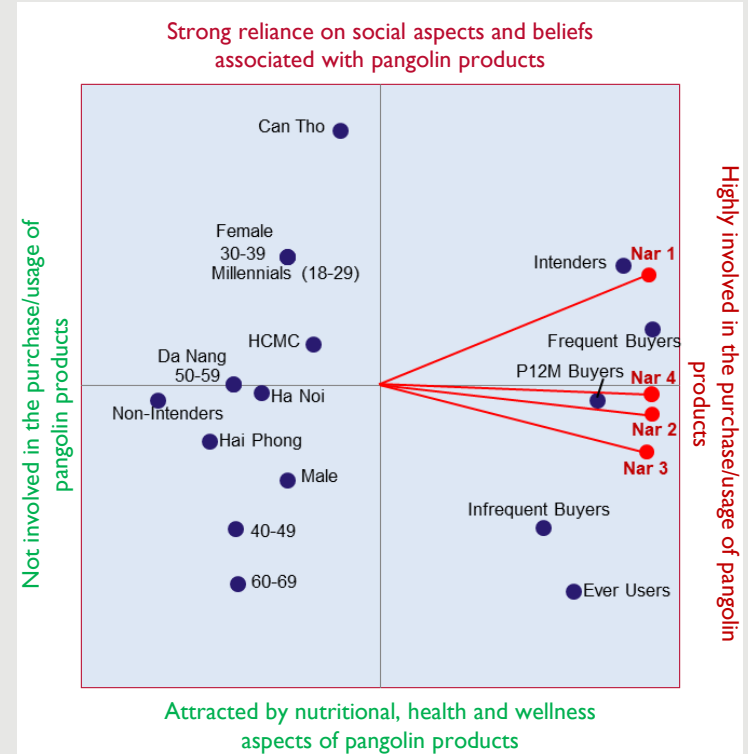
Nar2: I believe that pangolin parts or products have various health and wellness benefits: they are particularly good for scratching, they cure skin rashes and allergies, clear the fever of children and help in the detoxification of the body. Additionally, they are a good help for lactating.

Nar3: I believe that pangolin meat is both delicious and nutritious.

Nar4: Pangolin products bring good health. They are efficient for curing severe illnesses and they increase the efficacy of other medicinal ingredients at the same time.

Q17c. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of pangolins. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**





Motivational Narratives Analysis – Pangolin

Analysis

- Overall, the Past 12 Months Buyers, Frequent Buyers and Intenders are much more related to all the narratives (i.e., they give higher ratings to all these narratives) than the other sub-groups. However these groups have different mindsets on pangolins.
- Users and Infrequent Buyers relate more to Narrative 3 (strongly focused on the nutritious and culinary aspects of pangolin meat). Buyers are closest to Narrative 4, indicating various health and wellness benefits (for minor ailments) and Narrative 2, focusing on the efficacy of pangolin products for treating severe illnesses.
- Frequent Buyers share the mindset described in Narrative 4 (efficacy), but also relate to Narrative 1 which describes the social benefits provided by pangolin products, i.e., pangolin products indicate wealth, status and provide the feeling of belonging to a social group. Intenders closely relate to Narrative 1 as well.
- While planning communication campaigns targeting potential buyers (Intenders) and Frequent Buyers, Narratives 1 and 4 should be effectively countered by communicating messages on legality/penalties, but also by showing that the perceived medicinal efficacy of these products is a misconception (and if relevant, that it is not scientifically proven).

Narratives

Nar1: Pangolin parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also have other benefits such as being good for building business relationships, and I believe they bring luck. This makes pangolin a unique material.

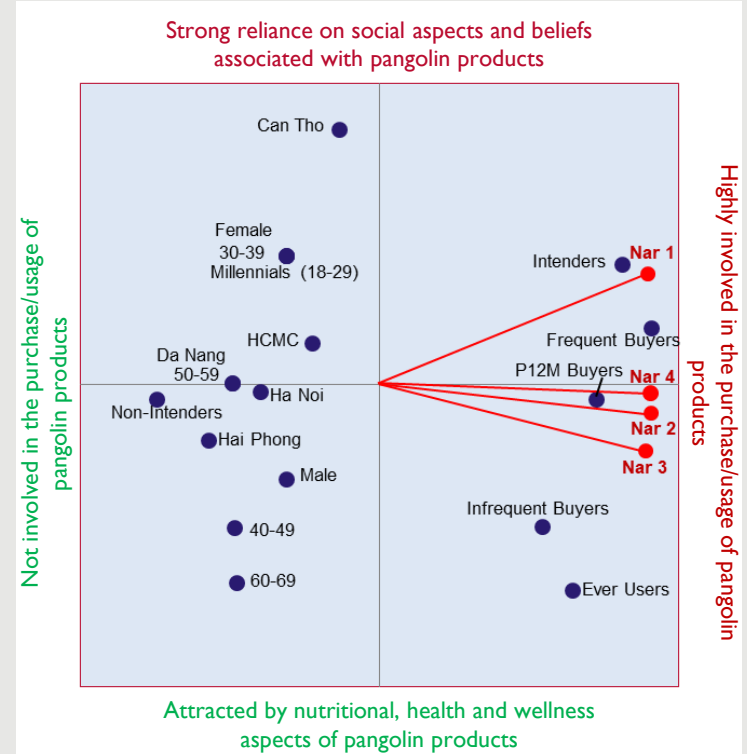
Nar2: I believe that pangolin parts or products have various health and wellness benefits: they are particularly good for scratching, they cure skin rashes and allergies, clear the fever of children and help in the detoxification of the body. Additionally, they are a good help for lactating.

Nar3: I believe that pangolin meat is both delicious and nutritious.

Nar4: Pangolin products bring good health. They are efficient for curing severe illnesses and they increase the efficacy of other medicinal ingredients at the same time.

Q17c. Please indicate to what extent do you agree or disagree with each of the following statements on parts and/or products of pangolins. Please use a scale of 1 to 5 where 1 means that you “strongly disagree” and 5 means that you “strongly agree” with the statement. – **Weighted data**

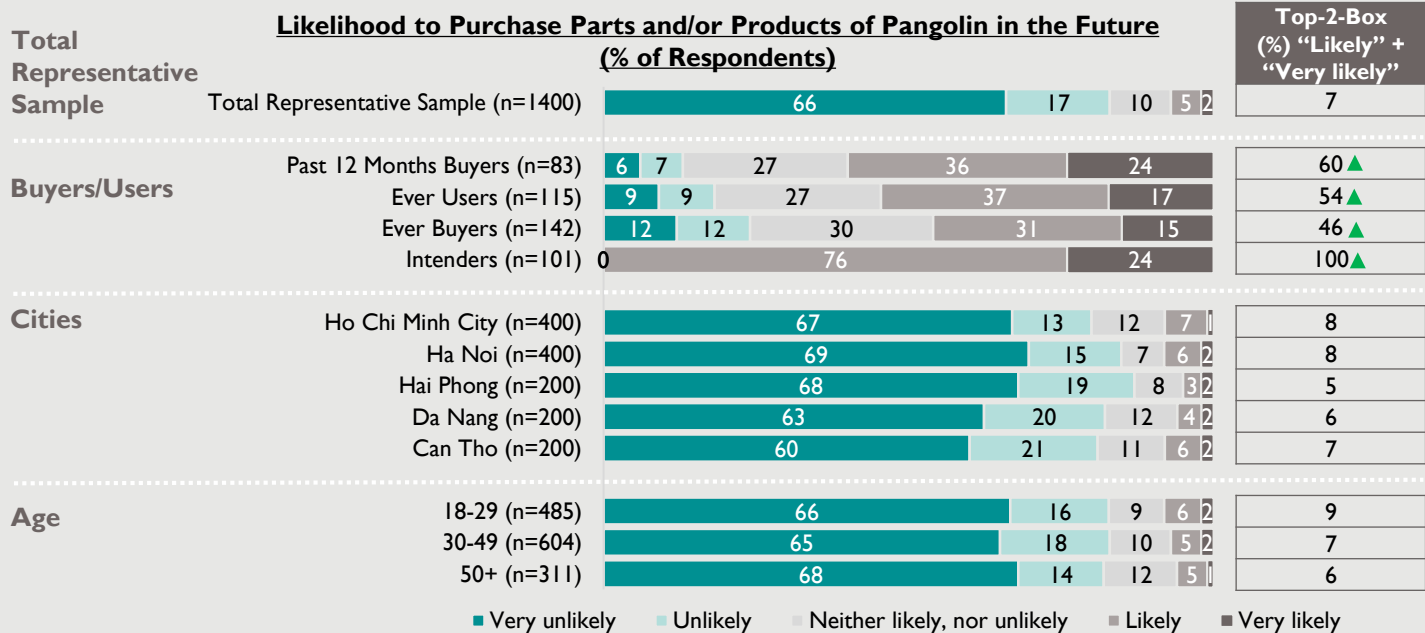
Base: Total representative sample, n=1400 in five selected cities. **For more details on methodology, please refer to Chapter 1b. Methodology**





Future Purchase Intention

7% of the respondents intend to purchase pangolin parts and/or products in the future. This is mostly driven by users and buyers. Among past 12 months buyers, six in ten intend to repeat their purchase in the future, indicating a relatively strong demand for pangolin parts and/or products among this group.



Q5. How likely will you be to purchase parts and/or products from the following species in the future? – Pangolin – **Weighted data**

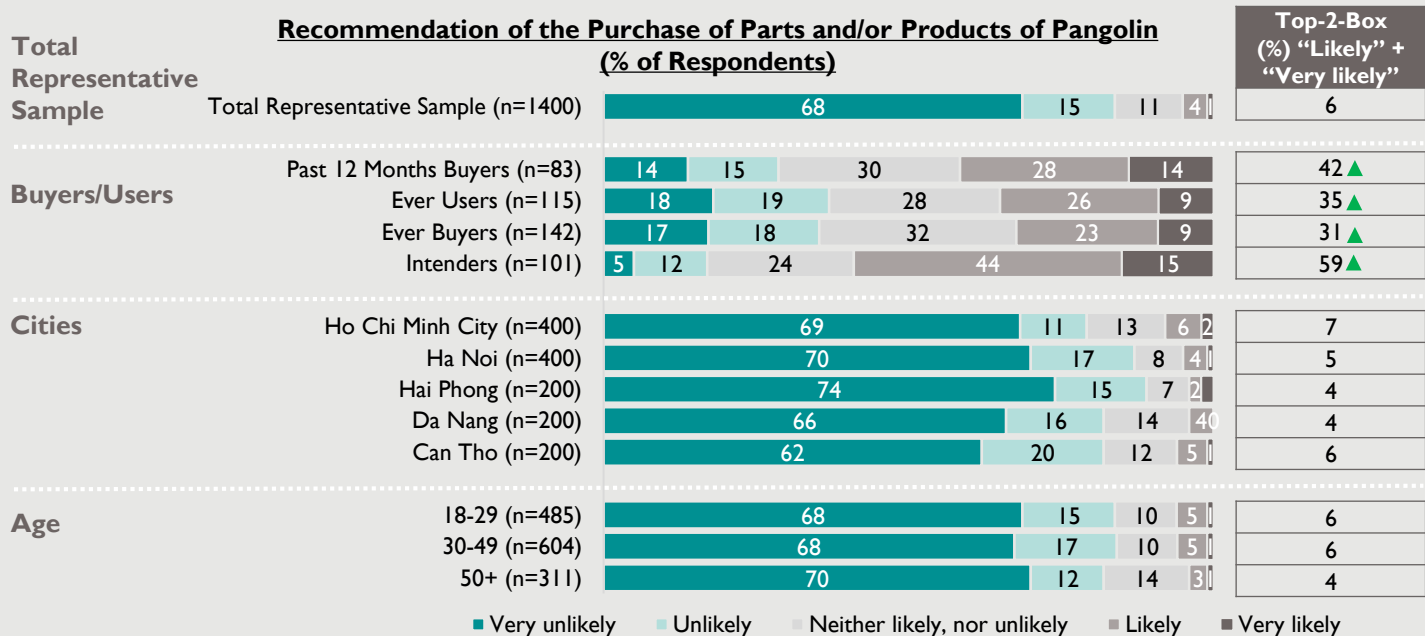
Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Recommendation

Overall, the intention to recommend purchasing parts and/or products of pangolin is positively correlated with the intention to purchase. Less than one in ten (6%) are willing to recommend the purchase or usage of parts and/or products of pangolin, with no significant differences across cities and age groups. Recommendation is mostly driven by the intenders, buyers and to a lesser extent by users.



Q10. How likely are you to recommend purchasing parts and/or products of the following species or products made of these ingredients to family members or friends? – Pangolin – **Weighted data**

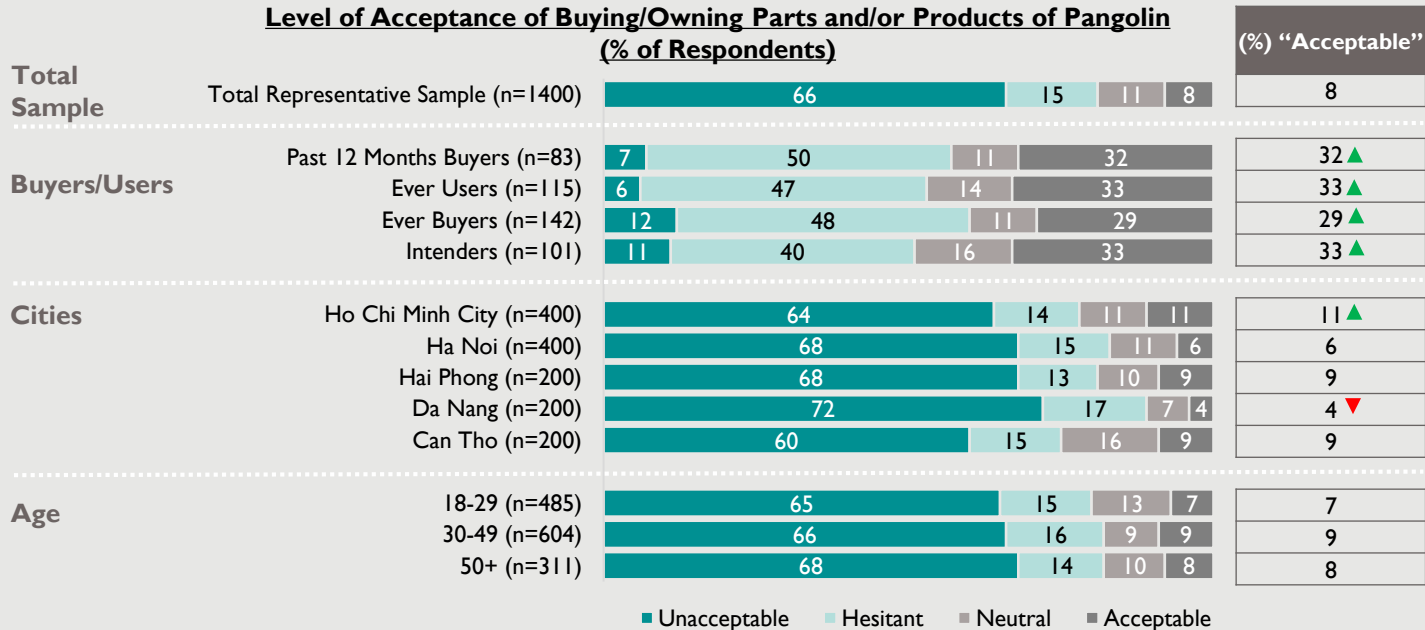
Base: Total representative sample, n=1400 in five selected cities

▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box only)



Acceptability

Less than one in ten (8%) think that it is acceptable to purchase or use parts and/or products of pangolin. It is worth noting that half of the buyers and users are hesitant, indicating potentially ambivalent behavior/mindset (i.e., they somehow hesitate to say that it is unacceptable, but they still purchase/use).



Q9. Some people enjoy buying and using products made of [elephant/rhino/pangolin], some strongly reject them. How acceptable do you find buying or using products and/or parts of the following species? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

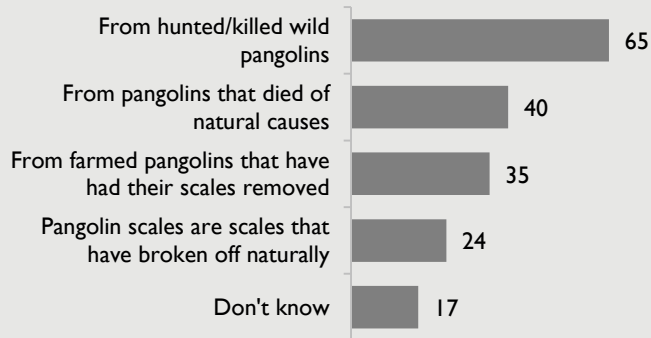
▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total (on Top-2-Box "Acceptable" + "Neutral" only)



Pangolin Product Knowledge

Most respondents know that pangolin scales are obtained from hunted/killed wild pangolins. However, it is worth noting that buyers, users and intenders believe significantly more than the general population that scales are obtained from pangolins that died of natural causes, from farmed pangolins or that they have broken off naturally. This indicates a lack of product knowledge among those who buy/use parts and/or products of pangolin.

Knowledge of the Process of Obtaining Pangolin Scales (% of Respondents)



| Pangolin Buyers/ Users | | | | City | | | | | Gender | | Age | | | Income | | |
|------------------------|---------------------|----------------------|--------------------|----------------|-----------------|--------------------|------------------|------------------|-----------------|---------------|----------------|----------------|--------------|--------------|-----------------|---------------|
| PI2M Buyers n=83 | Ever Users n=115 | Ever Buyers n=142 | Intenders n=101 | HCM C n=400 | Ha Noi n=400 | Hai Phong n=200 | Da Nang n=200 | Can Tho n=200 | Female n=710 | Male n=690 | 18-29 n=485 | 30-49 n=604 | 50+ n=311 | Low n=703 | Middle n=582 | High n=115 |
| 60 | 61 | 57 | 57 | 66 | 68 | 68 | 66 | 53▼ | 63 | 68 | 66 | 66 | 62 | 65 | 66 | 61 |
| 54▲ | 57▲ | 54▲ | 52▲ | 37 | 43 | 42 | 35 | 38 | 38 | 41 | 42 | 39 | 39 | 37 | 41 | 48 |
| 43 | 49▲ | 44▲ | 46▲ | 34 | 39 | 34 | 33 | 32 | 36 | 34 | 35 | 37 | 30▼ | 33 | 36 | 41 |
| 43▲ | 45▲ | 41▲ | 46▲ | 22 | 25 | 27 | 17▼ | 29 | 24 | 24 | 26 | 23 | 22 | 20▼ | 26 | 37▲ |
| 7▼ | 5▼ | 10▼ | 6▼ | 15 | 12▼ | 19 | 23▲ | 21 | 19 | 15 | 15 | 16 | 22▲ | 19 | 15 | 15 |

Top statement

Q19c. The following is a list of different ways that pangolin scale might be obtained. Please indicate which phrase(s) applies to the process of getting scales from pangolins. – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities

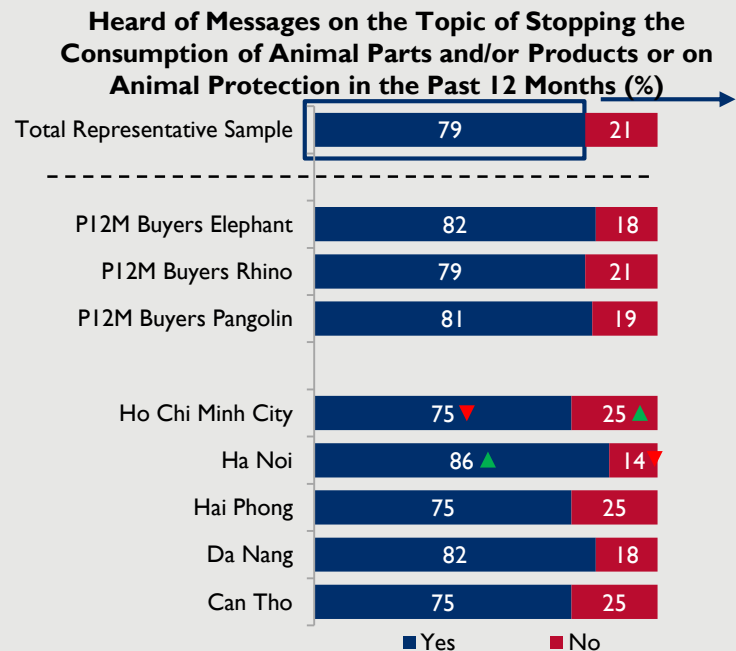
▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total



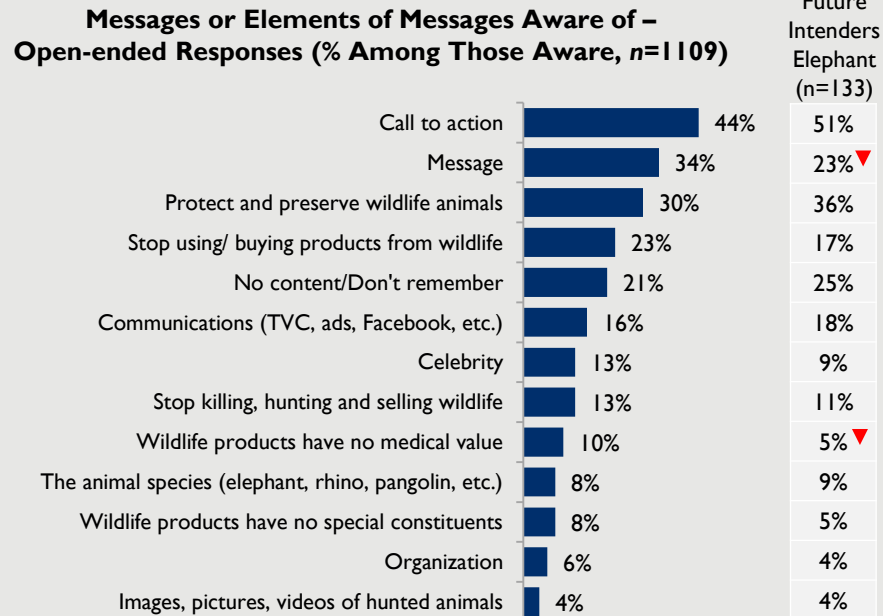
— 4. AWARENESS AND PERCEPTION OF REGULATIONS

Awareness of Messages (Unprompted)

A majority of respondents claim to have heard messages on the topic of stopping the consumption of animal parts and/or products in the past 12 months, particularly in Ha Noi. However, recall is mostly centered around generic elements of messages, such as a call to action (without further details) and the protection of wildlife rather than the messages in detail. Those likely/very likely to buy in the future (intenders) remember significantly less the message.



Q20a. Have you heard or seen any messages or materials on the topic of stopping the consumption of wildlife parts and /or products, or on wildlife protection, in the past 12 months? – **Weighted data**
 Base: Total representative sample, n=1400 in five selected cities (Base of Past 12 Months Buyers of rhino = Total sample + Booster sample), ▲▼ Statistically significant difference: higher / lower at 95% confidence level vs Total

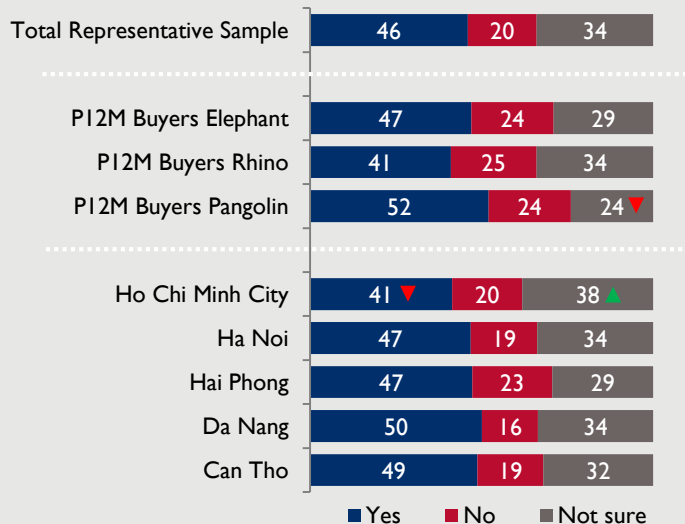


Q20b. And what do you recall seeing or hearing in these messages or materials? – **Weighted data**
 Base: Aware of messages, n=1109 in five selected cities

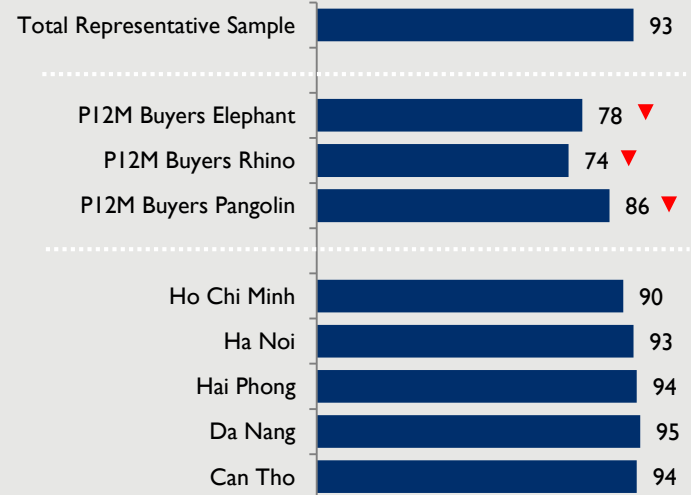
Awareness of the Revised Penal Code

When prompted (i.e., after reading a description of the law), 46% of the respondents claim to be aware of or have heard of the Revised Penal Code (effective on Jan. 2018). Once they are aware (i.e., Q21b is asked to all respondents, assuming that they were either aware in the past, or were made aware in Q21a), the vast majority agree or strongly agree with it, although significantly less buyers agree with the law vs the total representative sample.

Have you ever heard about the revision of the Penal Code? (%)



Agreement with the revision of the Penal Code (% Top-2-Box, 4 “Agree” + 5 “Strongly Agree”)



Q21a. In order to better protect endangered wildlife species, the Penal Code has been revised to better regulate wildlife crimes including hunting, catching, killing, rearing, caging, transporting and trading wildlife animals, effective on January 1, 2018. Offenders now face up to 15 years in jail and fines up to 15 billion VND for legal entities and 5 billion VND for individuals. Have you ever heard about this revision? – **Weighted data**

Q21b. How much do you agree with this revision? – **Weighted data**

Base: Total representative sample, n=1400 in five selected cities, (Base of Past 12 Months Buyers of Rhino = Total sample + Booster sample)

— 5.APPENDIX



USAID
FROM THE AMERICAN PEOPLE

Literature Review



USAID
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Literature Review

- Vietnam joined CITES in 1994 and has since witnessed increased efforts from different parties to combat illegal wildlife trade. Categorized as a primary demand market and a major transit hub, a number of research have been conducted to understand illegal wildlife trade in Vietnam. A list of studies has informed the context of this study, refer to the Appendix for the full list which includes consumer studies, market investigation, campaign evaluation, workshop reports, legal enforcement, etc. Reports available during the research window in the public domain are included, except for a couple of reports obtained via private sources.
- Recent consumer research have been conducted on a single species in Vietnam, among which a couple are conducted multi-years to measure campaign awareness. We have referenced these studies whenever possible depending on their availability in the public domain:

| Year | Org | Species | Title of Research | Methodology | Cities |
|------------------|--|----------|---|--|--|
| 2017 | WildAid, African Wildlife Foundation, CHANGE | Rhino | Rhino Demand Vietnam 2017 | n= 400 respondents in Ha Noi & HCMC in 2014(baseline), the same replicated in 2016 | Ha Noi, HCMC |
| 2016 | ENV | Pangolin | Pangolin Consumer Crime in Vietnam: The Results of ENV surveys and enforcement campaigns, 2011-2015 | Telephone interviews with 1,000 respondents (conducted in 2014) | Ha Noi |
| 2015 | National Geographic | Ivory | Reducing Demand for Ivory: An International Study | Phase 1: 15 In depth interviews in HCMC; Phase 2: 2 focus groups in HCMC; Phase 3: Quantitative survey; n=1, 000 in 4 cities via in-person surveys | Ha Noi, HCMC, Da Nang, Can Tho |
| 2013, 2017 | WWF/TRAFFIC | Rhino | Consumer Research on Rhino Horn Usage in Vietnam | Phase 1: 34 IDIs in HCMC + Ha Noi; Phase 2: Quantitative survey n=600 in 2 cities via in-person surveys | Ha Noi, HCMC |
| 2013, 2014, 2015 | Human Society International | Rhino | Viet Nam Rhino Horn Demand Reduction Campaign 2013-2016 | n=1,000, respondents aged 25-55 for 2013 in 6 cities(baseline research), the same replicated in 2014 (n=1,000) and in 2015 (n=2,000) | Ha Noi, HCMC, Da Nang, Hai Phong, Nha Trang, Can Tho |

Literature Review

- Looking at the current knowledge landscape, this study is Vietnam's first comprehensive large-scale multi-species consumer baseline research, measuring past-6-months, past-12-months and ever purchase incidences for elephant, rhino and pangolin products/parts in the country.
- Considerable amount of knowledge about wildlife consumption is already known from previous market and academic research: purchase drivers, market supplies, beliefs in product effects, legal framework, etc. This study builds on the current knowledge and seeks to go beyond by inquiring new topics such as purchase deterrents, consumer price sensitivity, relationship between wildlife product qualities and intention to pay, knowledge of sourcing wildlife products, awareness to revised penal codes, etc.
- We also took into account latest trends and change in beliefs in wildlife consumption and accommodated them at the questionnaire to better verify their prevalence, e.g., the emergence of elephant skin products for medicinal usage in Asia, rhino horn being increasingly regarded as a spiritual consolation for the terminally ill instead of as an effective medicinal cure, etc.
- Another benchmark we did is with similar consumer research published on elephant/rhino/pangolin consumption, notably WWF/TRAFFIC's *Consumer Research on Rhino Horn Usage in Vietnam*(2013 & 2017), WWF/TRAFFIC's *Demand Under the Ban-China Ivory Consumption Research*(2017) and USAID's *Research Study on Consumer Demand for Elephant, Pangolin, Rhino and Tiger Parts and Products in China*(2018), to align demographics data(?) when possible to increase comparability of our results.

References - Studies on illegal wildlife trades and the three species in Vietnam and Asia

| Species | Organization | Topic | Year |
|---------------|-----------------------------|--|----------|
| Mixed species | USAID & TRAFFIC | Mapping Motivations - Combatting consumption of illegal wildlife in Viet Nam | Jan 2018 |
| Mixed species | USAID | Summaries of Consumer Research, Campaign Evaluation Studies and other Literature relevant to Demand for Wildlife Parts and Products in China, Vietnam and Thailand (Elephant, Rhinoceros, Tiger, Pangolin) | May 2017 |
| Mixed species | USAID | "What Drives Demand for Wildlife?" A Situation Analysis of Consumer Demand for Wildlife Parts and Products in China, Thailand and Vietnam based on a Literature Review (Elephant, Pangolin, Rhino, Tiger) | 2017 |
| Mixed species | Wildlife Justice Commission | Wildlife Justice Commission Public Hearing: Vietnam investigation The Hague, NL, 14-15 Nov 2016 | 2016 |
| Mixed species | WildAct | The social trade network: Facebook's relationship status with wildlife traders in Vietnam | 2016 |
| Mixed species | / | Ha Noi Conference on illegal Wildlife Trade: Review of Progress | 2016 |
| Mixed species | TRAFFIC | Power of Persuasion? Conservation Communications, Behavioural Change and Reducing Demand for Illegal Wildlife Products | 2016 |
| Mixed species | TRAFFIC | <i>Workshop Report: Countering Illegal Wildlife Trade: Collaborative Actions along Transportation and Supply Chains</i> | 2015 |
| Mixed species | Stop Ivory | Analysis of conservation initiatives aimed at reducing demand for traded wildlife in China and Vietnam | Aug 2014 |
| Mixed species | WWF, TRAFFIC | Big wins in the war against wildlife crime | Feb 2014 |
| Mixed species | TRAFFIC, IUCN | Illegal trade in rhino horn and ivory: An assessment to improve law enforcement under the wildlife traps project | 2014 |
| Mixed species | TRAFFIC | <i>Workshop Paper: Creative experts' meeting on messaging to reduce consumer demand for tigers and other endangered wildlife species in Vietnam and China</i> | 2012 |
| Mixed species | Wildlife At Risk | Consumption of wild animal products in Ho Chi Minh City: Results of resident and student survey | 2011 |
| Mixed species | TRAFFIC | A Review of Expert Opinion on Economic and Social Drivers of the Wildlife Trade and Trade Control Efforts in Cambodia, Indonesia, Lao PDR, and Vietnam | 2008 |
| Elephant | Elephant Family | Skinned: The Growing Appetite for Asian Elephants | 2018 |
| Ivory | WWF, TRAFFIC | An act to save African elephants. A ban on commercial ivory trade in China: A feasibility study briefing | Sep 2016 |
| Ivory | WWF | Reducing Desire for Ivory: A psychosocial guide to address ivory consumption | 2016 |
| Ivory | WWF | Wildlife crime initiative. HKGCC. | 2016 |
| Ivory | Save the Elephant | Vietnam's Illegal Ivory Trade Threatens Africa's Elephants | 2016 |
| Ivory | TRAFFIC | Assessment of the Availability of Ivory in the Vietnamese Market | 2015 |

| Species | Organization | Topic | Year |
|------------|--|--|----------|
| Ivory | National Geographic Society, GlobeScan | Reducing Demand for Ivory: An International Study | Aug 2015 |
| Ivory | TRAFFIC | An Assessment of the Illegal Ivory Trade in Vietnam | 2008 |
| Rhino horn | Human Dimensions of Wildlife | Understanding utilitarian and hedonic values determining the demand for rhino horn in Vietnam | 2018 |
| Rhino horn | InFocus Mekong | Market Entry of Bio Horn Supplements | Oct 2017 |
| Rhino horn | Elephant Action League | Grinding Rhino – An Investigation into Rhino Horn Trafficking in China and Vietnam | Jul 2017 |
| Rhino horn | International Trade Centre | Demand in Viet Nam For Rhinoceros Horn Used in Traditional Medicine | 2017 |
| Rhino horn | WildAid | Rhino horn Demand Vietnam 2017 | 2017 |
| Rhino horn | Humane Society International | Viet Nam Rhino Horn Demand Reduction Campaign Campaign Report 2013-2016 | 2016 |
| Rhino horn | NRDC | RHINO RAGE: WHAT IS DRIVING ILLEGAL CONSUMER DEMAND FOR RHINO HORN | Dec 2016 |
| Rhino horn | WWF, TRAFFIC, IPSOS | Consumer Research on Rhino Horn Usage in Vietnam | Apr 2013 |
| Rhino horn | TRAFFIC | Article: Rhino Horn Consumers, Who are they? | 2013 |
| Rhino horn | EIA | Vietnam's Illegal Rhino Horn Trade: Undermining the Effectiveness of CITES | 2013 |
| Pangolin | WildAid | Pangolins on the brink | 2016 |
| Pangolin | TRAFFIC | The Global Trafficking of Pangolins: A comprehensive summary of seizures and trafficking routes from 2010–2015 | Dec 2017 |
| Pangolin | ENV | Pangolin Consumer Crime in Vietnam: The Results of ENV surveys and enforcement campaigns, 2011-2015 | 2016 |

Other Literature - Relevant consumer demand studies in nearby Asian markets on the three species

| Species | Organization | Topic | Year |
|----------|---|---|----------|
| Ivory | TRAFFIC/WWF, GlobeScan | Demand under the ban: China ivory consumption research | Dec 2017 |
| Ivory | WildAid | Ivory Demand in Thailand | 2016 |
| Ivory | WildAid | Ivory demand in China: 2012-2014 | 2014 |
| Pangolin | TRAFFIC | Factsheet: The Scale of Pangolin Trade in India: Nearly 6,000 pangolins poached between 2009-2017 | Feb 2018 |
| Pangolin | TRAFFIC | Scaly Nexus: Mapping Indonesian pangolin seizures (2010–2015) | Dec 2017 |
| Pangolin | Horizon China | Report on Chinese Public Attitude to the Consumption of Pangolins and Relevant Products | Mar 2016 |
| Pangolin | University of Hong Kong Humane Society International | Survey on Pangolin Consumption Trends in Hong Kong | 2016 |

— Overall Detailed Methodology

- Mobile / On-line data collection
- Weighting and Sample Quality
- Rounding and Reported Data
- Margin of error



Detailed Methodology: Mobile / On-line Data Collection

The quantitative survey was conducted **via mobile phone, using an opt-in mobile phone users** panel, from **July 5 to July 30 2018**, with a questionnaire length of 15 minutes on average.

In Vietnam, the smart mobile phone is the **first truly personal mass medium** with 90 percent urban penetration, 60 percent rural penetration and is the most important media source in terms of daily consumption (higher than TV). Consumers in Vietnam today are wealthier and harder to reach. Face-to-face sampling does not help to achieve adequate representation of high net worth respondents.

Conducting research via a mobile panel is more effective for reaching wealthy and hard-to-engage consumers with smartphones. It allows images and video captures and it is the most convenient, fast, cost-effective and representative data collection method in Vietnam. Respondents can answer the survey either on their smartphones or on their computers, of which a majority chose their smartphones.

Mobile Research in 2018:

- 62 million internet users and 48M smartphone users
- 90%+ smartphone ownership for adults in urban Vietnam
- Purchase intentions for mobile in 2018 is double that of laptops
- Mobile penetration is more than double compared to laptops
- SMS and email invites: 35% response rate

Advantages of Mobile Research

- More representative for the target group
- More natural way of interviewing and collecting data
- Respondents can complete at their own convenience
- Potentially more honest responses to sensitive questions (due to anonymity)

Mobile Data Collection: The Process

Find below the process designed and deployed by our data collection partner InFocusMekong.

- 1 Identify profile
via IFM data base



- 2 Recruit additional sample
(if required)



- 3 Script questionnaire
/ screening criteria



- 4 Pilot with clients live
via smartphone / PC



- 5 Send survey by
SMS / Email



- 6 Completed survey's
enter IFM portal



- 7 Q.C. survey's
call back validation



- 8 Send Mobile
top-up Incentive



- 9 Analyze & Report



Detailed Methodology: Weighting and Sample Quality

Weighting

- After fieldwork was closed and the final data quality checks were performed (e.g., removal of bad records with incomplete answers), a weighting was applied on the total representative sample in order to fully match the quotas by city and gender, to correct (small) deviations in the end sample compared to the quota set.
- The quotas were well monitored during fieldwork, and hence, the demographic sub-groups did not require further weighting as the end sample fully matched the quotas set by age and income, i.e., the total sample is representative of the national population by age, gender and income.
- This report presents only weighted results/data, and all the sample sizes indicated are weighted samples.

Questionnaire and Respondents Quality

- For the respondents to answer honestly and be “neutral” when they are qualified for the survey, it is important that the survey topic is not mentioned in the invitation. The email received by the potential respondents only mentioned the general topic of “lifestyle and shopping practices in Vietnam.” This technique is in line with other similar methods employed in surveys around sensitive topic areas.
- After the respondents answered the screening questions and if they qualified for this survey, the first questions in the main questionnaire asked were whether they have ever bought or consumed a list of food items, in which the four wildlife species surveyed were included. This was to avoid putting too much emphasis on these species in the beginning of the questionnaire.

Detailed Methodology: Rounding and Reported Data

Rounding

- All numbers and percentages shown at first decimal in tables and graphs in this report are the result of rounding. Rounding to the nearest integer has been applied and may add up to more or less than 100%.
- To illustrate, if the digit in the tenths place is less than 5, then the number is rounded down (e.g., 20.2% becomes 20%). If the digit in the tenths place is 5 or greater, then the number is rounded up (e.g., 20.5% becomes 21%).
- In this way, the rounded total is consistent with the sum of the rounded addends (except for small rounding differences), and may add up to more or less than 100% (+/- 1% point).

Reported Data

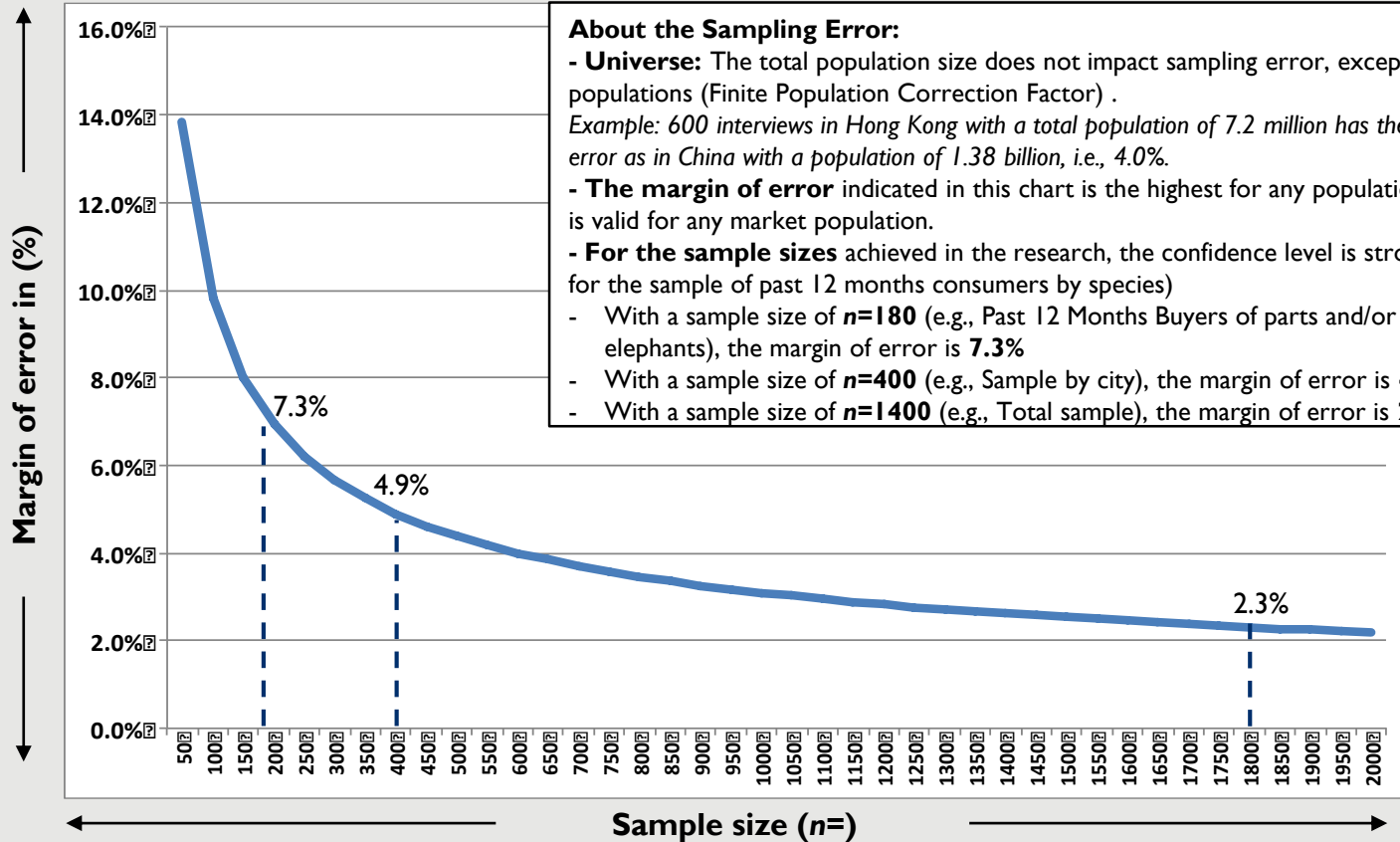
- The data is weighted based on city targets, i.e., $n=400$ or $n=200$ by city. It is not weighted based on purchase/consumption, as these incidence numbers are outputs of the survey and should be based on a representative sample (for each chart, the sample is indicated at the bottom of the slide, i.e., Total sample, Past 12 Months Buyers, etc.).
- For questions with answers on a 5-point scale, the top-2 box is reported in some cases. The top-2 box is the sum of the scores for code 4 and code 5, e.g., a sum of all the positive responses.
- Several sub-groups have been analyzed in the survey sample. More precisely, the data has been analyzed at total level, by city, and more specifically by demographic groups, or Past 12 Months Buyers of parts and/or products of the surveyed species. In case there are significant differences, results per sub-group are reported.

Margin of Error

Margin of Error: Definition

- In reports on public opinion polls, a “margin of error” is often stated. The margin of error estimates the accuracy of the sample compared with the entire population. A margin of error of plus or minus 3% at a 95% confidence interval would mean that if we examined 100 truly random samples of a particular size, in 95 of such samples the figures would be within three percentage points of the “true” answer that would result from interviewing the entire population. Generally speaking, the larger the sample, the lower the margin of error (see illustration in the next slide).
- However, calculated margin of error is valid only upon the assumption that the sample is truly random, with every member of the population having an equal chance of being included in the survey. This assumption is not met in the majority of contemporary opinion polls, because the samples are drawn using complex systems of stratification and quotas or are obtained from panels of volunteers, as in the case of this study.
- The survey samples for the current study are not strictly random and, therefore, no estimates of sampling error can be calculated. Even though margin of error is not applicable to non-random samples, it can be used as a rough tool to assess patterns in the collected data. For example, a five percentage point difference between males and females in a sample of 1,000 respondents may indicate a pattern, while a ten-point difference in opinion between smaller demographic groups may not.
- The sampling methodology for this study was tailored to the overall objective of understanding the drivers of demand of products and/or parts of wildlife species and how to reduce that demand. Industry standards and best practices suited to geographic realities have been applied throughout.

Margin of Error in Surveys



About the Sampling Error:

- **Universe:** The total population size does not impact sampling error, except for small populations (Finite Population Correction Factor) .

Example: 600 interviews in Hong Kong with a total population of 7.2 million has the same margin of error as in China with a population of 1.38 billion, i.e., 4.0%.

- **The margin of error** indicated in this chart is the highest for any population size, and hence, is valid for any market population.

- **For the sample sizes** achieved in the research, the confidence level is strong (and acceptable for the sample of past 12 months consumers by species)

- With a sample size of **n=180** (e.g., Past 12 Months Buyers of parts and/or products of elephants), the margin of error is **7.3%**

- With a sample size of **n=400** (e.g., Sample by city), the margin of error is **4.9%**

- With a sample size of **n=1400** (e.g., Total sample), the margin of error is **2.6%**

What Does it Mean for the Sample Sizes in This Report?

1. Above $n=1000$, the reduction in the margin of error is rather limited: increasing from $n=1200$ to $n=2000$ reduces the maximum margin of error from 3.1% to 2.1%.
2. However, when we look at margins by age or any other demographic sub-group, then the differences are larger: a sample size of $n=250$ has a maximum margin of error of 6.2%, while for $n=150$, it is 8.0%
3. This also applies if we want to look at other smaller sub-segments, such as consumers with a low incidence level (e.g., Past 12 Months Buyers of parts and/or products of pangolin).
4. As a whole, the sub-groups presented in this report have all a robust sample size that allow analysis.

- 
- Qualitative Phase – additional information
 - Research methodology: group scheduling and profiles
 - Findings:
 - Perception of Luxury
 - Fake versus Authentic, Certification
 - Associations and Perceptions
 - Media Awareness and Messaging

Research Methodology: Group Scheduling

The groups were scheduled as follows:

Ha Noi

Group 1

Date: May 9, 2018
Duration: 2h 15m
Respondents: males aged 40-70
SEC: VND 20 mil – 50 mil
(~ USD 880 - USD 2,200)

Group 2

Date: May 09, 2018
Duration: 2h
Respondents: females aged 20-39
SEC: VND 20 mil – 60 mil
(~ USD 880 - USD 2,640)

Ho Chi Minh City

Group 1

Date: May 10, 2018
Duration: 2h
Respondents: males aged 20-39
SEC: VND 20 mil – 50 mil
(~ USD 880 - USD 2,200)

Group 2

Date: May 10, 2018
Duration: 1h 45m
Respondents: females aged 40-70
SEC: VND 20 mil – 70 mil
(~ USD 880 - USD 3,080)

Respondents Profiles

Ha Noi Group 1 – Males aged 40–70

| Resp # | Age | Income | Occupation | Products used |
|--------|-----|--------|------------------|----------------|
| 1 | 45 | 50mil | Business owner | Ivory |
| 2 | 50 | 50mil | Captain | Rhino horn |
| 3 | 60 | 30mil | Business owner | Pangolin scale |
| 4 | 45 | 30mil | Business owner | Ivory |
| 5 | 40 | 20mil | Shoes shop owner | Ivory |
| 6 | 44 | 20mil | Business owner | Pangolin scale |
| 7 | 41 | 40mil | Accountant | Pangolin scale |

Ho Chi Minh City Group 3 – Males aged 20–39

| Resp # | Age | Income | Occupation | Products used |
|--------|-----|--------|--------------------------|-----------------|
| 1 | 28 | 40mil | Beer club manager | Ivory |
| 2 | 33 | 50mil | Constructor | Pangolin powder |
| 3 | 39 | 40mil | Purchasing manager | Ivory |
| 4 | 30 | 25mil | Owner of appliance store | Rhino horn |
| 5 | 25 | 35mil | IT manager | Rhino horn |
| 6 | 33 | 50mil | Constructor | Pangolin powder |
| 7 | 39 | 40mil | Purchasing manager | Ivory |
| 8 | 24 | 20mil | Office staff | Ivory |

Ha Noi Group 2 – Females aged 20–39

| Resp # | Age | Income | Occupation | Products used |
|--------|-----|--------|-----------------------|----------------|
| 1 | 38 | 20mil | Office staff | Pangolin scale |
| 2 | 31 | 30mil | Office staff | Ivory |
| 3 | 35 | 25mil | Accountant | Pangolin scale |
| 4 | 39 | 60mil | Business owner | Rhino horn |
| 5 | 36 | 40mil | Hair salon owner | Pangolin scale |
| 6 | 35 | 50mil | Furniture store owner | Pangolin scale |
| 7 | 28 | 40mil | Manager | Ivory |
| 8 | 22 | 30 mil | Office staff | Ivory |

Ho Chi Minh City Group 4 – Females aged 40–70

| Resp # | Age | Income | Occupation | Products used |
|--------|-----|--------|--------------------|--------------------|
| 1 | 42 | 40mil | Finance manager | Ivory |
| 2 | 55 | 20mil | Housewife | Rhino horn |
| 3 | 42 | 25mil | Sale manager | Ivory |
| 4 | 40 | 20mil | Shoes shop owner | Ivory |
| 5 | 44 | 20mil | Business owner | Pangolin scale |
| 6 | 41 | 40mil | Accountant | Pangolin scale |
| 7 | 65 | 70mil | Manufacturer owner | Rhino horn + ivory |
| 8 | 60 | 50mil | Renting house | Pangolin powder |



Perception of Luxury

Luxury items are defined as gold, precious gems such as diamonds, and are also described as rare wood furnishings, elephant ivory and the hair of its tail, and crocodile skin.

Many also mentioned plants such as ginseng and cordyceps (a fungi), and healthcare products and medicinal supplements such as rhino horn, tiger bone extract, and bird nests as these are perceived as rare, valuable and medical potent.

Luxury was perceived as anything that is rare, hard to obtain and has a high price tag. The more rare an item is, the more luxurious it is perceived to be.

Focus on jewellery: gold, precious gems, perfume
“Lots of luxury items such as gold, gems for necklaces, wrist lace or bird nest.”



Focus on rhino horn, furniture
“Rhino horn, tiger bone or wood furniture, anything rare is a luxury item.”

“The more rarer a product, the more it is in demand.” (Female 36, Ha Noi)

Fake versus Authentic, Certification

- Most consumers did not know how to identify which wildlife products were real and which were fake
- Thus relatives and close friends with (perceived) knowledge were trusted, and considered to be key knowledge sources
- Most consumers talked about certification but merely guessed at who was actually certifying the products
- Several consumers (incorrectly) guessed that the Ministry of Health certifies wildlife products, as they consider this a trusted certifier for (non-wildlife related) products



Some respondents thought it impossible to have certificates of authenticity because the wildlife products are illegal

The majority of respondents were willing to pay a premium for **certified high-quality products** by:

- Ministry of Natural Resources and Environment
- Ministry of Public Security
- Ministry of Health
- USA certification



Overall Wildlife Associations and Perceptions

Main Drivers for Wildlife Products



Hope

Concerns for health (own or others)



Status

For decoration, to show power/status



Protection

Luck, to change your destiny in life and protect you

Origin of Values / Belief Systems



Mainland China



Generation of conditioning and great parental influence



Traditional medicine culture

Elephant

Rhino horn

Pangolin

Associations / perceptions

- Rare and more valuable than gold; the more expensive, the more desired and appreciated
- Ivory used as decoration, as a status and power symbol, but has no medicinal use
- Elephant tail hair for exorcising ghosts and to providing confidence

- Rare and more valuable than gold: the more expensive, the more desired and appreciated
- Used as severe cures for cancer but also for as a sexual aid, reproductive remedy and to detox the body

- Considered a common species and not endangered
- Used as a daily remedy to help expedite and create higher efficacy along with other ingredients

Associated values



Wealth
(ivory)



Social status
(ivory)



Spiritual protection
(elephant tail hair)



Health benefits



Wealth



Health benefits



Elephants: Associations, Sources of Beliefs and Usage

Associations and Perceptions



Wealth



Illegal



Brings luck and exorcizes spirits



Builds confidence



Easy to buy fake products



Only real elephant ivory can bring luck and safety; it cannot be replaced

Sources of Beliefs

- Chinese influence, including imperial rule over much of northern Vietnam for 1,000 years, left a strong cultural legacy in Vietnam. This is specifically true for the Fengshui belief systems of doing things to bring good luck.
- Following experiences of previous generations; passed down by the elderly, word of mouth from parents and relatives

Usage

- Ivory was only used for decoration, and not for medicinal purposes
- To show wealth, power and status
- In the past, ivory chopsticks were used to test whether food was poisonous

“Using elephant ivory as jewellery to show your status that gold could not do.” (Male 39, HCMC)

“I bought my wife and me both elephant hair necklaces, we wear them all the time, it gives us confidence in daily life.” (Male 28, HCMC)

“My relative was possessed by a spirit, we bought her elephant hair.” (Female 28, Ha Noi)

“My boss has tusks in his house, it shows his wealth.” (Male 33, HCMC)



Rhinos: Associations, Sources of Beliefs and Usage

Associations and Perceptions



Wealth



Illegal



Easy to buy fake products



A “natural panacea,” especially for the elderly, that cannot be replaced

“Government tries to promote that rhino horn is ineffective, but we all know its benefits so replaced materials would not be preferred.” (Female 42, HCMC)

“Only wealthy have enough money to purchase rhino horn because it’s rare.” (Female 42, HCMC)

Sources of Beliefs

- Similar to elephant products, the beliefs were influenced by Chinese culture and experiences of previous generations

Usage

- Believed to be good as a
 - de-toxin
 - for men’s sexual health (libido driver)
 - for liver purification
 - to cure cancer
- To reduce fever
- To treat reproductive problems
- To show wealth, power and status
- As a gift to get a promotion

“I bought Rhino horn for my boss because he can help me to get a promotion.” (Male 45, Ha Noi)

“My aunt had cancer, so we had to borrow money to buy rhino horn. It was the only thing we could do, no matter what the price.” (Female 55, HCMC)

“I saw a woman buying rhino horn for her husband because it’s good for sexual health.” (Female 44, HCMC)



Pangolins: Associations, Sources of Beliefs and Usage

Associations and Perceptions



Good for many basic health needs, more like a catalyst for other medicines



Pangolin scale was the only wildlife product that can easily be replaced as it is easy to buy and is not expensive

“You can find pangolin everywhere and can buy by the bag full.” (Male 50, Ha Noi)

Sources of Beliefs

- Similar to elephants and rhino products, the beliefs were influenced by Chinese culture, and passed down from the elderly to the younger generation

Usage

- Taken with other products to enhance their effectiveness
- To improve lactation
- To reduce fever
- To treat reproductive problems

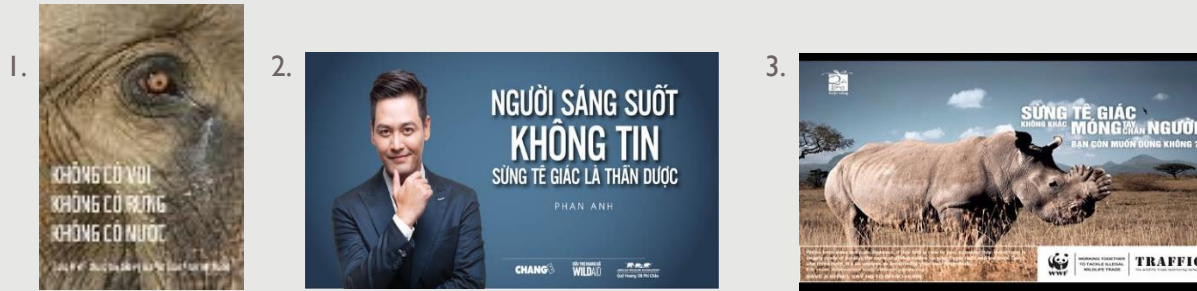
“I bought dried pangolin scales for my wife because she was having difficulty lactating.” (Male 50, Ha Noi)

“Vietnamese are influenced by Chinese culture for long time, that’s why pangolin or rhino is believed as good medicines.” (Male 24, HCMC)

Media Awareness

Top Awareness Messages

“Crying elephant” was best received as it evoked the most emotion and hence created awareness. Other messages are shown below with recall based on frequency of viewership:



Impressive Messages Description

- Affected by images of suffering animals (more among females)
- Messages including animals (images) were more impactful than messages with public figures (across all segments)

Top Awareness Channels



Television
(more for older consumers)



Banner
(more in Ha Noi)



Facebook
(slightly more among younger consumers)

Messaging

Top Mentioned Topic

Communicating the illegality of selling was considered the best deterrent to buying, e.g., the most effective message. However, the illegality of purchasing was not a strong deterrent and as more altruistic messages do not seem to work, the focus should be on the fact that buying is illegal and will be punished.



Law
(slightly stronger among females)



Health issues
(no variance amongst groups)



Environment issues
(slightly more amongst younger)



Animal protection issues
(no variance)

Top Messages



“Killing elephants is cruel and will be punished”



“Purchasing and using pangolin is illegal”



“Use any products from rhino is illegal”

Top Mentioned Channels



Television



Speeches at school, church



Social network



Banners

Top Mentioned Messengers

- Bishops
- Doctors
- Rangers
- Teachers

Messaging Channels, Impact and Messengers

Most Effective Channels



Television/radio,
main channel of
Government, BIBI



Speeches in schools
and churches



Social networks
like Facebook



Banners at the airport, bus
stations, schools, the zoo

Impact

Most respondents were impressed by or touched by images or messages such as:

- Images of animals after having their parts removed
- Image of baby elephants lying beside their dead mothers

“I don’t remember where I saw this image but it touched me because of the tears of the elephant.” (Female 38, HCMC)

Most Effective Messengers

- Bishops: teaching during mass *“I think a bishop can affect Catholics easily, thus is a good choice as messenger.” (Female 42, HCMC)*
- Doctors: health seminars on TV
- Rangers: promote animal awareness
- Teachers: increase children’s awareness

“After this discussion, I will not purchase rhino horn and elephant ivory anymore because those animals also have a family like humans.” (Female 38, HCMC)

“The scandal of Pham Huong having a bad attitude towards other candidates made us not believe in KOL (celebrities) anymore.” (Female 42, HCMC)

Celebrities were not considered good messengers as they are often embroiled in scandals (e.g., Pham Huong, Miss Universe 2015 who went to Africa to join the Wildlife Protection campaign last year; she was perceived as unfriendly and having a bad attitude towards other candidates).

Detailed analysis

- Regression Analysis
- Narrative Analysis Methodology



Regression Analysis

Definition

Regression analysis is a predictive analysis technique used to identify relative strength of predictors (e.g. independent variables) in driving an outcome (e.g. dependent) variable of interest.

Depending on the research objectives, measurement level and data distribution researchers could consider using one of regression algorithms, including Multiple Linear Regression, Ordinal Regression, Multiple Categorical Regression and Partial Least Squares Regression, to name just a few.

Regression Analysis in this Study

In this particular study we used Partial Least Squares (PLS) Regression because it is not vulnerable to the multicollinearity bias (e.g. when all predictors are highly correlated between themselves) and able to deal with the data that don't follow the normal distribution.

Similar to Multiple Linear Regression output of PLS regression includes the determination coefficient or R-square, and regression coefficients for each individual predictor. The higher the value of R-square the more robust is the model. The higher the value of regression coefficient of a particular predictor the stronger is this predictor in driving the dependent variable.

In this particular study measured perception and attitudes drive 45% of purchasing intent for Ivory, 42% for Rhino Horn and 38% of Pangolins.

As the rule of thumb, predictive models with R-square below 30 % are considered weak, between 30% and 60% - of medium strength, and above 60% as strong.

Narrative Analysis Methodology

Definition

People's decisions and behaviors are underlined by narrative frames that explain and justify them.

Narrative analysis is used to identify how individual attributes/ statements/ attitudes and beliefs come along and group together in consumers' minds.

Principal Component Analysis (PCA)

Principal Component Analysis aka Factor Analysis is a multivariate statistical data reduction technique used to identify natural groupings (e.g. factors) of individual attributes/ beliefs/ attitudes within a large set, well as importance of each attribute within a particular grouping (e.g. factor).

For example (see example on the right hand side):

"Indicate wealth" (.779) plays a more important role in Narrative I than being a "symbol of masculinity" or "worth the price".

Our analysis has identified 4 of such groupings (e.g. factors). We call the identified factors "narratives" because the attributes inside each are intended to be used for message development and communication purposes.

Example: Statement grouping and Narrative I for Rhino

| | |
|---|-------|
| Indicate wealth, power and social status | 0.779 |
| Provide a feeling of belonging to a social group | 0.748 |
| Are good for building business relationships | 0.721 |
| Are a good investment that won't depreciate in the future | 0.709 |
| Are a good symbol of masculinity | 0.700 |
| Bring good Feng shui | 0.686 |
| Are worth their price, no matter how expensive | 0.611 |

Narrative I: Social, investment and symbolic values
Rhino parts or products have a strong social role: they indicate wealth/social status while providing the feeling of belonging. They also other benefits such as a high investment value, are good for building business relationships and I believe they are the symbol of masculinity.

Statement grouping

Narrative

USAID leads international development and humanitarian efforts to save lives, reduce poverty, strengthen democratic governance and help people progress beyond assistance.
www.usaid.gov

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