Agribusiness & Economics Research Unit
LINCOLN UNIVERSITY

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

The Use of Indigenous Cultural Attributes to Obtain Premiums in International Perfume Markets

Matthew Rout
John Reid

Research Report No. 381
October 2022

Research to improve decisions and outcomes in business, resource and environmental issues.

The Agribusiness and Economics Research Unit (AERU) operates at Lincoln University, providing research expertise for a wide range of international, national, and local organisations. AERU research focuses on business, resource, and environmental issues.

The Agribusiness and Economics Research Unit (AERU) has four main areas of focus. These areas are wellbeing economics, trade and the environment, economic development, and non-market valuations.

Research clients include Government agencies, both within New Zealand and from other countries, other international agencies, New Zealand enterprises in the private sector, and community groups.

AERU MISSION
To exercise leadership in research for sustainable well-being.

AERU VISION
The AERU is a cheerful and vibrant workplace where senior and emerging researchers are working together to produce and deliver new knowledge that promotes sustainable well-being.

AERU STRATEGIC AIMS

- To be recognised by our peers and end-users as research leaders for sustainable well-being.
- To mentor emerging researchers and provide advanced education to postgraduate students.
- To maintain strong networks to guide AERU research efforts and to help disseminate its research findings.
- To contribute to the University's financial targets as agreed in the AERU business model.

DISCLAIMER
While every effort has been made to ensure that the information herein is accurate, the AERU does not accept any liability for error of fact or opinion that may be present, nor for the consequences of any decision based on this information.

Summaries of AERU Research Reports beginning with #235, are available at www.lincoln.ac.nz/aeru.
Printed copies of AERU Research Reports can be requested from the AERU Administrator.

Suggested citation for this report:

Rout, Matthew and John Reid (2022). *The Use of Indigenous Cultural Attributes to Obtain Premiums in International Perfume Markets.* AERU Research Report No. 381, prepared for the Unlocking Export Prosperity Research Programme. Lincoln University: Agribusiness and Economics Research Unit.

The Use of Indigenous Cultural Attributes to Obtain Premiums in International Perfume Markets

Matthew Rout
John Reid

Research Report No. 381

October 2022

Agribusiness and Economics Research Unit
PO Box 85084
Lincoln University
Lincoln 7647
Canterbury
New Zealand

Ph: (64) (3) 423 0372
http://www.lincoln.ac.nz/AERU/

ISSN 1170-7682 (Print)
ISSN 2230-3197 (Online)
ISBN 978-1-99-103526-4 (Print)
ISBN 978-1-99-103527-1 (Online)

Abstract

Taramea is a plant species native to Aotearoa New Zealand and a taonga of Ngāi Tahu. Traditionally it was harvested and processed by Ngāi Tahu to produce a prized perfume known as the 'fragrance of chiefs' that was extensively gifted and traded. The purpose of this report is to explore potential international markets for taramea, and more particularly identify markets that would be willing to pay the most for the unique story, and distinctive cultural attributes, that taramea carries. Section one of the report provides a thorough overview of the history and background of taramea, from its distinctive ecology and role in traditional Ngāi Tahu culture, through to its contemporary use in the production of a commercial fragrance. Section two explores international market trends, and in particular the development of fragrances with indigenous stories and provenance. Section three explores the credence attributes that constitute the 'brand story' of taramea, and via results from a market survey, the extent to which international consumers in New York, London, and San Francisco value these attributes.

Keywords

Ngāi Tahu; Māori Agribusiness; Value Chains; Credence Attributes; Māori Cultural Attributes; Taramea; Perfume.

ANZSRC Fields of Research

International Business (150308); Organization and Management Theory (150310); Studies of Māori Society (169904).

Acknowledgements

This Research Report has been prepared as part of the research programme Unlocking Export Prosperity, funded by the Ministry of Business, Innovation and Employment (LINX1701). The authors wish to extend their thanks and gratefulness to all the Ngāi Tahu participants that shared their wisdom, stories, and insights in this study. Ngā mihi nui ki a koutou katoa.

Contents

SECTION THREE: TAKING TARAMEA TO THE INTERNATIONAL MARKET

List of Figures

List of Tables

Introduction

Taramea is a plant species native to Aotearoa New Zealand. Traditionally it was harvested and processed by Ngāi Tahu to produce a prized perfume known as the 'fragrance of chiefs' that was extensively gifted and traded. Due to the impacts of colonization the knowledge of how to produce taramea perfume was nearly lost to Ngāi Tahu, however, an initiative starting in the late 2000s led to the revival of taramea perfume production. A commercial initiative was established by Puketeraki Rūnanga to harvest and process taramea to produce perfume oil, which was bottled and sold to Ngāi Tahu whanui, through Ngāi Tahu tourism outlets, and online. However, this initiative was negatively impacted by the COVID pandemic, which saw international tourism to Aotearoa New Zealand suspended. This event highlighted the risks of establishing a taramea enterprise primarily dependent on the tourism market.

The purpose of this report is to explore potential international markets for taramea, and more particularly identify markets that would be willing to pay the most for the unique story, and distinctive cultural attributes, that taramea carries. Section one of the report provides a thorough overview of the history and background of taramea, from its distinctive ecology and role in traditional Ngāi Tahu culture, through to its contemporary use in the production of a commercial fragrance. Section two explores international market trends, and in particular the development of fragrances with indigenous stories and provenance. The analysis shows that there is significant growth in demand for artisanal fragrances with an authentic brand story within large progressive Western metropolitan areas. A taramea fragrance would likely resonate with such markets.

Section three explores the credence attributes[1] that constitute the 'brand story' of taramea, and via results from a market survey, the extent to which international consumers in New York, London, and San Francisco value these attributes. It should be noted that some of the key identifying aspects of the market analysis have been redacted or obscured due to commercial sensitivities in this publicly available report. Still, as will be shown, the market survey demonstrates that fragrance consumers in these markets, in the main, considered the credence attributes of taramea to be valuable to them. New York stood-out as the market that most highly valued taramea fragrance attributes. Section three also offers the results of an online survey conducted primarily with Ngāi Tahu Māori that shows that a significant majority of this cohort support the export of taonga (treasured cultural items) like taramea when the authenticity of the product is maintained.

[1] A credence attribute is an intangible feature of a product that cannot be directly perceived. For example, taramea may be harvested in a way that enhances the natural environment, however, a consumer purchasing the fragrance would not know this intangible element of the product unless told.

SECTION ONE:

HISTORY/BACKGROUND OF TARAMEA

Chapter 1
Taramea

Taramea is a plant species native to Aotearoa New Zealand. It has been known by many names including karamea, kurikuri, papaī (the young edible root) or tūmatukuru (the larger form), wild Irishman, wild Spaniard, the bayonet plant, bayonet grass or speargrass. Many of these names – including taramea, which means 'spiny thing' – derive from its spiky leaves, which are stiff with razor-sharp points that may have evolved as protection against grazing moa (Tipa, 2020). Taramea habitat runs from montane to low alpine sites, including rocky areas, dry grasslands, and tussock, and while it is found in the North Island, most of its natural habit lies in the takiwa (tribal area) of Ngāi Tahu in the South Island. In particular, its habitat runs from the Kaikōura mountain ranges on the East Coast, south to Murihiku (Southland) and Karamea on the West Coast (Dobson-Waitere *et al*, 2021). While it grows across this area, some of the noted Ngāi Tahu sites were Kairuru (Kaikōura), Waimakariri (mid-Canterbury), Hakataramea (Waitaki Valley), Uretane (near Waimate), Hikaroroa (inland of Waikouaiti), and Maungaatua (near Mosgiel) (Dobson-Waitere *et al*, 2021).

1.1 Taramea as a taonga

Taramea is a taonga species. The term 'taonga' is generally defined as a 'treasure' though as with most Māori concepts this fails to capture the depth or breadth of its meaning. The concept "refers to all dimensions of a tribal group's estate, material and non-material - heirlooms and wahi tapu [sacred places], ancestral lore and whakapapa [genealogy], etc." (Tapsell, 1997, p. 326). In the Treaty of Waitangi, 'taonga' was used to refer to the 'other properties' Māori retained full and exclusive possession over, along with their land, estates, forests, and fisheries. In Waitangi Tribunals, different claimants have referred to rivers, harbours, lands, fisheries, forests, sacred sites, mountains, underground resources, language, and carvings as taonga, and the concept has expanded to encompass 'digital taonga' as well. The Treaty itself is also considered a taonga. (Tapsell, 1997; Ngata *et al*, 2021).

It might be best to consider 'taonga' broadly, as something Māori, or any group of Māori, considers of fundamental importance. Tapsell notes that this importance emerges out of: whakapapa (the genealogical connection humans share with each other and the rest of the natural world), which maps the strong connection Māori have with taonga; mana (cosmic power and resulting prestige) which builds in taonga through association with ancestors; tapu (cosmic sacredness), which helps prevent the mana of a taonga from being transgressed; and korero (orally transmitted knowledge), which pass on the importance and correct ways of relating to and using the taonga (Tapsell, 1997). While taonga can be defined as 'treasure' it can be best understood as encapsulating both the noun form as a 'valuable object' and the verb form as something to 'keep carefully'.

The concept of a 'taonga species' encapsulates this, they are considered flora and fauna that are valued and need to be protected. They "can be generally defined as culturally significant species that shape mātauranga Māori (Māori knowledge) and whakapapa, but ultimately, local iwi (tribes) and hapū (sub-tribes) have the authority to define their own taonga" (Collier-Robinsen *et al*, 2019, p. 2). In the Ngāi Tahu Claims Settlement Act 1998 a 'taonga species' was defined as "the species of birds, plants, and animals described in Schedule 97 found within the Ngāi Tahu claim area" (Ngāi Tahu Claims Settlement Act 1998). Taramea is listed as one of 113 species in Schedule 97.

1.2 History of Ngāi Tahu and taramea

The revered nature of taramea did not mean that it could not be harvested, used or traded, however. There is no contradiction in the respectful and careful use of a treasured resource if it is conducted according to tikanga (literally 'right or correct way'). Historically, this meant that certain rules had to be followed in its procurement and processing. For example, the harvest of taramea was conducted at dawn, it had to be procured in the early morning, by young woman and was precluded by karakia (chants) (Dobson-Waitere *et al*, 2021). All aspects of taramea harvest and use were proscribed by tikanga, ensuring that its mana was not diminished, and its tapu was protected.

1.3 Understanding the right to harvest taramea

The dominant political grouping in traditional Māori society was the hapū (clan), which was made up of a number of related whānau (extended family), though because of the often migratory nature of many Ngāi Tahu groups, there was more fluidity to these group dynamics than was common in North Island Māori (Anderson, 1980). This had two related outcomes, Ngāi Tahu was a more homogenous iwi than many others and the multi-hapū kainga (village) was also important as a political unit (idem). That said, it was usually only in times of war, other existential crises, or significant resource usages that these Ngāi Tahu groups organised collectively as an iwi (tribe); see Barr and Reid (2014). Rights to use resources were held at the individual, whānau, and hapū level, generally depending on the labour, technique, and tool scale requirements of use (Rout *et al*, 2018). Māori user rights were allocated on a functional basis (Banner, 1999). The chief of the hapū held ultimate mana over all of the resources within the hapū territory, though when it came to some particularly valued resources, such as the tītī (muttonbird) the ultimate right could be seen as resting with iwi chief, or senior hapū chief (Anderson, 1980).

The right to harvest taramea was likely exercised at different levels. Much of the taramea is found in the mountain passes from the east to the West Coast of the South Island, over which Ngāi Tahu travelled to source one of it not the most valued resource in traditional Māori society, pounamu (Dobson-Waitere *et al*, 2021). These expeditions would have been conducted under the hapū chief's mana, and it seems likely that the taramea collected along the way was similarly located in terms of rights. However, Beattie (1920) recounts an expedition to hunt weka (a hen-sized bird) carried out by a 'nuclear family', just the parents and their children, who also harvested taramea along the way. It seems likely that the right was held at the hapū level but could be exercised by smaller groups.

During harvest trips, the spiky taramea leaves were gathered in the early morning. While the reasons for this were embedded in tikanga, they were both spiritual and pragmatic. As Best (1977) notes, the gum was not as sticky in the morning, making it easier to gather. The leaves were then plaited, and the base of each plait was burnt over embers until the gum was forced to the top. The resin was squeezed from the leaves and collected in a rourou (flax plate) or ipu (vessel), often either a shell or a gourd, and it was then saturated in bird or rat fat to preserve the scent. This process is similar to the enfleurage process developed by French perfumers, resulting in a solid-state perfume (Dobson-Waitere *et al*, 2021). It was sometimes mixed with other plants and gums to modify the scent – with one of these being the compound known as the 'Grand Māori Perfume', which combined taramea with the aromatic ferns mokimoki and piripiri, resin from tarata (lemonwood), kōpuru (scented moss), kāretu (scented grass), and the roots of pātōtara – though there were probably a number of different formulations (Tipa, 2007, 2020).

It appears much of the taramea that was harvested was used by those who collected it. However, because of its desirability, it was also exchanged across both the South and North Islands. Ngāi Tahu had an extensive trade network that spanned the South Island, and connected into North Island trade networks, with key trading hubs along the East Coast of the South Island, including Kaiapoi (Rout and Reid, 2109). On his first voyage, Cook noted that some Māori he encountered wore small bags of taramea around their necks (Chambers and Chambers, 1897). These sightings were made at Young Nick's Head and Mahia Peninsula, in the Hawkes Bay region on the East Coast of the North Island, indicating the extent to which taramea was traded (Orchiston, 1972). Most long distance trade conducted during the traditional period was focused on the exchange of geographically-specific and/or highly-valued commodities or prized services. Ngāi Tahu had an essential monopoly on three of the most prized commodities, pounamu (greenstone), tītī (muttonbirds) and taramea. Taramea was a useful trade good not just because it was widely desired but also because the processed sachets of taramea resin were small and light, enabling easy cartage, yet highly valued (Dobson-Waitere *et al*, 2021).

While most long-distance trades involved a direct exchange of goods or services, and can be located at the more utilitarian barter end of the Māori exchange spectrum, mana also played an important role as almost every exchange in the traditional Māori economy carried social obligations. They were reciprocal exchanges where the 'gift' obligated the receiver to provide a 'gift' of equal or greater value at a later date (Metge, 2002). This reciprocating gift exchange helped create and maintain relationships between individuals and groups (idem). Taramea, as a prized taonga, was also often a 'gift' given by one chief to another, with this 'gift' helping to cement connections between chiefs and hapū (Waitangi Tribunal, 1991). Cook observed that "[a]mong the northern Hawkes Bay natives sachets [of taramea] were worn only by the 'principals amongst them' – i.e., rangatira" (Orchiston, 1972, p. 98). It was also used as barter. In the 1840s, a Ngāi Tahu informer told Shortland of "the importance of the oil as barter and as a gift between Māori chiefs living on the southern coast of the North Island" (Dobson-Waitere *et al*, 2021).

It is useful to think of the trade in taramea as involving several links in the supply chain, with a mixture of both reciprocal obligation and barter occurring across different links, with the former more important between politically and socially connected groups and the latter growing more salient as the taramea travelled further from its source. That said, Shortland does note that taramea was sent "to the north side of Cook's Strait, either as barter, or as a present from one chief to another" (Shortland, 1851, p. 217) While the small-scale exchanges of taramea have faded from the historical record, the larger trades can be traced. Torlesse documented a barter between members of the iwi Ngāti Kahungunu from the North Island, who trading preserved kumara, mats and canoes with Ngāi Tahu in exchange for pounamu, tītī, and taramea oil (Torlesse, 1958).

Where taramea was used by the harvesters or those in their wider hapū, the resin was sometimes applied raw. However, much of the time it was mixed with fats and other scents and kept as either an oil or a solid-state perfume. Best describes how gourds of taramea oil were sometimes marked with the owner's moko design to indicate that it was their possession, indicating that while the harvest rights were held at group levels, the oil was owned individually (Best, 1977). The solid state perfume was sometimes worn suspended around the neck in a scent bag, a hollow piece of wood or bone, or a bunch of feathers, with the wear's body heat melting and thus activating the scent (Tipa, 2007). There are also accounts of the infused taramea packages used to adorn tūpāpaku (corpses) of important people (Dobson-Waitere *et al*, 2021).

Chapter 2
Renaissance of the Fragrance as Part of Cultural Revitalisation

2.1 Te Rūnanga o Ngāi Tahu

Te Rūnanga o Ngāi Tahu (TRONT) was established in 1996 through the Te Rūnanga o Ngāi Tahu Act 1996. The Act prescribes, amongst other things, the status of Te Rūnanga o Ngāi Tahu, the members of Ngāi Tahu Whānui and their entitlements, and the Papatipu Rūnanga that are members of Te Rūnanga.[2] TRONT has two interrelated key functions, to receive and grow the settlement package and to protect and advance the collective interests of the iwi. Following establishment, TRONT adopted a corporate organisational model, creating a holdings corporation and a development corporation, which later, following the dissolution of its board, became the Office of TRONT. The holdings corporation – the Ngāi Tahu Holdings Corporation (NTHC) – is charged with growing the asset base (Barr *et al*, 2018). The Office is a centralised tribal development agency whose main function is to deliver cultural, social, economic, and environmental development programmes, which are funded by the dividends generated by the NTHC (idem).

TRONT is made up of 18 tribal council members elected from local hapū councils, called Papatipu Rūnanga.[3] Each Papatipu Rūnanga represents a hapū, or several hapū in some cases, and have clear geographical areas, with each regional Papatipu Rūnanga serving to uphold the mana of their people, the land, the sea and the natural resources in their territory. The governing council of TRONT is made up of a representative from each Papatipu Rūnanga, and each Papatipu Rūnanga has its own "governance structure and it is through this mechanism that the collective Ngāi Tahu voice in the region is represented and heard at local government and community level." These legally constituted governance structures, as Tau (2011) notes, emerged out of "small rural village communities that, in many instances, managed themselves informally, without even a bank account let alone a legal identity."

The Papatipu Rūnanga of Kāti Huirapa Rūnaka ki Puketeraki was incorporated in 1990 to provide the community with a legal form. The need for a legal structure had become increasingly important as the community participated in the negotiations around the settlement and started to prepare for the post-settlement environment.[4] The Incorporated Society is the main means by which the Papatipu Rūnanga operates, though it has also created a Trust that holds some land assets as well as an investment company called Pūketeraki Ltd and its subsidiary Taramea Fragrance Ltd (TFL).

In 2005, Te Rūnanga o Ngāi Tahu made the decision to establish an initiative called Whai Rawa, a savings scheme similar to KiwiSaver. As well as Whai Rawa, TRONT has several mechanisms via which it fosters cultural, social, economic, and environmental development, including the Ngāi Tahu Fund, which provides funding for projects designed to meet specific cultural objectives, Haea Te Awa, which provides funding to Papatipu Rūnanga for regional development, and the Tribal Economies division, which conducts and funds research on tribal economic development and is involved in a range of different strategies including aiding iwi member business development and providing funding for businesses at different stages of their development.[5] As well as providing support to Puketeraki in the creation of TFL, Tribal Economies has also

2 See https://ngaitahu.iwi.nz/te-rūnanga-o-ngai-tahu/ngai-tahu-governance/.
3 This paragraph draws on https://ngaitahu.iwi.nz/te-rūnanga-o-ngai-tahu/papatipu-rūnanga/.
4 See http://www.puketeraki.nz/About+Us.html.
5 See https://ngaitahu.iwi.nz/rūnanga/tribal-economies/.

been integral in the establishment of several key Ngāi Tahu businesses including Ngāi Tahu Pounamu, which sources, carves, and sells another of the key tribal taonga, and Ahika Kai, a platform for Ngāi Tahu food producers to sell their produce.

While TRONT itself works directly on cultural, social, economic, and environmental development programmes, because the larger iwi grouping only became more politically prominent following colonisation, it is also focused on empowering hapū. Te Rūnanga o Ngāi Tahu (2013, p. 24) explains that it "exists to support Papatipu Rūnanga and whānau. Papatipu Rūnanga have the opportunity to enhance their individual rangatiratanga and to generate significant and sustainable economic returns to meet their needs." As Reid and Barr (2015, p. 218) explain: "Ngāi Tahu [have] utilized the strengths of a centralized tribal corporate body to decentralize sustainable development opportunities for its constituent tribal members through utilizing its indigenous cultural authenticity and twenty-first century internet cloud-based technology." One of the eight aims in the strategic plan developed by Puketeraki is economic development, where they outline several key means of achieving their outcome of growing their economic base to be more secure:[6]

- Develop a balanced investment portfolio policy.
- Develop incubators with TRONT to develop new business ideas.
- Analyse the components of our current economic base and identify some growth areas and what we can do.
- Encourage our people to move back into the district to take advantage of any successful business ventures that we have established.

From the outset the commercialisation of taramea was intended to deliver broad economic, social, and cultural outcomes. As TRONT explained, the "aim of this project is to reinvigorate the Ngāi Tahu cultural practice of perfume-making and investigate contemporary commercial opportunities with taramea while retaining cultural authenticity for Ngāi Tahu whānau, hapū and iwi members."[7] Speaking of taramea, the chair of Puketeraki Rūnanga, Matapura Ellison, explains: "The idea of it being a special fragrance for Ngāi Tahu really got hold of me, and through the involvement of [Puketeraki] saw that it could become a part of our cultural story" (Tipa, 2020, p. 43). One of the issues surrounding cultural revitalisation was the loss of traditional knowledge. As one of the key architects of the programme explained, "Retrieving the mātauranga Māori surrounding this grass [taramea] is also an act of kaitiakitanga" (Smith et al, 2019, p. 4). He continued (ibid):

> We had to look up all the old recipes, but all the knowledge had been lost. There were some people who knew generally about how their great grandfather or grandma used to go and harvest it. So we did some research into the history that was left. Exact ingredients we couldn't find. For example, there was a specific moss but we still had to make the taramea ingredient.

A 2012 Ngāi Tahu summit on culture found that there were "not many left with the mahinga kai skills." (Ngāi Tahu Fund, 2012, p. 6). The ability for a commercial viable, yet traditionally oriented business such as taramea to help build and retain matauranga and tikanga would be invaluable.

[6] See http://www.puketeraki.nz/site/puketeraki/Strategic%20Plan%202013%20to%202018.pdf.

[7] https://web.archive.org/web/20160123123453/https://www.ngaitahuresearch.co.nz/taramea/.

2.2 Business development history of taramea

The French perfume company, Givaudan, was interested in partnering with Ngāi Tahu to take the product to international markets (Smith et al, 2019). However, Ngāi Tahu decided not to rush the development but rather to take a more cautious approach that protected their mana over taramea, instead focusing on making an oil before developing the perfume. TRONT initiated the research and development work taking place "with a view to help remove risk for future papatipu rūnanga and whānau investment."[8] Puketeraki worked with the tribal economies team at TRONT to explore the biology and chemistry of the plant and the potential business opportunities. The first phase of the project, from 2013 to 2016, had four key objectives:[9]

- Identifying taramea growing areas where high concentrations of key fragrance compounds are evident within taramea stock
- Identifying seasonal variations in key fragrance compounds and determine optimal crop harvesting times
- Identify and carry out safety and registration requirements for use of taramea products as a fragrance and cosmetic ingredient
- Establishing sustainable harvesting protocols and procedures for this crop.

The Ministry of Primary Industries' Sustainable Farming Fund provided support for the rūnanga and tribal economies team to begin sustainable harvest trials in 2014, and the harvested material was supplied to a contractor with experience distilling fragrances (Tipa, 2020). In 2018, Puketeraki released perfume samples for review under the MEA brand.

Soon after, the company Taramea Fragrance Ltd. was formed, with Puketeraki Rūnanga providing inventory management and order logistics. In 2019, MEA began to be sold, mostly through tourist souvenir and gift shops across Aotearoa New Zealand. The scents, formulations, packaging, and branding all underwent changes in response to retailer and consumer feedback. The company developed "strong marketing links with Ngāi Tahu Tourism, a logical business partner considering the number of tourists visiting iwi attractions and easy retail relationships for the company to build on" (Tipa, 2020, p. 44). MEA had only been on the market for a season when the COVID-19 lockdown began in March 2020. "Tourism businesses across the country were hit hard by the border closures and visitors are our key customers," company chair Bridget Giesen explains. Ngāi Tahu Tourism, along with many other tourism providers and souvenir stores across Aotearoa New Zealand, shuttered their operations in the wake of the lockdown, forcing TFL to reconsider their business model (Tipa, 2020).

8 https://web.archive.org/web/20160123123453/https://www.ngaitahuresearch.co.nz/taramea/.
9 https://web.archive.org/web/20160123123453/https://www.ngaitahuresearch.co.nz/taramea/.

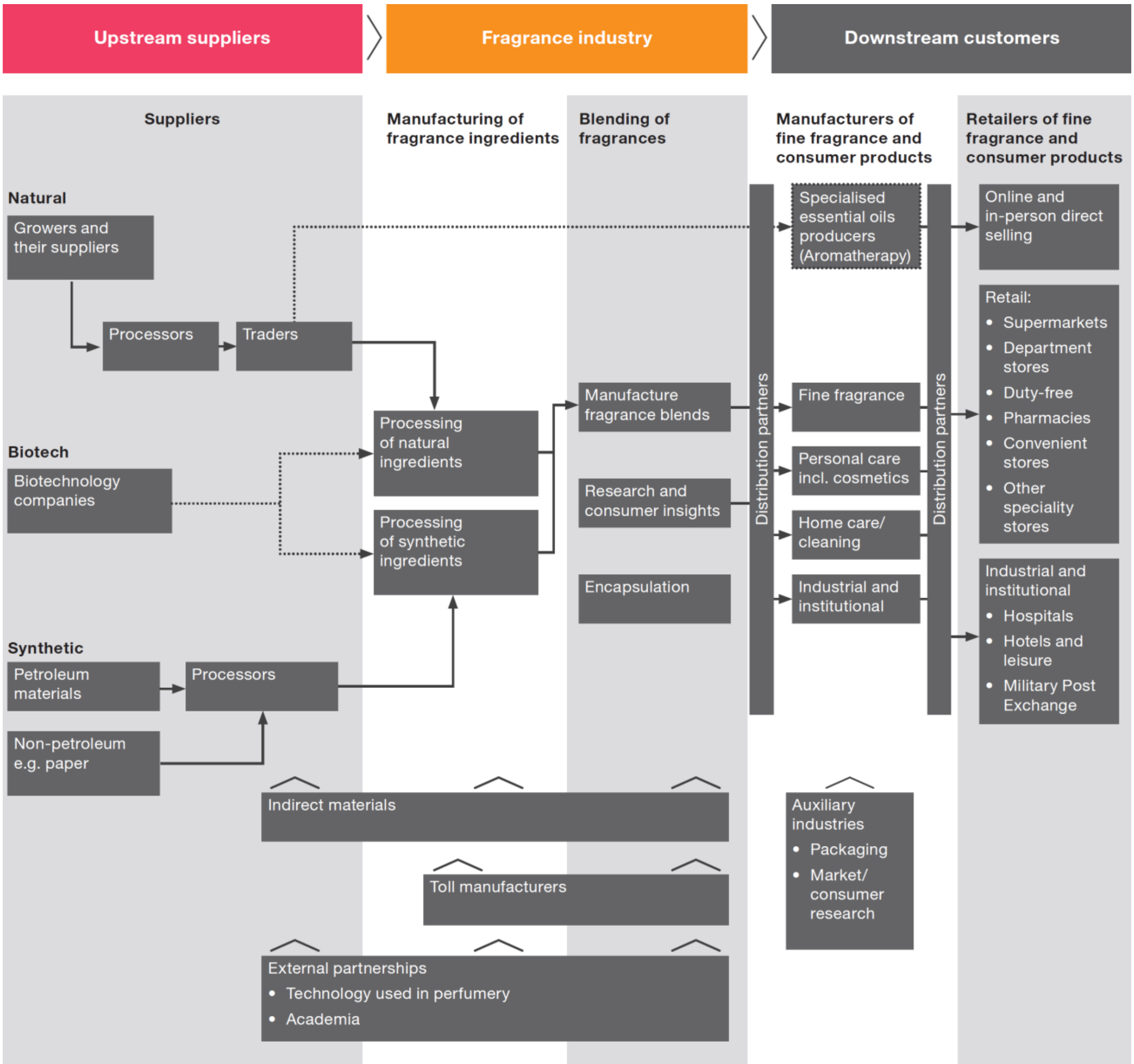
SECTION TWO:

MARKET OVERVIEW AND ANALYSIS

Chapter 3
International Market Dynamics

When discussing the perfume sector, a number of different intersecting spheres need to be identified. First, fragrances or scents generally refer to the raw materials while perfume is the finished product, which is generally a combination of fragrances or scents – though in some cases the word fragrance is used synonmously with scent. Secondly, there are three key links in the frangrance chain as shown in Figure 3.1 below: upstream suppliers; the fragrance industry; and downstream customers (PwC, 2019).

Figure 3.1: Value Chain of the Fragrance Industry



Source: PwC (2019), Figure 2, p. 8.

Thirdly, there are a range of different categories or uses of fragrances: fine fragrance; personal care, including cosmetics; home care/cleaning; industrial and institutional; and, specialised essential oils (PwC, 2019). The fine fragrance category is sometimes also divided into premium and mass fragrances, with premium representing the expensive luxury perfumes (e.g. those made by the 'Perfume Houses') and mass fragrances as low to mid price perfumes. Fourth, fragrances are categorised according to their concentration of essential oils.[10] The most concentrated form is called parfum. Parfum is the strongest smelling and longest-lasting fragrance and contains 20 to 50% essential oil. Eau de parfum is an alcoholic perfume solution with between 10 to 15% essential oil and eau de toilette (or cologne) contains between 3 to 8%, as shown in Figure 3.2 below.

Figure 3.2: Value Chain of the Fragrance Industry

Source: https://www.perfumedirect.com/pages/a-guide-to-perfume-strengths-and-types.

Fifth, while there are many different scents, these are generally put into four categories: fresh, floral, oriental, and woody, as shown in Figure 3.3 opposite.

[10] See https://www.perfumedirect.com/pages/a-guide-to-perfume-strengths-and-types.

Figure 3.3: Michael Edwards Fragrance Wheel

Source: https://www.perfumedirect.com/pages/a-guide-to-perfume-strengths-and-types.

3.1 History of the perfume sector

17th Century

The origin of modern perfume and the traditional perfume houses that produce it is generally traced back to the French King Louis XIV, who reigned from 1643-1715, though like many other developments modern European perfume is derived from Arabian culture, where distillation techniques had been developed over a millennia before the Sun King took such a fancy to fragrances (Moeran, 2008). Napoleon was also obsessed with perfume, and as well as personally encouraging its use he broke up the guilds that controlled its production, creating both a massive increase in producers and growing diversity in scents (idem). The French have long held a powerful economic and emotional sway over the perfume sector and this can be connected back to their central role in the sector in its early years in Europe.

19th Century

The 19th century "was a crucial time in the evolution of the perfume market, as it was the period when perfume products turned from being items of exceptional use into a broadly distributed, more widely consumed commodity" (Briot, 2011, p. 273). While perfumes did become more widely used during this period, they were still the domain of the relatively wealthy, however, and would not have been used by the poorer classes. These developments in the perfume industry "radically reshaped a differentiated market, not only opening it to democratization, but also permitting a luxury sector to emerge" (idem, p. 274).

France – having both the best location for sourcing ingredients in Grasse and the 'fashion capital of the world' in Paris – remained the epicentre of perfume during this century, with 139 perfume houses recorded in 1807 and 270 by 1880 (Briot, 2011). During the 19th century, the scientific revolution also saw the process of perfumery become increasingly sophisticated, with new methods and materials enhancing development and diversity, as the industrial revolution drove increasing scale, scope, and consistency (Moeran, 2008). Also, during the latter years of the 19th century perfumes went from being derived from single fragrances to becoming increasingly complex, composed of many natural and synthetic chemicals, with a diverse bouquet often referred to as having 'notes' (Cotton, 2014). There are generally three 'notes' considered in perfume (Schwarcz, 2017):

> The top note is what you smell when you first sample the perfume. This lasts only for 5 to 10 minutes. To really know if a perfume is for you, you need to get to its "heart", or the middle note. This is the scent that begins to emerge after the fragrance blends with your own unique skin chemistry. It usually takes about 20 minutes for the middle note to develop fully. The base note is the final expression of your perfume, that is, the scent produced when the fragrance has dried. It's the smell that lingers.

As the complexity of perfume increased and the gender divides in fashions also diverged, perfumes became increasingly gendered (Jones, 2010).

20th Century

Into the 20th century, France still had a near monopoly of perfume production in the West, with 356 perfume houses in 1914 (Briot, 2011). The early 20th century saw a number of key developments in the sector. In the 19th century, perfume had been made and sold exclusively by perfumers, the 20th century would see the beginning of the luxury fashion perfume brands that continue to dominate the premium sector of the market. In 1911, Paul Poiret became the first French couturier to launch a signature fragrance, named after his daughter, starting a trend that still dominates the premium perfume industry. Chanel No.5, first launched in 1921, was heralded as a revolution in the perfume world. While it is lauded as the first perfume created by applying modern chemical principles and the first to contain synthetics, it was predated by a number of other 19th century perfumes that introduced these developments (Cotton, 2014; Schwarcz, 2017). What Chanel No.5 did was take Poiret's innovation and those of previous perfumers who had mixed scents and used synthetics and package it into a far more powerful and enduring narrative. While Poiret had named the fragrance after his daughter, "Chanel placed her name prominently on every bottle and advertisement related to her fragrances, ensuring that her perfumes would always be linked to her brand identity" (Idacavage, 2018). She was also the first to mix what had been seen as 'respectable' floral scents with 'racy' musky fragrances, crafting a perfume that managed to sit astride both without crossing firmly into either. Chanel No.5 also saw many of the still current advertising techniques deployed, including the use of Chanel herself as the 'face' of the perfume. Despite its lack of originality in formulation, it was a landmark in the modern perfume sector.

1920s

While Chanel revolutionised the way perfume was branded, around the same time Francois Coty was dramatically initiating a wide range of changes in the perfume sector.[11] He wanted to expand the market and because of his outsider status in Parisian perfume circles he was not beholden to the standards practices and norms. He created an integrated supply chain including his own bottle manufacturing plant and research laboratories, hired his own team of salespeople, focused on international markets, created innovative bottle designs, and experimented with a wide array of different perfume bouquets, all with the aim of being able to turn what had been a luxury item preserved for the well-off to an everyday item for the mass which still carried a connotation of luxury. By the end of the 1920s, Coty held 60% of the French perfume market.

1930s

In the 1930s, the Great Depression saw a drastic decline in sales for the perfume sector, with some markets halving within a few years. There were signs of recovery during the decade, though this period also saw a dramatic shift in influence across the Atlantic, driven by the rise in American industrial capacity and Hollywood's growing dominance. While there were large international, and even multinational, companies in this decade there were many thousands of smaller boutique producers as well, many with city or regional sized markets.

1940s

During the Second World War, perfume sales increased in many countries, with more women earning their own income noted as a significant boost. However, it was after the Second World War that the modern perfume industry can be seen to emerge in a form that is still recognisable today. Perfume houses became increasingly global, large upstream suppliers with links to the petrochemical industry increased their control and began to develop many of the perfumes for the houses, marketing and branding became increasingly critical with the spread of radio and then television, technological innovations drove a diversity in fragrance and formulation possibilities and reduced costs, and the American market came to dominate.

1950s-1970s

The 1950s-1970s saw these trends continue, with the American market growing to 15% of the global market by the 1970s. During this period, more American businesses began to dominate the perfume sector, often bridging the gap between the premium fragrances and the newer mass fragrances and the period also saw the homogenisation of beauty standards around the world, as mass media spread Western, and particularly American, cultural norms. The costs of launching perfumes in the large American market also saw increasing conglomeration of perfume houses. Many American companies began purchasing French perfume houses during this period, with only 4 of the top 15 remaining in French ownership in 1970; however, this provoked a backlash and from the 1970s on "attempted foreign acquisitions of French perfumery firms were regularly blocked" (Jones, 2010, p. 209). Duty free shopping also emerged and was highly influential in the perfume market. By the end of this period, there was also growing interest in the provenance of the ingredients in perfumes and a related rejection of synthetic ingredients in favour of 'natural' ones.

[11] The material in this and the following paragraphs of this section draw heavily on Jones (2010).

1980s-2000s

These natural perfumes still remained niche during the 1980s and 1990s, though. The 1980s was dominated by powerful perfumes launched by big, well recognised luxury perfume houses, and this was matched by the increased dominance of the megabrands that were buying up numerous perfume houses. The 1980s also saw the start of celebrity endorsed or 'created' perfumes, with one of the most significant originators being Elizabeth Taylor's White Diamonds, launched in 1987.[12] While the 1990s saw a lighter, fresher fragrance, the underlying trends of big names and sector consolidation continued. With the collapse of communism in Eastern Europe, and the introduction of capitalism into China in the 1990s, the big brands moved into these new markets seeking to dominate. In four years during the 1990s, China's market doubled. Brazil, which had suffered economically in the 1980s, also became an increasingly important market in the 1990s. During this decade, the market for perfume expanded dramatically, and while there were some attempts to 'localise' these brands and their products, ultimately it was the cache that a perfume house based out of Paris, New York, or London which helped sell the luxury items. The 2000s saw the celebrity fragrance boom (Sinks, 2017). The first of these was the collaboration with Jennifer Lopez, which proved to be a surprise hit (Jones, 2010). The sales of celebrity perfumes halved by market share in the 2010s (idem). There were, however, a number of other trends and innovations that have come to dominate in the past decade and these deserve focused attention.

3.2 Current trends

Niche artisinal perfume brands

The 2000s saw disruption in the perfume market, with the launch of a number of niche luxury artisanal perfume brands, which proved highly successful, powering market growth so much that they shook up the traditional prestige market.[13] These brands are run by smaller companies, generally with no history in the perfume market, with limited distribution that are not typically found in traditional perfume retail outlets. They generally have an in-house perfumer – the artisan and they often use unusual scents and notes.[14] These brands have an authenticity and have connected with consumers in a way the old established brands did not, with increasing numbers of customers moving away from the big brands towards smaller artisanal perfume companies, who they felt were more honest and a better reflection of them (Jones, 2010). These brands are often 'edgy', 'cool', 'understated', and even 'hipster' in their approach, often forsaking synthetic elements for natural and exotic ingredients (weinswig, 2017). In early 2010s many of these were purchased by traditional prestige brands, and these artisanal perfume brands had captured around 10% of the total market during this decade (Reilly, 2019). Take Le Labo as an example, Reilly (2019) notes that the artisanal brand was

> … born in downtown New York City in 2006. Despite having minimal packaging, no advertising, no Instagram influencers and no celebrity attachments, Le Labo quickly grew into a cult brand so popular that The New York Times published an explainer piece on their most successful fragrance, Santal 33, calling the smoky, sandalwood scent 'that perfume you smell everywhere'.

By 2014, Le Labo was valued at $US20 million when cosmetic giant Estée Lauder bought the brand for an undisclosed sum. As an industry insider notes, "[s]uper-premium and niche brands are a major driving force in fragrance – customers are looking for a unique scent that stands out in the crowd" (Reilly, 2019).

---

12 See http://perfume.org/all-about-perfume/The-rise-of-celebrity-fragrances.

13 See https://cosmeticsbusiness.com/news/article_page/Cosmetics_Business_reveals_the_5_biggest_fragrance_trends_in_new_report/155392.

14 See https://www.olfactif.com/blogs/blog/designer-to-artisan-niche-and-independent-what-exactly-does-it-all-mean.

Mass fragrances and traditional prestige brands have remained relatively stagnant in the 21st century as the artisanal brands have grown.

Scents with stories

Closely linked to the trend in artisanal perfumes, there has also been a rise in the importance of the provenance of perfume. Increasingly, people want a scent with a story, one that is authentic and interesting. Consumers “are choosing products with authentic stories of craftsmanship. Fragrance brands are tapping into the trend by marketing artisan experiences.”[15] Niche brands have led the way as they “blend storytelling into both their packaging and their marketing, highlighting the artisanal qualities of the brand, ingredient quality, and the qualifications of the perfume maker. Showcasing innovation and expertise in the field though craftsmanship helps niche brands stand out.”[16] Story telling is one trend that has become a stronger part of the fragrance industry. As fragrance expert Castles explains, “[t]his is not new of course, early fragrance houses used stories from the past or mythology to build concept and scent. However, it has been reborn in contemporary fragrance houses to create personality and emotion in each crafted note.”[17] As Castles continues, “[t]here needs to be purpose behind any creative endeavour – ‘why does it exist?’ – ‘what is it’s point’ – customers demand reason, we don’t want to just be blindly sold something made for commerce, we need to feel passion and purpose, honest endeavour and conceptualised thought process. Many new brands have used story telling to individualise their fragrances and give an inlet to their brand so that customers can feel an intimate connection with their chosen scent.” While the niche brands have kick started this new focus on storytelling, the more established brands have also got in on the act.

Unisex Scents

Another emerging trend is for unisex perfumes. Up until the early 20th century, perfumes were not gendered. Then in 1921 “Chanel launched its now-iconic No5, and Coco Chanel marketed it to women” (Fallon, 2021). As an industry expert explains (Sue Phillips, quoted in Fallon, 2021):

> “This was followed by a slew of other ‘designer fragrances’ that were also marketed to women, such as Dior and Arpège, and suddenly ‘perfume’ became the fragrance name associated with women,” she explains. “The most famous American men’s cologne actually started out as a women’s fragrance under the name of ‘Early American Old Spice,’ but it flopped, so it was re-released as the new ‘Old Spice’ in 1937 and targeted to men, thus began the marketing of ‘colognes’ for men.”

Gender became a defining component of perfumes, with floral and oriental notes usually assigned to women and musky and woody tones to men. This is a second coming for unisex perfume, in 1994 “the launch of CK One revolutionised the fragrance scene, blurring its gender lines with a clean but sexy citrussy scent that provided a welcome change from the ostentatious, Dynasty-esque fragrances ubiquitous at the time”.[18] Niche brands have capitalised on the mainstream’s very gendered approach by doing the opposite and “releasing conceptual scents that blur gender lines.” For example, CK One ‘notably smells citrussy and woody: citrus has long been used in both traditionally male and female scents, whereas in the past woody notes were always marketed as ‘male’.” In the 21st century, with “identity and gender in the spotlight, a truly anything-goes approach to gender and perfume is gaining traction.” Driven by wider societal changes, these gender fluid, non-binary scents have gone from 17% of fragrance launches in 2010 to 51% in 2018, a fairly dramatic increase.

---

15 See https://www.flavorchem.com/trends/top-fragrance-trends-driven-by-millennials/.

16 See https://ecrm.marketgate.com/Blog/2016/06/Why-Celebrity-Fragrances-No-Longer-Sell.

17 See https://www.mindfood.com/article/the-future-of-fragrance/.

18 This quote and other material in this paragraph are drawn from Fetto (2020).

Personalised perfume

Personalisation has become common across many industries, with the perfume sector catching on to this trend recently. Personalisation, or customisation, can mean many things, from fragrances that are customised to match an individual's exact DNA, to fragrances that match the preference of an individual, as well as producing packaging with personalised touches such as the person's signature or preferences for specific bottle designs. Around half of customers in key markets have indicated they would like personalised perfume (Pitman, 2018). Mintel has "determined that consumers are eager for bespoke convenience, seek out companies with a progressive understanding of gender, expect their rights to be recognized, and desire smart value-added technology" (Utroske, 2014). IBM has invested in extended research in the perfume industry, specifically with their AI called Philyra, with the aim of cashing in on the personalisation trend (lieber, 2018). Philyra replicates the fragrance making process, just like a human apprentice, and crafts fragrances for different segments of customers. The algorithm studies existing fragrance formulas and compares the ingredients to other data sets, like geography and customer age, developing new perfumes that target very specific market segments (idem).

Fragrance wardrobes

The signature scent has long been a common trope in perfume, where someone has a particular fragrance they feel represents and symbolises them, often tied to brand loyalty. In recent times, the concept of a fragrance wardrobe has become more popular, turning the idea of a signature scent on its head. As one perfumer explains, a "growing trend in the fragrance world…. [is] treating perfume as part of your wardrobe, more akin to the clothes in your closet than to the shampoo in your shower" (Sullivan, 2014). Sullivan quotes fashion publicist, Sophie Contie:

> "Just as logo madness and wearing the same designer head to toe every day is no longer cool, I don't want to buy one perfume and wear it all the time," she explains. "But the scents in my wardrobe can't be too far away from each other. I want there to be a common thread, so if you smell me during the day in one, you'll still get me at night, in something else."

Sullivan observes, "In fashion, that's called style."

The chief executive officer of Estee Lauder noted this trend within his family, his grandfather had a signature cologne and never changed it, but his own son has not shown the same loyalty, which he notes is an attitude typical of younger consumers who switch between niche brands and opt for smaller bottles: "The new generation really looks at fragrances as a wardrobe but not anymore as a personal signature" (Wong, 2016). Just as with a clothing wardrobe, a fragrance wardrobe may be built to suit the seasons, or it may have everyday wear and scents for special occasions, or it may be built around fitting with different moods. The experimental multi-scent approach "has prompted the industry to adopt smaller sizes, such as rollerballs that come in at around 10 millilitres. That's the fastest-growing form of packaging, with an increase of 50 per cent or more last year, according to Euromonitor data. Most other sizes either dropped or grew less than 1 per cent" (Wong, 2016).

While originally creating a fragrance wardrobe meant purchasing single standard sized bottles, a number of companies have caught on to this trend and are releasing multiple perfumes at a time, often in smaller sized bottles. "Sales of US perfumes less than one ounce in size have increased by 16% in the last two years, more than two times faster than the overall women's fragrance market." (Weinswig, 2017, p. 8). Perfume companies are, unsurprisingly, "also pushing these collections, as they are sold at higher margin markups" (idem). These smaller bottles also help younger consumers purchase perfumes, As an industry expert notes, "[a]nother serious issue is how to keep in touch with Millennials on the issue of the price.

This is why many brands have started to sell smaller bottles — 30ml instead of 100ml — so they can be purchased more easily by younger consumers.”[19]

Sustainable, safe, transparent, and functional fragrances

There are a set of developments in the sector which can be loosely grouped together. Firstly, there has been an increasing move to sustainability across the supply chain. Sustainable fragrances represent a balance between social welfare, economic growth, and environmental protection, including following fair-trade ethics, responsibly minimising waste, and using renewable resources.[20] As Allied Market Research notes, the “[r]ise in demand for eco-friendly, natural, and custom-made perfumes along with higher standards of living are some of the key factors that are expected to drive the market growth during the forecast period” (Andrews, 2021). Alongside this has been a movement towards ‘safe scents’, either synthetic or organic. This has been matched by regulatory changes that have seen the “ingredients and the amounts perfumers are allowed to use… increasingly being restricted by the International Fragrance Association, which regulates the industry” (Cotton, 2014). Both natural and synthetic fragrances have been targeted, with oakmoss, jasmine and ylang-ylang all facing restrictions for causing allergic reactions. Closely related to both sustainability and safe scents has been the rise in transparency, particularly regarding ingredients. Fourth, there is a trend towards ‘functional fragrances’ that have health and wellbeing benefits. “Fragrances are now expected to lift moods, calm or even boost mindfulness”, Weil writes, “and they’re swiftly being conceived with these and other functional attributes” (Weil, 2021).

Flanker fragrences

A flanker is a new version of an existing fragrance, and it’s often in a new version of an existing bottle. “These fragrances generally represent reinterpretations of classics, of already popular juices” (Carrement Belle, 2021). The “perfumer must therefore reformulate the original composition by adding a touch of novelty. This can be summed up by the addition of new ingredients or changes in dosage to highlight a particular raw material. It all depends on the demand and wishes of the perfumer. So, there are several variations. We can find “rejuvenated” versions of older best-sellers, but also “virilized” formulas of feminine fragrances, and vice versa” (idem).

Product design and packaging

The design of the bottle and packing is critical to perfume sales. The bottle and packaging symbolises the scent, and the design should also encapsulate the scent and the brand:[21]

> The design of a perfume’s packaging is the conduit charged with appealing to human psychology and to the details. It associates a brand with values or abstract concepts that are positive or desirable for the potential consumer (status, youth…). A perfume bottle is easily identifiable and recognisable by the consumer. So it may be one of the most powerful tools to set itself apart from all the rest.

While bottle and packaging design has always been innovative, “[c]ontemporary perfume bottle designs have become bolder and even iconoclastic, using unexpected and odd shapes, such as the human form, which don’t usually inspire motifs for packaging” (Alpha Aromatics, 2021). There is no one single trend in bottle and package design other than a growing divergence and experimentation, with thousands of new scents released every year companies need their product to stand out from the crowd. That said, there have been a number of new packaging trends that align with the move towards sustainability. A number of companies have introduced refillable bottles, while others have trialled compostable carton packaging,

[19] See https://www.businessoffashion.com/articles/news-analysis/pitti-fragranze-tradeshow-deciphering-the-fragrance-market.

[20] See https://keiseimagazine.com/the-rise-of-sustainable-perfume/.

[21] Quote is retrieved from: https://littlebuddhaagency.com/blog/perfumes-packaging-marketing-tool/.

while another has wrapped their fragrance in reusable plastic tray and scarf.[22] However, at the other end of the spectrum, glamour and sophistication have also been trending, with luxurious bottle designs trending in the 2010s (Redding, 2015).

In terms of the product functionality there have been a number of trends and changes. The spray on the bottle has also been the focus of new innovations. In terms of perfume packaging, the spray remains a major element that will modify the physical characteristics of the product. Companies have been trialling a number of different spray methods, changing the size of the particles, the length and fan of the spray and a number of other adaptions to provide users with different experiences.[23] For example, there are spray options that provide a mist which coats the user's body – popular in Brazil where it is humid and hot – while another new application method is frescanizing, which sees the perfume rubbed onto the body.[24]

Closely related, a new trend has been for solid rather than liquid perfumes, or rather return to solid perfumes as these dominated for thousands of years. One of the advantages of solid perfumes is that they do not need to contain alcohol, meaning that they are able to be used on more skin types, and another is that they often do not require the same degree of packaging sophistication and complexity, reducing waste and lowering transport costs (Wallis, 2021). As a artisanal manufacturer of solid perfume explains: "It definitely is a trend in recent times. Solid perfume tends to be produced in smaller quantities and is taking off post-COVID with the proliferation of eCommerce platforms. It's easier and cheaper to ship solid perfume than conventional spray perfumes, [which means they can] reach a wider customer base" (idem). They also last longer, "[e]ven with the same fragrance and the same quantity used, solid perfume will last longer. However, the sillage [the trail created by a perfume when it is worn on the skin] of the fragrance will be greater with a spray perfume" (idem).

Market size and share

Statista (2021) notes that revenue in the fragrances (perfume and Eau de Toilette) is projected at US$52bn in 2021 and the market is expected to grow annually by 3.5%, with most revenue generated in the United States (US$$7,971m in 2021). Although the US is the biggest market, France remains the biggest exporter, while the Asian market is the biggest growth region and South America – particularly Brazil – is also growing (Kumar, 2005). The East Asian market is smaller than South Asia – each region contains a billion person plus populace. Brazil accounts for three quarters of the South American market and is half the size of US/Western & Central Europe markets and twice the size of any Asian region (Statista, 2021). Euromonitor shows that the women's perfume market is twice the size of men's, while unisex perfumes are around a quarter of the men's market.[25] Overall the market has reached a certain level of saturation with approximately 300-400 new fragrances being launched onto the market on a yearly basis in the early 2010s and several thousand near the end of the 2010s (Carey *et al*, 2016; Ali, 2019). Of those 300-400, "[w]ithin three years only 40 will still be on the shelves and maybe 10 of them after five years." (Ngāi Tahu Research Centre, 2014). Many scents, other than those made by the artisanal brands, are produced under license by large, multinational beauty conglomerates such as Shiseido, Estée Lauder, L'Oréal, Revlon, Coty and Interparfums (Weinswig, 2017). Branded and celebrity fragrances under license are developed by perfumers at the main global fragrance and flavour ingredient companies (idem).

---

22 See https://www.beautypackaging.com/issues/2020-01-01/ view_features/the-trend-toward-glassification/.

23 See https://www.packagingdigest.com/personal-care-packaging/perfume-packaging-does-so-much-more-these-days.

24 See https://www.premiumbeautynews.com/en/aptar-unveils-the-secrets-of,12548.

25 See https://cosmeticsbusiness.com/news/article_page/Cosmetics_Business_reveals_the_5_biggest_fragrance_trends_in_new_report/155392.

The top five selling fragrances (and the company that sells each one) are (Ferreira, 2020):

- Arabian Oud (Arabian Oud Co);
- Jo Malone London (Estée Lauder Cos Inc.);
- Chanel Nº 5 (Chanel SA);
- Malbec (Grupo Boticário);
- Chanel Coco Mademoiselle (Chanel SA).

While French dominance somewhat diminished over the course of the 20th century, many of the major upstream suppliers of scents are still French and many of the most respected and longstanding perfume houses are French.[26] The upstream supply has shifted, however. Grasse went from having 2000 hectares under cultivation for at the start of the century to around 40 hectares at the end, as globalisation saw production shift to cheaper regions, although in recent years more land has returned to fragrance cultivation in Grasse as the importance of the provenance of the ingredients in perfume has grown.[27] That said, the fragrance sector has gone global along with every other sector. As PricewaterhouseCoopers note in their report on the sector: [28]

> The fragrance industry supports job creation and economic value around the world. It includes international regional and local businesses to deliver fragrance based products to the final consumer. The fragrance industry sources ingredients and materials from suppliers based worldwide. Its customers are manufacturers and retailers across the globe, serving global consumer markets.

The report observes that there are at least 45 countries where fragrances are made and over 50 where the ingredients are sourced.

Characteristics of consumers

Perfume is consumed by a wide variety of demographics around the world. However, some generalisations can be made and patterns can be discerned. Firstly, women make up about two thirds of the consumers. Mature consumers – those over 40 years of age –account for around a third of purchasing transactions (Carey *et al*, 2016). However, this older age segment is underrepresented in terms of advertising and marketing in the fragrance industry. Older women are also most likely to remain loyal to a scent, with “mature consumers’ purchasing decision-making… often linked to older or longstanding brands…in the fragrance market” (idem).

Younger consumers show a number of different patterns, with this so called ‘millennial’ cohort driving most of the trends outlined in the previous section. For example, there is a “growing trend of millennials veering away from signature fragrances and toward smaller vials with different scents from the same luxury brand, according to the Fragrance Foundation” (Weinswig, 2017, p. 8). “Millennials are the driving force behind the trends reshaping the sector… they want more transparency and more gender-neutral scents - often based on citrus smells” (Bolongaro, 2019). Millennials have also been seen as the driving force of the sustainable, safe, transparent, and functional scents that have been trending. (idem).

[26] See https://deborahweinswig.com/wp-content/uploads/2017/08/Reviewing-Trends-in-the-Global-Fragrance-Market-August-4-2017.pdf.

[27] See https://www.afr.com/life-and-luxury/fashion-and-style/how-frances-faded-perfume-capital-is-regaining-its-bloom-20190102-h19mx1.

[28] See https://ifrafragrance.org/docs/default-source/policy-documents/PricewaterhouseCoopers-value-of-fragrance-report-2019.pdf?sfvrsn=b3d049c8_0.

3.3 Country specific trends

United States

There is a growing preference for a variety of fragrances as opposed to a single signature scent, also growing momentum of the naturals trend/functional fragrances. In 2016, the $6.6 billion market for U.S. artisanal products and other premium fragrances was projected to grow 18% by 2020 while mass-market fragrances were forecast to drop 15% (Wong, 2016). Following a drop in 2020, US sales were up 32% in 2021 (Maguire, 2021). 33% of American women polled claimed that purchasing all-natural fragrances was important to them.[29] 44% of Americans between ages 18 to 29 use perfume daily, while 28% use perfume several times a week, and 8% use perfume once a week. In comparison, 41% of Americans between ages 30 to 49 use perfume daily, while 23% use it several times a week, and 6% use it once a week. Americans aged 60 and older are the least likely to use perfumes as only 22% of them use perfumes daily, while 18% use it several times a week. 15% of men never use fragrances (perfume & eau de toilette), compared to 8% of women, while 41% of women in the US use perfumes daily compared to 39% of men. "Shopper traffic has been declining in US department stores, which have traditionally been the main fragrance retail channel. Meanwhile, beauty category traffic has continued to shift to specialist beauty retail chains… as well as to off-price retailers and the online channel" (Weinswig, 2017, p. 1).

China

In 2017 only 1% of Chinese used perfume daily.[30] However, by 2030, it is predicted to be the second biggest market globally.[31] Increasing consumer sophistication means the premium fragrance market is growing – and perfume is popular as a gift – with brand recognition a key deciding factor.[32] However, younger consumers are increasingly turning to the niche artisanal perfumes.[33] These younger cohorts have an interest in local businesses and new brand discovery that is beginning to inject vitality into the sector (Williams, 2021).[34] Euromonitor has predicted that the niche and high-end perfume markets, dominated by imported brands is going to grow by 18% (idem). This prediction is backed by Tmall Global, recently "the platform's imported perfumes have increased by 70 percent year-on-year, and, among them, niche brands have the highest growth rate with three-digit growth year-on-year" (idem). The demand for imported artisanal and niche fragrances in China is significant enough that Tmall Global has launched a dedicated daily flight to transport fragrances between Europe and China (idem).

Brazil

Brazil is the second largest fragrance market in the world, "trailing only the US and ahead of Germany, France and the UK" (Ferreira, 2020). The US has a 16.5% share versus Brazil's 13.4%, yet, in premium fragrances Brazil represents only 1.4% of the global market (idem). The market is still focused predominantly on mass fragrances; however, the premium market is growing by around 8% per annum (Armstrong, 2017). Around 90% of the fragrances purchased by Brazilians are mass market scents, while

---

29 This and other data in this paragraph are drawn from: https://askwonder.com/research/us-perfume-market-m99cgw7dv; https://www.euromonitor.com/fragrances-in-the-us/report; and https://www.euromonitor.com/fragrances-in-the-us/report.

30 See https://www.businessoffashion.com/briefings/china/how-chinas-new-love-affair-with-perfume-is-changing-the-market.

31 See https://www.premiumbeautynews.com/en/china-will-soon-be-the-2nd-global,18529.

32 See https://www.cosmeticsdesign-asia.com/Article/2020/04/28/Fragrance-in-China-Sophisticated-consumers-shifting-focus-from-skin-care-to-premium-fragrances and https://seoagencychina.com/perfume-market-china-smells-money/.

33 See https://jingdaily.com/downloads/how-niche-fragrances-are-winning-over-young-chinese-consumers/.

34 See also https://www.voguebusiness.com/consumers/chinas-perfume-opportunity.

two national brands control 60% of the total Brazilian market share.[35] "The feminine prestigious fragrance market is 1.5 times larger than the masculine in both units and values, but it grew slightly faster than feminine (15% vs. 14.5%, respectively), mainly due to two major trends that continue to support market development in the region: the new volume options and the opening of new points of sale" (Ferreira, 2020). Almost everyone in Brazil owns and wears fragrances, with 90% owning and 84% wearing it regularly.[36] Brazilians favour 'fresh' scents, "freshness typically consists of lavender, herbal, citric, baby and fougére scents."[37] Because they often apply fragrances two or more times a day, in the Brazilian market there is a trend towards larger bottles. Market leader Puig pioneered large volume strategies (>126ml), especially for the male market (Ferreira, 2020).

United Kingdom

In 2016, the premium market grew by 8% while the mass fragrance market declined, however, the fragrance market is witnessing declining numbers of the previously profitable 25-34 year old consumers (Weinswig, 2017). Celebrity fragrances fell from roughly £56.5m in 2015 to £44.2m in 2016 (Parson, 2017). In 2020, total prestige fragrance sales declined by 17% though this was seven points less than the overall prestige beauty market.[38] Following a slump in 2020, UK sales are up 20% so far in 2021 (Maguire, 2021). The ongoing declining in mass-produced fragrances and celebrity scent sales sees the move towards prestige and niche fragrances rise. As more consumers "continue to head down the artisanal route in search of a unique scent, perfume houses are becoming increasingly daring with their notes, concentrations and creations. And just who is leading that charge? Homegrown talent" (Ali, 2019). UK online sales of fragrances grew by 20% in 2016, to £162 million (Weinswig, 2017, p. 4).

France

Premium fragrances dominate, but the market is saturated and there is also a lack of innovation.[39] In 2019, the top ten selling perfumes were all premium French perfumes: Lancôme La Vie est Belle; Dior Sauvage; Givenchy L'Interdit; Dior Eau Sauvage; Dior J'Adore; Jean Paul Gaultier Le Male; Bleu de Chanel; Paco Rabanne 1 Million; Dior Joy; and Coco Chanel Mademoiselle (Culliney, 2020). As the company responsible for compiling the data noted (idem):

> Even though it seems like we are assailed by a new fragrance launch or campaign every other day, the best-selling list is actually dominated by scents that have been around for a while. For instance, Dior unveiled Eau Sauvage in 1966. Joy, a relative newcomer on the list that was introduced in 2018, was Dior's first major perfume launch in 20 years. Likewise for Sauvage, which marked Dior's first new cologne in a decade… This shows that while successful fragrance launches can be few and far between – once a scent is beloved, it can be a money-maker for years and decades to come.

The same report showed that retail 'bricks and mortar' was still far more popular for perfume sales in France than online or other ways of purchasing.

Singapore

Premium fragrances by international houses dominate, but celebrity endorsed perfumes are not popular.[40] Singapore is the Asian hub for the big four fragrance manufacturers, which sees it play a

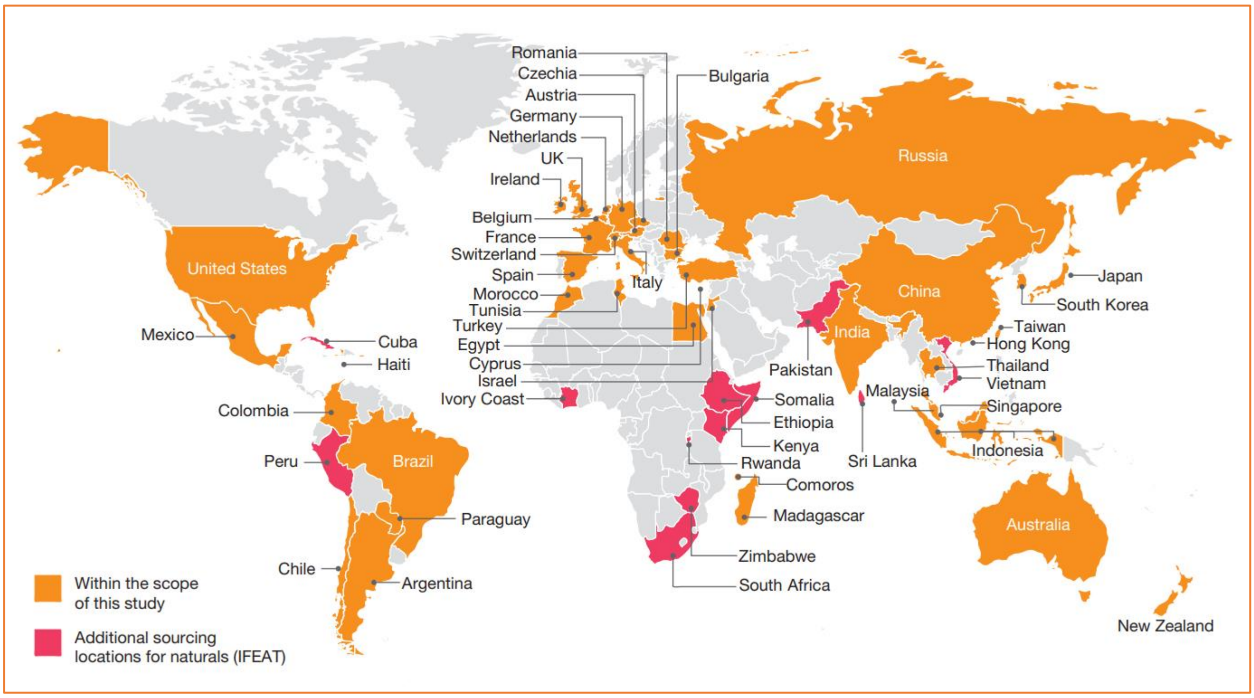
35 See https://kafkaesqueblog.com/2014/05/28/brazils-massive-fragrance-market/.
36 See https://kafkaesqueblog.com/2014/05/28/brazils-massive-fragrance-market/.
37 See https://paralelaescolaolfativa.com.br/artigos/brazil-an-indsiders-perspective-on-the-worlds-largest-fragrance-market/.
38 See https://cewuk.co.uk/npd-group-releases-report-on-the-changing-face-of-prestige-beauty/.
39 See https://www.euromonitor.com/fragrances-in-france/report.
40 See https://www.euromonitor.com/fragrances-in-singapore/report.

relatively influential role in the region.[41] As a Regional Head of Fragrance for one of the big four in Singapore explains, "South-east Asian, consumers are more scent-performance driven, and prefer smells that are more intense. They like complex florals, and are more open to gourmand fragrances – or food and fruity smells."[42]

3.4 Upstream production

The first links in the fragrance supply chain are the upstream suppliers. These are the companies that supply all of the necessary products and services to the fragrance industry. They include "providers of natural ingredients and bio-chemicals, synthetic manufacturers and companies that provide goods and services that aid the production process, such as providers of machinery and equipment, logistics and packaging" (PwC, 2019, p. 7). There are then, three key categories: natural and synthetic ingredients along with the goods and services needed upstream. The upstream supply chain is "diverse and global, supporting value generation, employment and wider community benefits" (idem, p. 4). As that report notes, "fragrance industry sources ingredients and indirect materials from suppliers globally"; for example, the PwC assessment included sourcing activities in 41 sourcing locations (idem, p. 16). This is shown in Figure 3.4 below.

Figure 3.4: Map of Sourcing Locations



Source: PwC (2019), Figure 7, p. 16).

PwC (2019) estimates that the supply chain expenditure for the three categories is €3.6bn annually, with 59% on synthetic ingredients, 20% on natural ingredients, and 21% on indirect materials. However, natural ingredients see greater value add per dollar spent, 1.1 versus 0.9 for indirect materials and 0.7 for

41 See https://www.edb.gov.sg/en/business-insights/insights/singapores-nose-for-success-its-sweet-smelling-fragrances-industry.html.

42 See https://www.edb.gov.sg/en/business-insights/insights/singapores-nose-for-success-its-sweet-smelling-fragrances-industry.html.

synthetic ingredients. Because natural ingredients are generally sourced from Latin America, Asia, Africa, and Oceania and are inherently more laborious to gather, they generate far more employment as well. Per €million spent by the industry they employ 250 people, versus 53 for indirect materials and 34 for synthetic ingredients.

There are four major companies that dominate the upstream production, including US based International Flavors & Fragrances (IFF), Switzerland-based Firmenich and Givaudan, and Symrise in Germany (Weinswig, 2017; see also Ngāi Tahu Research Centre, 2014). These companies do not just make fragrances but also flavouring and they have an "oligopoly of sorts" over both subsectors (Hahm, 2015). Premium fragrances make up roughly 10% of their total revenue (PwC, 2019). Givaudan is the market leader in fine fragrances, the company's fine fragrances division grew sales by 7.2% year over year in 2016 (Weinswig, 2017). A former VP from IFF comments on this trend:[43]

> Demand for natural over synthetic flavours and fragrances from consumers, and millennials, in particular, has resulted in much greater investment, research and acquisition activity in the natural space by the main four companies. The move into naturals goes beyond the taste profile, as the companies take into consideration what additional benefits they can provide to the flavours and fragrances industry.

There are seven key ways natural ingredients are made:[44]

> 1. **Steam Distillation**: This is the most common method of extraction. The plant material is placed in a container called a still. Steam is allowed into the still from below. As the hot steam rises, it carries the volatile compounds that make the essential oils with it. The steam is cooled, creating a water and oil mixture. These are then separated to create essential oils and floral waters.
>
> 2. **CO2 Extraction**: This process uses carbon dioxide as the carrier to remove the essential oils from the plant material. CO2 is pressurized so that it becomes liquid while still in a gaseous state. This is then pumped through the plant matter. The mixture is sent through a pressure-reducing valve to a separator. This process, although more complex, produces more consistent quality.
>
> 3. **Solvent Extraction**: In this process, a food-grade solvent is passed through the plant material. This produces a waxy, aromatic compound. This compound is mixed with alcohol and heated, releasing the oil particles. Finally, the oil particles are sent through a condenser, creating the final oil product.
>
> 4. **Maceration**: This process uses a carrier oil as a solvent. The carrier oil is passed through the plant matter, picking up the volatile compounds. The remaining solid residue is pressed to recover all the liquid. The mixture is filtered then strained and expressed. This produces what is often called "infused oils."
>
> 5. **Enfleurage**: During this process, the plant materials are placed in an odorless vegetable or animal fat, often lard or tallow. The mixture is allowed to sit while the scent enters the fat. This process is repeated with new plants until the fat is sufficiently saturated. Finally, alcohol is used to separate the leftover, unsaturated fat. This can be done either hot or cold.
>
> 6. **Water Distillation**: This process is very similar to the steam distillation process. However, rather than passing steam through the plant material, the materials are placed in water. The water is heated, creating steam carrying the volatile compounds. The rest of the distillation process is the same.
>
> 7. **Cold-Press Extraction**: The plant material is placed into a device that ruptures its oil sacs. The plant materials are then pressed to squeeze out the remaining oil. Using a centrifuge, the oil and other byproducts are separated and siphoned off into appropriate receptacles.

[43] The quote comes from https://thirdbridge.com/flavours-fragrances-givaudan-iff-firmenich/, published in November 2019.

[44] This text is reproduced from Sullivan (2019).

3.5 Other Scented Products

There are a number of other scented products beyond perfume. A recent fragrance trend has been scented products for the home, including scented candles, automatic sprays, plug-in scented oils, wax melts and room sprays. Dr. Carmichael, a psychologist, explains that the "way that a home is scented is extremely relevant to your mental health." Interior fragrances were a key growth driver for the fragrance category in 2016. "Diffuser sales increased by 19%, candle sales by 16% and home ancillaries gift set sales by 75%." New technological advances allow people to use a smartphone app to turn on their electronic fragrance diffusers before they return home. Similarly, many retailers are using scent systems in their stores to enhance the sensorial customer retail experience." Many luxury brands are "getting experimental with home fragrance trends instead of your typical lineup of perfumes." 2020 was a massive year for home fragrances, as many around the world were in lockdowns. As one expert notes, "[t]he home has been an office, sanctuary, space for learning and now socializing again. Therefore, home fragrance has a new role to play to support people's wellbeing and create different environments and not just to make a home smell nice." Total retail sales of home fragrances rose 6% to $9.3 billion over the year with the home fragrance market recording "'unprecedented growth' in 2020, as creating a sanctuary through scent and elevated candle vessels played a major role in the self-care movement during the COVID-19 pandemic." Many of the driving market trends in the wider fragrance/perfume sector were also apparent in the interior fragrance sector, including sustainability, wellness and the rise of niche operators. Candles remain the biggest seller, with "notable launch activity in lifestyle and premium offerings while marketers bridged the gap between beauty, wellness and home scent." Diffusers have also become increasingly popular, with "diffuser innovations such as steam tablets and room sprays."

Chapter 4
Historic Fragrances and Modern Fragrance Developments

4.1 Historic Fragrances

There are a range of different historic fragrances that can add some insight into the development of taramea. This section will explore some of the most common fragrances, outlining their origins and uses.

Frankincense

Frankincense is an historic fragrance, intimately connected to the Judeo-Christian religions. It has a long pattern of use that spreads from its native location in Oman across the Middle East and the rest of the world. It was one of the most valued trade items across the ancient Mediterranean civilisations going back almost 6000 years, and was being traded as far as China and India by 300BC (Spinner, 2010). Frankincense is resinous substance that comes from the bark of trees belonging to the Boswellia family. It was once exclusively reserved for kings and queens and has long been associated with religious rites, including embalming and mummification, and a wide range of medical applications.[45] While most of the world's supply comes from Somalia, Eritrea and Yemen, all conflict-riven countries which has negatively affected its production for decades, "peaceful Oman produces the world's finest – and most expensive – frankincense."[46] Omani frankincense has only been produced commercially for several decades and is used almost exclusively in premium perfumes, though growing interest for frankincense in essential oils and holistic medicine in the international market has added to the stress on the natural Boswellia habitat, seeing it become categorised as 'near threatened'.[47] It is commonly used as a key ingredient in perfumes, but because it works well as a fixative around 13% of all perfumes contain at least a trace of frankincense.[48]

Myrrh

Along with frankincense, myrrh is probably most famous for its appearance in the Bible. However, its history goes back almost 4000 years, when it was first used as a perfume in prayer by Egyptians.[49] In fact, this use of myrrh gives the modern name for perfume (per fumum, or 'through smoke'), as priests and believers thought that the smoke of incense was the only thing that could cross the barrier between earth and heaven. The Egyptians also used it in their embalming process. Myrrh then became popular with the Greeks and Romans. Myrrh has been used across the Middle East, Asia, and Mediterranean regions as an ingredient in incenses, perfumes, and cosmetics as well as in medicines for local applications. Myrrh is the aromatic resin of Commiphora, a small, thorny species of tree that grows across the Middle East and North Africa. Yemen, Somalia, Eritrea and Ethiopia are all significant producers of myrrh.

Patchouli

The story of patchouli shows how a fragrance can change in the way it is valued numerous times in its history. Patchouli comes from a flowering plant that originated in India, Malaysia and Indonesia and has

45 See https://perfumesociety.org/ingredients-post/frankincense/.
46 See http://www.bbc.com/travel/story/20190813-omans-ancient-biblical-scent.
47 See http://www.bbc.com/travel/story/20190813-omans-ancient-biblical-scent.
48 See https://perfumesociety.org/ingredients-post/frankincense/.
49 See https://perfumesociety.org/ingredients-post/myrrh/.

the most powerful scent of any plant-derived essence.[50] Patchouli's traditional uses ranged from medicinal to a range of 'domestic' applications. The leaves of the patchouli plant (patchouli comes from the Tamil words meaning 'green' and 'leaf) are a powerful insect repellent and the paisley scarves exported to Europe from India were layered in these leaves to protect them in transit. During the 19th century these scarves were highly fashionable across Europe and the strong scent of patchouli that infused them added to their desirability (Carrement Belle, 2020). The scent of patchouli was connected to the mystic of these newly appeared, high quality Oriental products and French perfume houses began to incorporate patchouli into their products.[51]

The perfumes were quickly linked to the 'demi-mondaines' or 'cocottes', the mistresses of wealthy Parisians, and were thus associated with seduction (Carrement Belle, 2020). Famous perfumer François Coty put patchouli in the spotlight in his famous Chypre in 1917 but it was in the 1960s that the scent went from the confines of luxury perfumes to the mass market. Patchouli became connected with the hippy movement, embodying both the new mystical spirituality coming from the East and the sexual liberation of its French history (idem). From the 1970s patchouli was tainted by its connection to hippies, who had used it to overpowering excess, and it fell out of use in most perfumes as trends moved towards more 'clean' and 'light' perfumes. It was only near the end of the 1990s that patchouli began to become a popular ingredient in perfumes again, and it has now returned as a staple in the more diversified contemporary market (idem). Over its history, patchouli has gone from being an insect repellent, to a mystical Oriental item, to a symbol of sexual liberation, to the smell of a counter-culture movement, to a common yet valued tool in the perfumer's arsenal.

Oud

Oud has been used in the Middle East for centuries and intricately linked to Arabian cultures and Islam. It possesses a cultural value, "a kind of olfactory nostalgia that is difficult for non-Muslims to grasp" (Osbourne, 2014). Oud oil "is burned in a house to give its rooms a deliciously purified feel; it is given as a present to wives, bosses, and clients; it permeates Arab life in a way that no other fragrance does. It has no equivalent in the Western world" (idem). The essential oil is extracted from fungus-infected resinous heartwood of the Aquilaria tree, which grows in the dense forests of Asia. Spreading to Europe along the Silk Road, it gained popularity in the 18th Century, with Louis the XIV loving the fragrance so much that he washed his clothes in the oil. In recent years, Oud has experienced a resurgence in popularity around the world, with many perfume houses releasing a fragrance using it as a base note. In recent years, it has exploded in popularity, and it is by far one of the most expensive raw fragrance ingredients in the world, selling for around $US5000 a pound.[52] Tom Ford's Oud Wood, launched in 2007, was one of the first Western scents to incorporate oud. However, the provenance of the oud is not communicated by many companies. One of the few perfume houses to do this is Fragrance Du Bois, who having commited to using only sustainably sourced ingredients, work with Asia Plantation Capital to source all their oud.[53] For each bottle of their oud perfume sold, Asia Plantation Capital works with Du Bois to plant one Aquilaria tree in association with the Plant Genetics Programme, supported by the Thai Royal Family. As Fragrance Du Bois explains, 'Oud Oil is fully certified and approved from CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora)".[54]

[50] See https://perfumesociety.org/ingredients-post/patchouli/.
[51] See https://suebovenizer.com/aromatherapy/list-of-essential-oils/patchouli/.
[52] See https://www.alphaaromatics.com/blog/what-is-oud-fragrance/.
[53] See http://www.africaplantationcapital.com/the-apc-group/about-asia-plantation-capital/.
[54] See https://fragrancedubois.com/collections/pure-oud-range.

4.2 Modern Fragrance Developments

This section examines some examples of interesting and relevant recent perfume developments.

Omumbiri

While omumbiri is an historic scent, it has only just become well known outside of its natural habitat in Africa. The development of a fragrance based on the traditional perfume plant omumbiri (a species of myrrh), used by the Himba, an indigenous peoples from Namibia, provides some insight into the revitalisation of an historic perfume. The Himba women mix omumbiri with ochre and butterfat, creating a red paste they cover their bodies with. As well as providing a fragrant smell, this mixture protects them from both the sun and mosquitos. It is also made into a dry perfume, mixed with around 20 other plants – many of which remain secret.

The local non-profit organisation Integrated Rural Development and Nature Conservation (IRDNC) began investigating the commercial potential of the resin from this shrub-like tree in 2004 (Galloway *et al*, 2016). There had been interest shown by international perfume houses leading up to this project, indicating it had commercial potential.[55] This process began as part of the Community Based Natural Resource Management programme and was guided by the "access and benefit sharing" (ABS) arrangements from the 2014 Nagoya Protocol, which Namibia has been at the leading edge of implementing (Galloway *et al*, 2016). ABS arrangements ensure "the benefits that result from their use are shared between the people or countries using the resources (users) and the people or countries that provide them (providers)."[56] After initial research into the viability of harvest and other technical matters in 2004-2005, a trust was created for those holding the traditional knowledge. This trust was formed to provide "collective marketing and decision making, and to secure ownership of the small essential oil distillation factory" (Galloway *et al*, 2016, p. 432). The first commercial harvest occurred in 2007, and IRDNC found a European buyer (idem).

A Himba woman explains: "We use this resin in our own culture, and it is also helping to maintain our culture… The Omumbiri project is important to us because we are able to buy food and other necessities, such as blankets".[57] While this project is portrayed as mutually-beneficial by the IRDNC, Wanjau (2020) has a different perspective, stating: 'Because the Himba have chosen to hold on to their traditional customs and practices, they have consistently fallen prey to a misconceived idea of poverty. The outside world sees them as backward and lacking when that isn't necessarily the case." As they exist outside the market economy, the Himba are viewed as poor, yet the average household has around 100 animals in their herds which are more than sufficient to provide for them. Wanjau continues (idem):

> [IRDNC] by itself venture into the Kunene region where the omumbiri grows and collect the resin as the area has been demarcated as a conservancy. Going in there for commercial purposes would at the very least, be deeply frowned upon. They can however partner with the Himba for economic gain, even though this essentially means trading with the tribe in a language that they are not wholly conversant with. The Himba after all, still view cattle as a primary medium of exchange.

[55] See https://byrslf.co/omumbiri-from-indigenous-perfume-to-designer-fragrance-1a80da4494cd.

[56] See https://www.cbd.int/abs/infokit/brochure-en.pdf.

[57] Cited from the Integrated Rural Development and Nature Conservation (IRDNC) website at http://www.irdnc.org.na/when-a-tradition-protects-a-culture.html.

The Himba harvesters earn $6.40 for every kilogram of resin that they collect, which retails for $490/kg (Wanjau, 2020). In their otherwise generally positive review of the development, Galloway et al. (2016, p. 438) do note that some of the Himba reported that "the commodification of Commiphora, among other things, has increased Himba involvement in a monetary economy, from a pastorally based economy where livestock is rarely sold." They also note that a "number of conflicts were observed and reported, stemming from disagreements over the sharing of communal benefits and a belief that certain families in the conservancy were excluded from leadership positions" (idem, p. 438).

There are now several different perfumes that incorporate omumbiri. One is Hymba by Sigilli, where the Himba are described as "obviously [living] off what little nature has to offer them".[58] This description is dismissive and patronising, suggesting little to no involvement of the Himba people and a limited conception by the perfume company beyond a noble savage view of indigenous peoples. After describing how the Himba women use omumbiri to coat their bodies, the perfumer explains "I was so fascinated by it that I wanted to create a perfume inspired by the Himba women. I buy Omumbiri and in my laboratories I transform it into a resinoid to give life to this fragrance."[59] This scent does not appear to provide any real connection to the Himba or their culture, and from its marketing and branding it is not a high end or high-quality product.

Another scent, Frazer Parfum Omumbiri, notes that "marks the first ever use of omumbiri, a desert resin (myrrh) sourced from the arid Kunene desert, that has been harvested for centuries by the nomadic Himba tribe in Namibia". [60] This product presents as more professional and boutique, and is an African-based company. However, on the company website there is no more explanation of the provenance of the product or of the connection – if any – between the perfumer and the Himba. As well as a liquid perfume it also comes in a solid-state form.[61] The outcomes for the Himba appear mixed and the product development is disconnected from them and their culture.

Five companies in Namibia use a portion of the essential oil to manufacture fragrance and skincare products for the tourism market and for export. Desert Secrets is one of the prominent manufacturers and suppliers of tourist market products in Namibia. It has a strong commercial orientation and its business strategy hinges on use of natural products from Namibia, ingredients derived from indigenous plants only and support for rural communities.

Mary Celestia

The discovery of a ship called the Mary Celestia sunk during the American Civil War off the Bermuda coast led to the recreation of a 150 year old perfume. Amongst the items salvaged was a bottle of perfume labelled 'Piesse and Lubin London' Zeldovich, 2020). The owner of a local boutique perfume store recognised the importance of the find, noting that the brand was from 19th century London and was worn by the Queen. Deciding to try to recreate this historic perfume, she took it to a perfumer friend who worked for a large international fragrance company with a gas chromatograph, which enabled them to reverse-engineer the chemical formula by reading the molecular composition of a scent and providing the names of the associated chemical compounds (idem). They detected notes of orange, bergamot, grapefruit, orris, rose, sandalwood, and musky animal notes, like civet (glandular secretions of nocturnal mammals) and ambergris (a secretion produced in the digestive system of sperm whales).

58 See https://www.fragrantica.com/perfume/Sigilli/Hymba-14939.html.
59 See https://www.fragrantica.com/perfume/Sigilli/Hymba-14939.html.
60 See https://surrendertochance.com/frazer-parfum-omumbiri-himba-of-namibia/.
61 See https://frazerparfum.co.za/collections/omumbiri.

While the molecular readout was easy to obtain, translating these chemicals into the associated aromatic compounds was not as easy. After finding out that Piesse and Lubin was "well known for producing a very popular fragrance called Bouquet Opoponax, so the two perfumers decided the mysterious substance in the recovered bottle was likely a precursor to that product" (idem). "After 110 iterations and some adjustments, like substituting synthetic musk molecules for the animal excretions and skin-safe solvents for the irritating stuff 19th-century people splashed on their capes instead of skin to mask stinky streets, the 21st-century version of the fragrance… was (re)born" (Smith, 2020). The two perfumers named their creation Mary Celestia, the first run of 1,854 bottles was a reference to the year the ship sank. The perfume has proved popular, with many more bottles produced since. Reviews of the perfume reference the interesting story and the perfumers attempts to recreate the scent in an authentic if updated fashion.[62]

Eau de Ancient Egypt

Back in 2012, archaeologists uncovered what they thought was the home of a perfume merchant at an Egyptian site called Tell-El Timai, which in ancient times was known as the city of Thmuis (Daley, 2019). The city was home to two of the most well-known perfumes in the ancient world, Mendesian and Metopian. In the house they found an area for manufacturing some sort of liquid as well as amphora and glass bottles with residue in them. There was no scent left in the bottles; however, they conducted chemical analysis of the residue in them, determining some of the ingredients. The archaeologists took this data to several experts on Egyptian perfume, who helped them to recreate the scents using formulas found in ancient Greek texts. The base ingredient in both perfumes was myrrh, with a range of other ingredients added, including cardamom, olive oil and cinnamon. These ancient scents were much thicker and stickier than modern perfumes and their musky scents had more staying power as well. "This was the Chanel No. 5 of ancient Egypt," one of the archaeologists explains, "It was the most prized perfume of the ancient world" (Imbler, 2019). To date, this has not been commercialised, but has been toured with an exhibition of the other items found at the site.

Authentic Saint Helena Eau de Cologne

The Emperor Napoleon was exiled to the distant island of Saint Helena in 1815. He had long been a connoisseur of perfume but during his time on the island he began running out of his usual eau de Cologne. His use of this perfume was more than just a personal habit, to prove to his captors he was still the Emperor, Napoleon had instituted a severe ceremonial regime and strict etiquette, closely mirroring the habits and routines he had maintained while he was sitting on the throne. One of his servants, the Mameluke Ali, managed to produce a similar perfume using ingredients found on the island. Ali's handwritten recipe for the Saint Helena eau de Cologne was passed to Jean Kerleo in 1991 who had set up and was then running the 'Osmotheque' scent library, near the Chateau de Versailles west of Paris, as a repository of fragrances past and present (AFP, 2012). The library holds over 2,500 fragrances, with 400 "[s]orted by number and type of fragrance... kept behind reinforced doors, in a cellar of a few square metres, preserved under artificial light and at a steady temperature of 13 degrees C" (idem). As a custodian explains, "[t]hese are our jewels, 400 fragrances that we guard especially jealously, perfumes from long ago, or ones that are no longer available on the market" (idem). Kerleo recreated Napoleon's eau de Cologne using Ali's recipe, and the perfume is now for sale. The company use the tagline 'be a part of history' and emphasise that the perfume has an authentic formula and an Imperial History.[63] "Give yourself the only olfactory recollection we have of the Emperor" as the website promises.

[62] See https://www.basenotes.net/fragrancereviews/fragrance/26144651.

[63] See https://www.napoleon-cologne.fr/en/napoleon-exile-island-of-saint-helena-9.

Sauvage

Standing as an example of the importance of authenticity, Dior's marketing of its men's fragrance Sauvage was quickly savaged by critics for its "juxtaposition of Native American tradition and a word that sounded a lot like a historic racial slur" and its simulatenous reinforcement of colonial tropes and cultural appropriation (Friedman, 2019). The promotional video featured Johnny Depp as a "white man laying claim to the wilderness", with Depp walking amid the red rocks of south-western Utah, stacking rocks to mark his path, as a Native American war dancer performed on cliff and a young woman, portrayed by Canadian actor of First Nations descent, followed Depp from a distance (Pierce, 2019). Dior had labelled the video as "an authentic journey deep into the Native American soul in a sacred, founding and secular territory" (Singh, 2019). However, it was quickly and widely condemned. "Scholars and critics have responded that the campaign is racist and a clear-cut case of appropriation" *The Guardian* noted (idem). One critic stated that it "glamorizes the objectification of Indigenous people" (Pierce, 2019). Dior pulled the video from YouTube within 24 hours. As Pierce explains, "[by] associating Indigenous communities with a wild, primitive landscape, and by centering the experience of a white "explorer," the ad calcifies dangerous colonial tropes and traffics in romantic stereotypes that relegate Native peoples to the past" (idem). Two weeks later, Dior cancelled the entire campaign. The portrayal of Native American culture was not authentic, as a spokesperson for a Native American media watchdog group noted, "I don't know how anyone in 2019 can think a campaign like this can go down well" (quoted in Singh, 2019).

SECTION THREE:

TAKING TARAMEA TO THE INTERNATIONAL MARKET

Chapter 5
International Market Opportunities

The first section of this report outlined the history of taramea. In particular, Ngāi Tahu's relationship with taramea was explored. It was demonstrated how historically taramea was a taonga linked to prestige and status, while also being a valued commodity traded and gifted across Ngāi Tahu trade routes and beyond. In the current era the taonga status of taramea remains for Ngāi Tahu, while commercial initiatives have been instigated to revive taramea production and trade, albeit traditional methods and techniques have evolved with the introduction and adoption of new technologies.

The new iteration of taramea production also brings several unique characteristics that are attributable to the post-colonisation context. First, taramea production is now both a manifestation and a driver of cultural revival as well as a maintenance project. Secondly, it is an economic development project aimed at providing employment and multiplier benefits – that is direct, indirect and induced economic impacts – to the Puketeraki Rūnanga and associated hapū. Thirdly, given the current environmental challenges in Aotearoa's land management, there has been an emphasis on ensuring the long-term sustainable use of the taramea resource to ensure that the mauri of the environment is not undermined through its production. Related to this, fourthly, care has been taken to ensure the mana of taramea is not undermined through its overexploitation.

Both the historic and contemporary taramea production model may be understood as having 'cultural credence attributes', that is, any taramea fragrance produced under this model carries with it a range of attributes that may be attributed to Ngāi Tahu and Puketeraki culture. This includes: the emphasis on safeguarding the taonga status of taramea; maintaining its cultural authenticity; building indigenous cultural revitalisation and social development into production processes; focusing on environmental sustainability and upholding the mana of taramea.

The detailed outline of international fragrance markets, covered in the previous section, demonstrates that many of these credence attributes align with various market trends, with numerous market segments not only interested in many of these characteristics but willing to pay a premium for them. There is a significant shift, particularly in premium markets, away from brands associated with conspicuous consumption, toward boutique artisanal perfumes that have a unique story, and are, what might be considered authentic, novel, and rare. Furthermore, such consumers are highly conscious of the social and environmental impacts of their consumption choices, and as such are looking toward products that have verifiable social and environmental credentials. This demand for authenticity is clearly illustrated in Dior's failed attempt to capture indigenous authenticity in their advertising campaigns, which led to widespread derision amongst its customers. Consumers have become increasingly savvy and can detect insincerity, whilst also seeking out authenticity.

As outlined in section one, TFL has been forced to reconsider its domestic business model following the significant decline of the tourism industry associated with COVID-19 travel restrictions. This, along with a broader ambition to explore taramea opportunities, means that there is now an appetite to take the taramea fragrance to international markets. However, knowing which markets to target, how to target them, and which cultural credence attributes will resonate most strongly with the consumer, and how much they are willing to pay for a product, needs to be well-researched before embarking on an export enterprise. This chapter details the market intelligence research undertaken to fill this information gap, beginning with the following section's overview of the methodology employed in the research.

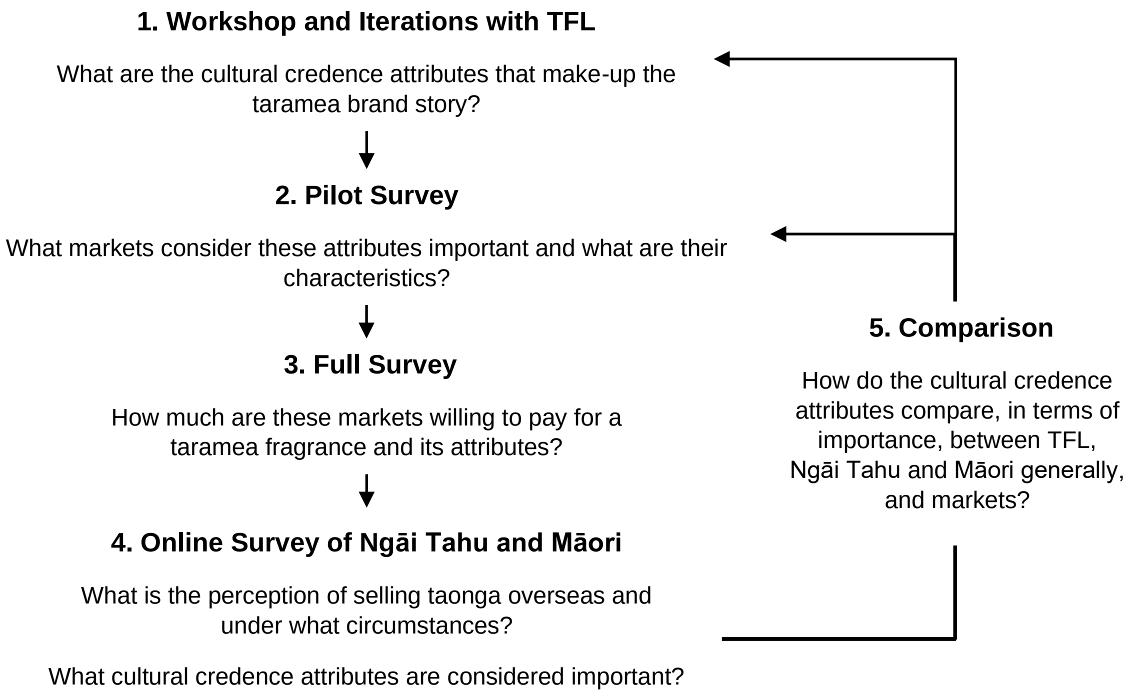
5.1 Methodology

The first goal of the research was to identify the credence attributes that TFL wanted to express to potential consumers. These attributes would underpin the 'brand story'. These attributes could then be tested in markets to ascertain how important different consumers considered these attributes. As a result, a workshop was conducted with TFL directors to identify important credence attributes, followed by a series of iterative engagements with individual TFL directors to arrive at a set of credence attributes.

Based on the international market analysis undertaken in section two above, it was determined that the consumers most likely to appreciate these attributes, and in turn the brand story, would most likely be located in large, wealthy, and progressive metropolitan areas that show a strong inclination toward artisanal perfumes with a unique and authentic story. Furthermore, significant growth in these artisanal market segments was noted, which is predicted to keep growing. Consequently, it was decided that three markets showed considerable promise in this regard: London, San Francisco, and New York.

A pilot survey of these markets was undertaken to test the importance of these attributes with consumers, and scope how much they were currently paying for their fragrances, how they liked the product presented, and how they preferred to undertake their purchase (e.g., online, department stores, or from perfumiers). From this analysis, New York stood out in terms of its interest in the taramea brand story, and subsequently a large quantitative survey of consumers in that market was undertaken to establish the price that these consumers were willing to pay for a product with taramea attributes.

Figure 5.1: Methodology of the Study



However, taking a product like taramea to an international market also requires tribal and Māori support generally, given the collective sense of ownership and interest in taonga. Tribal members, and Māori generally, have their opinions on how they would like their cultural brand story, conveyed overseas – given the strong connection between Māori identity and outgroup perceptions of that identity. Consequently, a survey was developed for testing the appetite of Māori for selling taonga overseas, and under what circumstances. Furthermore, a range of cultural credence attributes were tested primarily with the Ngāi Tahu whanui to ascertain the type of brand story they would like their collectively owned businesses to be perceived by consumers overseas. This analysis then enabled comparisons between the cultural credence attributes that Ngāi Tahu and Māori consider important in comparison to the consumers of their products. The entire method used in this research is outlined in Figure 3.1 on the preceding page.

5.2 Workshop and Iterative Engagement with TFL

As outlined above a workshop was undertaken with select TFL members to identify the cultural credence attributes they considered important to underpin the taramea brand story. The first workshop was conducted at Lincoln University and involved a planning session to design the research approach. The second workshop was undertaken at the University of Canterbury and employed an external facilitator. Through this process many ideas were brought forward and discussed. From this workshop the authors of this report distilled seven cultural credence attributes for testing in market. These attributes were then tested with members of TFL, and following feedback a final set, outlined in Table 5.1 below, was developed.

Table 5.1: The Credence Attributes of Taramea

CREDENCE ATTRIBUTES OF TARAMEA		
Para kore	**Purity**	The fragrance comes from the pristine southern alps of Te Waipounamu.
Mauri	**Vitality**	The taramea plant and fragrance carries vitality and is managed in a way that enhances the mauri of the environment.
Mana	**Dignity**	Taramea was the fragrance of chiefs. It conveys mana.
Whakatipu	**Revive**	This fragrance is made using restored cultural knowledge and processes.
Tino Rangatiratanga	**Empower**	The production of this fragrance supports the social and economic development of Pūketeraki and community.
Hāponotanga	**Authentic**	The fragrance is culturally authentic.
Taonga	**Exclusive**	The fragrance is sacred, precious, and rare.

Considering the research undertaken in section one, these credence attributes align with the cultural history that underlies the taramea initiative. The attributes of purity and vitality, both of taramea, and the environment it comes from, captures the intension of Ngāi Tahu and Puketeraki to maintain and enhance the mauri of the environment and in-turn taramea itself. The attribute of mana captures the historical context whereby taramea was the perfume of chiefs, while whakatipu encapsulates the efforts to revive and maintain cultural knowledge around taramea production. Tino rangatiratanga, or the attribute of empowerment, captures the intension of the taramea production system to support local and independent social, economic, and political development. Together these attributes tell a brand story of a tribe seeking its own empowerment and cultural revival through the development of a traditional perfume, and the development of a business that respects and upholds the mauri and mana of the environment in the pure mountains of Te Waipounamu. Furthermore, it tells the story of a perfume worn by chiefs, and created through unique and authentic indigenous knowledge, to establish a sacred fragrance that is exclusive and rarely available.

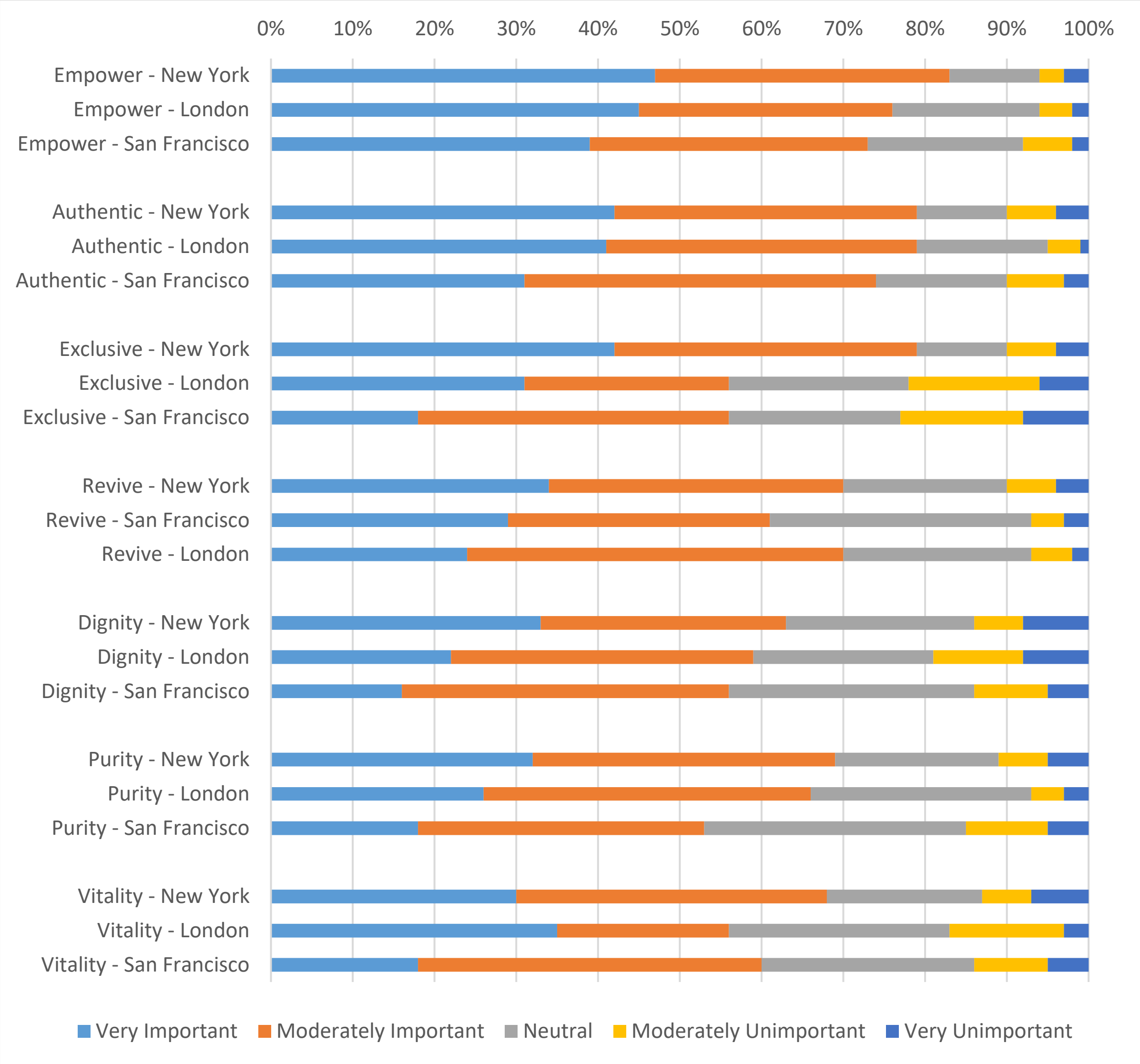
5.3 Pilot Survey

Following the workshop to identify credence attributes, these attributes were tested with fragrance consumers in three progressive wealthy metropolitan markets – New York, London, and San Francisco. In each pilot 300 participants were surveyed. The participants were screened using an ethnocentrism scale to eliminate any potential participants that harboured cultural prejudices that would skew the results. The results are outline in Figure 5.2 on the following page. The results show that New Yorker's consistently scored higher than Londoners or San Franciscans in considering the cultural credence attributes of taramea to be either very important or moderately important across most categories.

However, most credence attributes scored highly across the board in terms of their perceived importance. Interestingly, there was a consistent trend across metropolitan areas regarding the credence attributes that they consider most important to those they considered least important. Empowerment, or supporting the self-determined economic and social development of manawhenua was ranked most highly followed by authenticity and revival, or supporting the re-development of taramea practices. This suggested that a brand narrative most likely to resonate across these markets involves telling a story of the purchaser supporting the economic development, social development, and cultural revitalisation of Ngāi Tahu and Puketeraki, through the purchase of authentic product. New York stood out from the other two metropolitan areas in terms of its interest in the credence attribute of exclusivity, or the precious and rare nature of taramea. This was of less interest to Londoners and San Franciscans. Of least interest was purity and vitality – although these attributes were still relatively well regarded.

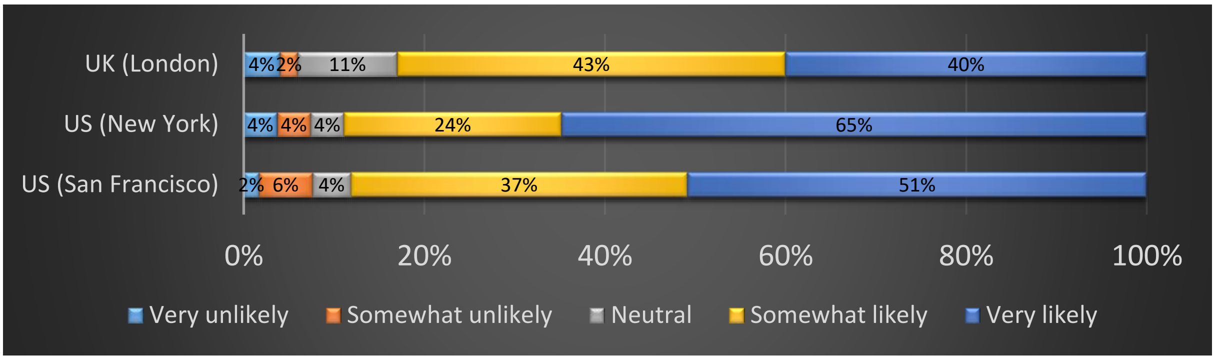
In addition to New York fragrance consumers rating the credence attributes of taramea highest out of the three metropolitan areas, New Yorkers also had the highest income levels, and in turn, disposable incomes. This income difference was reflected in the average amount spent per purchase by New Yorkers in comparison to San Franciscans and Londoners. New Yorkers spent an average of 1.3 times more per purchase than Londoners and 1.4 times more than San Franciscans. In addition, 41% of New York respondents were willing to pay what can be considered premium prices.

Figure 5.2: Importance of Taramea Attributes in New York, London and San Francisco



New Yorkers also showed the most openness to purchasing the product online. We were conscious that TFL already had an online sales platform established for selling taramea. Consequently, if consumers from New York were willing to purchase from Aotearoa online it would be a relatively straight-forward process for TFL to supply this market using their existing retail approach. We asked survey participants how happy they were purchasing perfume online based on the common practice of artisanal perfume houses posting perfume cards to potential consumers enabling them to sample the product before making online purchases. New Yorkers showed the greatest interest in purchasing using this method, with 65% saying they were very likely to do so, while a further 24% said they were somewhat likely. The likelihood of purchasing using this method was significantly higher than both Londoners and San Franciscans, which can be viewed in Figure 5.3 below.

Figure 5.3: Likelihood of Purchasing Online if Provided with a Perfume Card



5.4 Online Survey of Ngāi Tahu and Māori

As outlined above, taking a product like taramea to an international market also requires broader tribal and Māori support, given the collective sense of ownership and interest in taonga. Furthermore, tribal members, and Māori generally, have their opinions on how they would like their cultural brand story, conveyed overseas. Consequently, an online survey of 100 Māori, two thirds of which were Ngāi Tahu and associated hapū was undertaken. The survey was conducted on the SurveyMonkey platform (surveymonkey.com) and distributed via Te Rūnanga o Ngāi Tahu social media networks. Facebook data suggests that the advertisement for the survey reached 2500 Ngai Tahu users.

The questions were designed to determine the extent to which tangata whenua felt it appropriate to sell taonga overseas, and under what circumstances. Furthermore, it aimed to articulate the cultural credence attributes they considered important in the products sold. This survey did not focus on taramea specifically, as there was a risk that many potential respondents would not have enough understanding regarding taramea to be able to answer in an informed way. Instead it focused on sales of taonga generally overseas.

Figure 5.4 that two thirds of the survey respondents thought that it was tika (right) to sell taonga overseas sometimes, with just under 20% thinking it was never acceptable and just over 10% thinking it was always acceptable. Those who answered sometimes were directed to Question 3, to get details regarding the circumstances in which they considered it acceptable to sell taonga overseas.

Figure 5.4: Do You Think it is Tika (Right) to Sell Taonga Overseas? (n = 100)

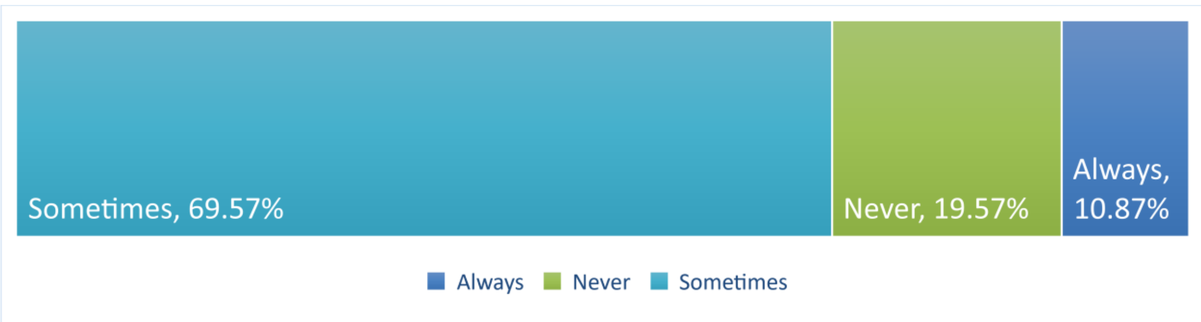
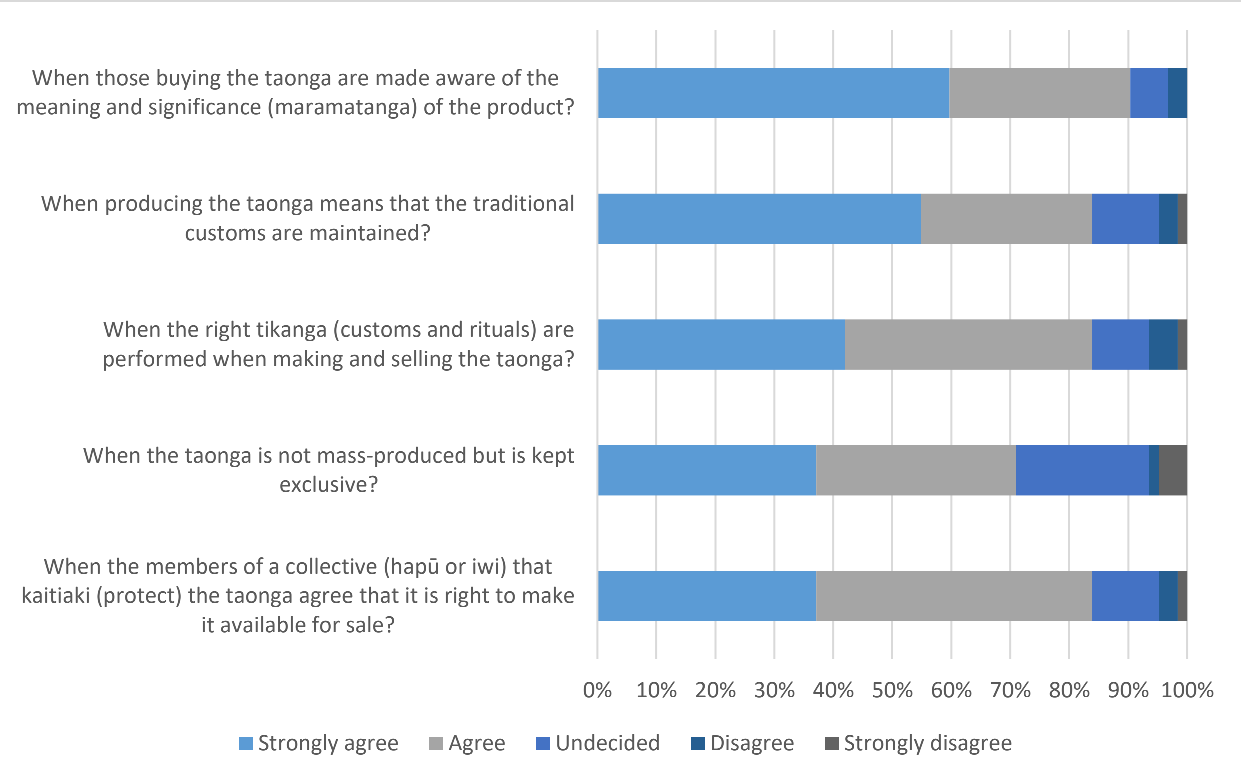


Figure 5.5 below illustrates that respondents felt most comfortable selling a taonga product overseas when the consumer was being made aware of the meaning and significance of the taonga. This was closely followed by support for selling taonga overseas when the sales supported maintenance of traditional customs. Also important was the use of the right cultural protocols when producing the product, that it is not mass produced, and that the kaitiaki of the taonga collectively agree that it is right to sell the taonga overseas.

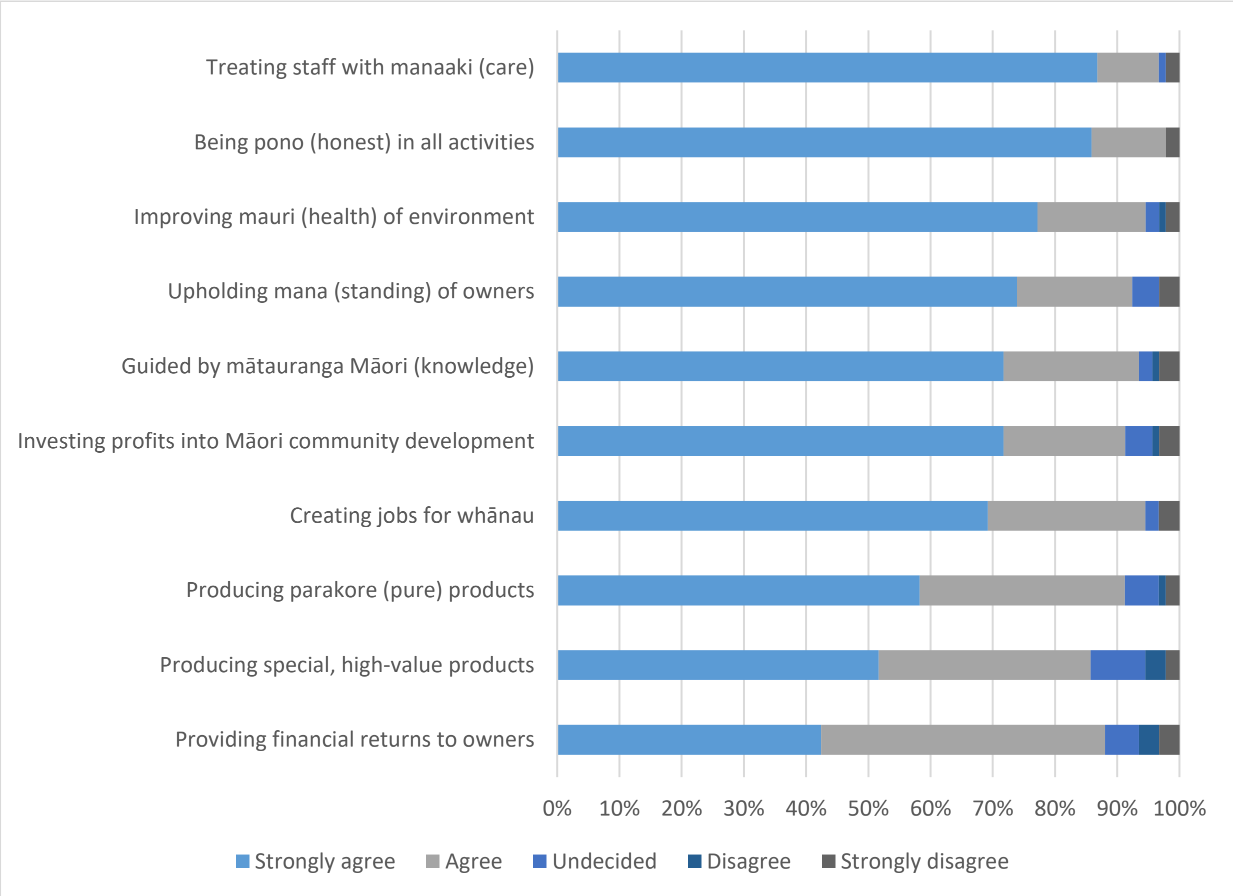
Figure 5.5: Under What Conditions do You Think it is Tika (Right) to Sell Taonga Overseas? (n = 70)



In general, over 80% of respondents agreed that it was right to sell taonga when the aforementioned criteria were met, apart from maintaining the exclusivity of a product, of which 71% agreed. Together these results suggest that TFL should feel comfortable about exporting taramea overseas given that over 80% of those surveyed considered it always or sometimes right. For those who considered it sometimes right, a vast majority considered appropriate when specific criteria were met. TFL, in their current and planned approach are likely to meet these criteria through ensuring that taramea is conveyed to markets as a taonga, that the initiative will be used to maintain customs and tradition, that right tikanga is used in the production process, and that there is collective agreement within the hapū for its sale.

In terms of articulating the cultural credence attributes they considered important in the products sold overseas, 90% of survey respondents found eight attributes that they either strongly agreed or agreed were important. These attributes were related to the way in which the business operated when generating the product. That which ranked most highly concerned the business operating in a way that cared (manaaki) for their staff, which was closely followed by being tika and pono (honest) in all their activities. Acting as kaitiaki through improving the mauri of the environment was rated highly, alongside upholding the mana of the collective owners, being guided by mātauranga Māori, investing profits into community development, creating jobs for whanau, and producing parakore (pure) products. The only two credence attributes that did not get over an 90% agreement rating were producing high-value products and generating returns for owners. However, both of these attributes scored over 80% in terms of agreement with their importance. The results from this analysis is provided in Figure 5.6 below.

Figure 5.6: How Māori Would Like the Businesses that Export Products to be Perceived Overseas (n = 100)

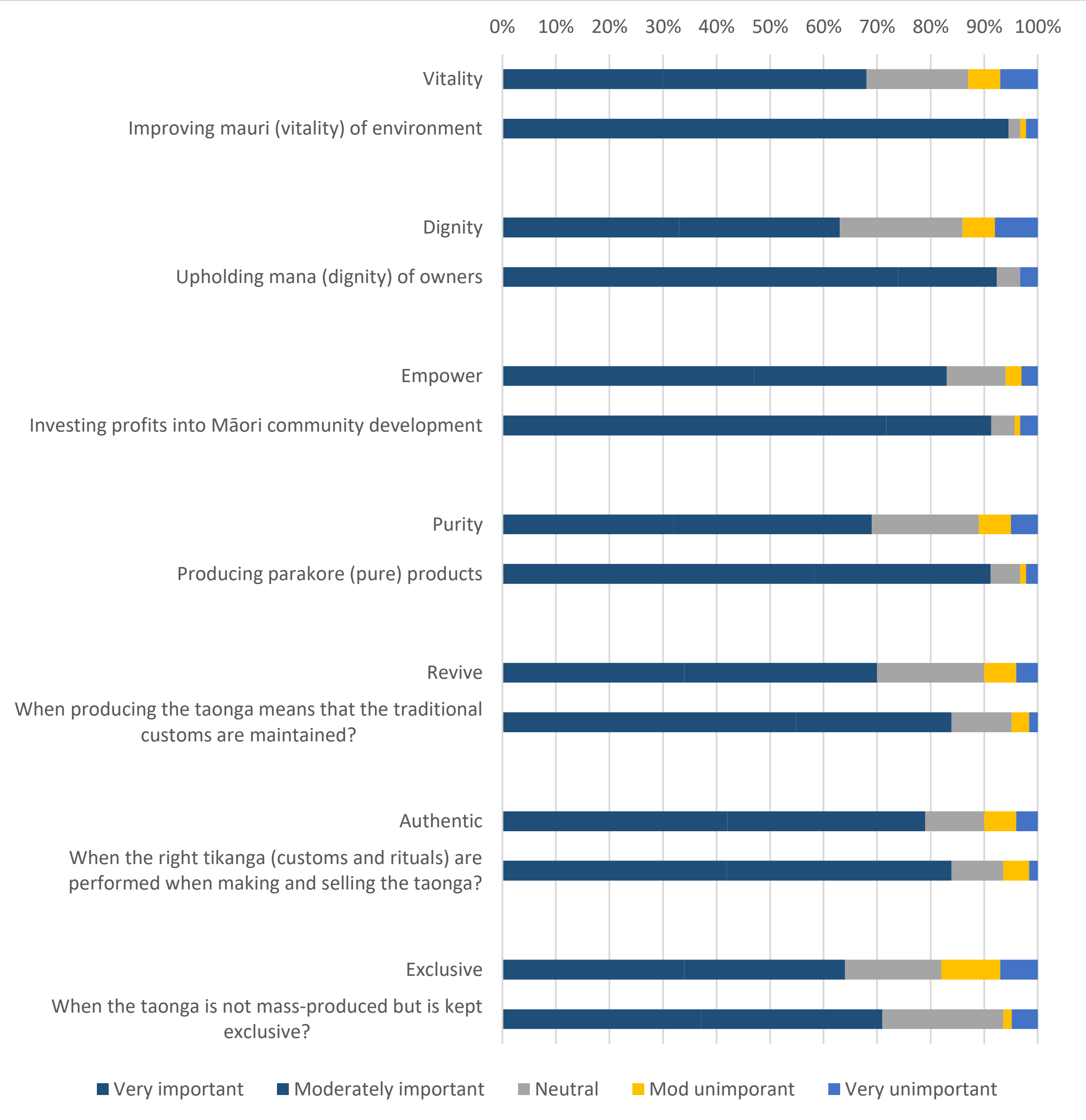


Interestingly, the importance of these attributes can be compared to the importance given to the attributes rated by the respondents to the survey in New York. Although the questions asked of the New York survey respondents were different to those asked of the Māori respondents they covered the same themes, and the questions were designed to determine the importance of the same attributes.

The attribute of environmental vitality rated by the New Yorkers corresponded to the attribute of environmental mauri asked of the Māori respondents. Likewise, the attribute of dignity corresponded with the attribute of mana, while the attribute of empowerment aligned with the attribute of community development. Similarly, the attribute of purity resembled parakore, while the attribute of revival matched the attribute of reviving traditional customs. Finally, the attribute of authenticity for New York consumers correlated with the Māori attributes of producing products according to traditional customs and traditions.

In Figure 5.7 below the comparison between attributes considered either very important or important by Māori and New Yorkers is compared. It shows that across-the-board Māori considered the attributes of taonga much more important than New Yorkers. In particular, Māori consider mana and mauri to be significantly more important. However, both cohorts considered empowerment to be very important. Māori also considered purity to be more important, however, both Māori and New Yorkers ranked revival, authenticity, and exclusivity roughly the same. The takeaway from this analysis is that the values of these cultural groupings differ, albeit that there is general agreement that these product attributes are important. However, Māori place greater emphasis on mana and mauri, while New Yorkers place relatively greater emphasis on empowerment, maintaining cultural traditions, and authenticity. It suggests that TFL should place emphasis, in its brand story, on the values that it shares with its markets.

Figure 5.7: Comparison of Product Credence Attributes Māori and New Yorkers Value



5.5 Willingness to Pay

Following the pilot surveys across London, San Francisco and New York, a more detailed survey of New York perfume consumers was undertaken to examine consumer Willingness-to-Pay (WTP) for the indigenous cultural attributes of taramea. The detailed results of this survey are contained in the report Estimating Willingness-to-pay for Indigenous Cultural Attributes of Taramea Perfume by New York Perfume Consumers completed by the Agriculture and Economics Research Unit (AERU) at Lincoln University. In the following analysis the survey results provided are drawn directly from this report, or have been condensed, analysed and synthesized, to focus attention on the most pertinent findings. However, as noted previously, the precise market analysis is commercially sensitive and what follows has been specifically redacted or obscured, particularly the specific monetary figures

A non-market valuation methodology was used referred to as Discrete Choice Experiments (DCE) to determine consumer WTP. The DCE method simulates market observations by creating a hypothetical market scenario within a survey that enables people to indicate their preferences for changes in perfume attributes and the associated costs to them. In this way, a DCE produces information on quantities and prices similar to what is found in observed markets which can then be analysed to measure the influence of changes in perfume attributes on consumer choices.

DCE's are a survey-based method in which respondents are presented with a series of choice tasks. For each choice task, respondents choose between at least two broad options. In this study, the options represent alternative perfumes with each described by indigenous cultural attributes and price. In each choice task, the combinations of attributes are systematically varied to denote different perfume offerings and respondents are asked to choose the option with the combination of attributes that they prefer. Statistical information derived from these choice tasks is econometrically modelled to quantify the relative importance of each perfume attribute. By including one key monetary attribute in choice tasks, the monetary value of other non-monetary attributes can be calculated. Economists express this as willingness-to-pay (WTP), e.g. how much I am willing-to-pay to have an exclusive perfume.

As outlined previously in the report, there were seven cultural attributes, however within the DCE the number of attributes was reduced to five. The reason for this was that testing the WTP across seven attributes using a DCE approach made the survey too long and unwieldly to generate robust results. Instead, the cultural attribute of empowerment, tino rangatiratanga, was combined with the attribute of revive, whakatipu, given that it was considered that empowerment included cultural revival. Furthermore, the cultural attribute of mana, or dignity, was combined with taonga, or exclusivity, given that a taonga may also considered to have mana. Consequently, the following perfume attributes were tested with perfume consumers in New York outlined in Table 5.2.

The results from the WTP survey is outlined in Table 5.3. It shows that consumers in New York are willing to pay significant premiums for taramea cultural attributes. Regarding authenticity it shows that perfume consumers were willing to pay between 22% and 38% of their average annual expenditure on a perfume, per annum, for this attribute - with a mean of 31%. In terms of purity, consumer WTP ranged between 20% and 34% with a mean of 27%, while for exclusivity the WTP ranged between 15% and 27% with a mean of 22%. The WTP for the empower attribute ranged between 10% and 24% with a mean of 17%, while the WTP for vitality ranged from 9% to 19%, with a mean of 15%.

Table 5.2: Attribute Descriptions

Perfume Attributes	Description
Purity	The ingredients of the fragrance come from the **pristine mountains in New Zealand**.
Vitality	The fragrance is understood by Māori to **confer vitality** on the wearer.
Empowering	This fragrance is made using **restored cultural knowledge** and processes and **supports** the social and economic development of **the tribe that makes it**.
Authenticity	The origins and story surrounding this fragrance will be **verified** to the consumer
Exclusivity	This fragrance will be made in **small batches**, assuring its exclusiveness, and **conferring status and dignity** to the wearer.

Table 5.3: Willingness to Pay (WTP) as a Percentage Premium

Perfume Attributes	Description	WTP
Authenticity	The origins and story surrounding this fragrance will be verified to the consumer	31*** (22, 38)
Purity	The ingredients of the fragrance come from the pristine mountains in New Zealand.	27*** (20, 34)
Exclusiveness	This fragrance will be made in small batches, assuring its exclusiveness, and conferring status and dignity to the wearer.	22*** (15, 27)
Empower	This fragrance is made using restored cultural knowledge and processes and supports the social and economic development of the tribe that makes it.	17*** (10, 24)
Vitality	The fragrance is understood by Māori to confer vitality on the wearer.	15*** (9, 19)
Liquid	The perfume is a liquid	29*** (20, 40)
Solid	The perfume is a solid	-10*** (-18, -1)

Average marginal willingness-to-pay per perfume product in USA dollars in 2022 year.

Lower and Upper bounds of the 95% Confidence Interval in brackets.

*** denotes statistical significance at the 1% level indicating that a willingness-to-pay estimate is significantly different from zero.

There was a total WTP of 71% above the average price paid for a perfume item, per annum for the average consumer, for the credence attributes. The results demonstrate that taramea cultural credence attributes attract a significant premium over average expenditure. In the most valuable expenditure cohort this amounts to a 30% premium. The details of this millennial-aged cohort are partially redacted though they can be described as having both expected and unexpected demographic qualities, with the information gleaned providing TFL with a significant insight into the specific demographic to target. The cohort makes up 14% of the total survey respondents. This finding corresponds with the international market analysis undertaken in section two, which highlighted the interest of millennials in artisanal authentic products with strong social and environmental justice attributes.

Chapter 6
Conclusion

Historically taramea was a taonga that was linked to prestige and status, while also being a valued commodity traded and gifted across Ngāi Tahu trade routes. This taonga status of taramea remains with a new commercial initiative being instigated to revive taramea production and trade in a way that respects the status of taramea, while creating an avenue for cultural revival and economic development aimed at Puketeraki Rūnanga and associated hapū. Within this broad initiative the long-term sustainable use of the taramea resource is emphasized to ensure that the mauri of the environment is not undermined through its production, and that the mana of taramea is not reduced through its overexploitation.

Through this business and community development approach, the taramea fragrance product carries with it a range of unique cultural credence attributes that may be considered important to Puketeraki Rūnanga. These credence attributes include: Parakore (Purity); Mauri (Vitality); Mana (Prestige and Dignity); Whakatipu (Cultural and Economic Revival); Tino Rangatiratanga (Empowerment); and Hāponotanga (Authenticity). These attributes are also considered important by select groups of international fragrance consumers. Based on an analysis of international market trends it was concluded that there is significant demand growth for artisanal fragrances with a unique and authentic brand story that captures these attributes, particularly amongst millennials. These markets are in large progressive metropolitan areas within Western countries.

From an international market pilot survey one market stood-out – New York. On average 74% of fragrance consumers within this market considered these attributes to be either important or very important. A follow-up Willingness to Pay (WTP) survey determined that these consumers were willing to pay on average a 71% premium to purchase a fragrance with these attributes. In the highest expenditure cohort, this amounted to a premium of 30% over their average expenditure.

In addition, it was concluded that a large proportion (81%) of the Ngāi Tahu and Māori collective owners of taonga, like taramea, support the export of these products to markets. However, 86% of these respondents considered that the special and valued status of taonga products should be reflected in the way they are produced, marketed, and sold. Over 90% of survey respondents considered that giving authentic expression to the credence attributes across the value-chain would ensure that the status of taonga would be maintained.

This report provides Puketeraki with a range of information that can inform the next steps they take, with both general and targeted market analysis that outlines the various options and the potential opportunities they pose. While there is still a lot of range within this analysis for different strategies, generally speaking it appears that to secure a premium for their product the rūnanga would be best to target a metropolitan market like New York, possibly in partnership with a local perfumer or associated company, emphasising authenticity and other cultural attributes in a way that is resonant with both consumers and Ngāi Tahu, selling a product that is niche and artisanal, with a strong story, and sustainable and transparent production.

Regarding cultural attributes, the fact that authenticity was the most popular with New York consumers is considered to provide a highly flexible platform upon which a brand can be constructed as of all the different attributes it can be considered the broadest, in a way encapsulating the other attributes, and it is seen as providing a framework on which other attributes can be added. In other words, it is recommended that Puketeraki adopts a strategy with authenticity at its core, with other salient cultural attributes added to provide greater nuance and appeal.

References

AFP (2012). Where the world's perfumes come to rest. *Dawn*. Retrieved from: https://www.dawn.com/news/736847/where-the-worlds-perfumes-come-to-rest.

Ali, F. (2019). The UK's finest fragrance houses reveal why the artisanal approach rules. *The Tempus*. Retrieved from: https://tempusmagazine.co.uk/news/the-uks-finest-fragrance-houses-reveal-why-the-artisanal-approach-rules.

Alpha Aromatics (2021). Why perfume bottle design is as important as scent design. Retrieved from: https://www.alphaaromatics.com/blog/perfume-bottle-design/.

Anderson, A. J. (1980). Towards an explanation of protohistoric social organisation and settlement patterns amongst the southern Ngāi Tahu. *New Zealand Journal of Archaeology*, 2, 3-23.

Andrews, B. (2021). Inside the fragrance industry's shift in sustainability. *ForwardLab*. Retrieved from: https://www.theforwardlab.com/2021/03/19/inside-the-fragrance-industrys-shift-in-sustainability.

Armstrong, K. (2017). Americas – Brazil: Fragrance Market Report 2017. *Cosmetics Business*. Retrieved from https://cosmeticsbusiness.com/news/article_page/Americas_Brazil_Fragrance_Market_Report_2017/129109.

Banner, S. (1999). Two properties, one land: Law and space in nineteenth-century New Zealand. *Law & Social Inquiry*, 24(4), 807-852.

Barr, T. L. and Reid, J. (2014). Centralized decentralization for tribal business development. *Journal of Enterprising Communities: People and Places in the Global Economy*, 8(3), 217-232.

Barr, T. L., Reid, J., Catska, P., Varona, G. and Rout, M. (2018). Development of indigenous enterprise in a contemporary business environment – The Ngāi Tahu Ahikā approach. *Journal of Enterprising Communities: People and Places in the Global Economy*, 12(4), 454-471.

Beattie H. (1920). Nature lore of the southern Māori. *Transactions of the New Zealand Institute*, 52, 53–77.

Best, E. (1977). *Forest Lore of the Māori: With methods of snaring, trapping, and preserving birds and rats, uses of berries, roots, fern-root, and forest products, with mythological notes on origins, karakia used, etc*. Wellington: Te Papa Press.

Bolongaro, K. (2019). How millennials are changing the perfume business. BBC. Retrieved from: https://www.bbc.com/news/business-50585558.

Briot, E. (2011). From industry to luxury: French perfume in the nineteenth century. *Business History Review*, 85(2), 273-294.

Carey, L., Stewart, A. and Walkinshaw, S. (2016). Luxury perfume brands: Consumer brand relationship and the mature consumer. In Global Fashion Conference 2016: 5th International Conference on Global Fashion. Stockholm University Press.

Carrement Belle (2020). The origin of patchouli, an iconic ingredient. Retrieved from: https://www.carrementbelle.com/blog/en/2020/04/29/origin-patchouli/.

Carrement Belle (2021). Edition and Re-edition: What is a flanker? *Curiosities*. Retrieved from: https://www.carrementbelle.com/blog/en/2021/01/06/flanker-perfume/.

Chambers, R. and Chambers, W. (1897). *Chambers's Journal*. Ann Arbour: University of Michigan.

Collier-Robinson, L., Rayne, A., Rupene, M., Thoms, C. and Steeves, T. (2019). Embedding indigenous principles in genomic research of culturally significant species: A conservation genomics case study. *New Zealand Journal of Ecology*, 43(3), No. 3389.

Cotton, S. (2014). The changing world of perfume and why some chemicals are being taken out. *The Conversation*, 27 November. Retrieved from: https://theconversation.com/the-changing-world-of-perfume-and-why-some-chemicals-are-being-taken-out-34502.

Culliney, K. (2020). The French touch? France's top 10 best-selling perfumes reflect love of 'classic' luxury. *Cosmetics Design*. Retrieved from: https://www.cosmeticsdesign-europe.com/Article/2020/01/20/Top-10-best-selling-fragrances-in-France-by-Suburbia.

Daley, J. (2019). Cleopatra may have once smelled like this recreated perfume. *The Smithsonian*. Retrieved from: https://www.smithsonianmag.com/smart-news/may-be-what-cleopatra-smelled-180972854/.

Dobson-Waitere, A., MacIntosh, R., Ellison, M. F., Smallfield, B. M. and van Klink, J. W. (2021). Taramea, a treasured Māori perfume of Ngāi Tahu from Aciphylla species of Aotearoa New Zealand: a review of Mātauranga Māori and scientific research. *Journal of the Royal Society of New Zealand*, 52(1): 1-17.

Fallon, B. B. (2021). This Is the biggest trend in fragrance right now. *New Beauty*. Retrieved from: https://www.newbeauty.com/unisex-fragrance-trend/.

Ferreira, D. (2020). The fragrance market as Brazil sees it. Retrieved from: https://www.happi.com/issues/2020-01-01/view_latin-america-news/the-fragrance-market-as-brazil-sees-it/.

Fetto, F. (2020). Smell like you: Why gender-free is the future of fragrance. *The Guardian*. Retrieved from: https://www.theguardian.com/fashion/2020/feb/19/smell-like-you-why-gender-free-is-the-future-of-fragrance.

Friedman, V. (2019). Dior Finally Says No to Sauvage. New York Times, 13 September. Retrieved from: https://www.nytimes.com/2019/09/13/style/dior-sauvage-cultural-appropriation.html.

Galloway, F. B., Wynberg, R. P. and Nott, K. (2016). Commercialising a perfume plant, Commiphora wildii: Livelihood implications for indigenous Himba in north-west Namibia. *International Forestry Review*, 18(4): 429-443.

Idacavage, S. (2018). Fashion history lesson: The truth behind Chanel No. 5. *Fashionista*. Retreived from: https://fashionista.com/2016/11/chanel-perfume-no-5-history.

Imbler, S. (2019). Researchers concocted an ancient Egyptian perfume perhaps worn by Cleopatra. *Atlas Obscura*. Retrieved from: https://www.atlasobscura.com/articles/cleopatras-ancient-perfume-recreated.

Jones, G. (2010). *Beauty Imagined: A history of the global beauty industry*. Oxford: Oxford University Press.

Kumar, S. (2005). Exploratory analysis of global cosmetic industry: major players, technology and market trends. *Technovation*, 25(11), 1263-1272.

Lieber, C. (2018). Forget about Chanel No. 5. IBM is now making perfume using AI. *Vox*. Retrieved from: https://www.vox.com/the-goods/2018/10/24/18019918/ibm-artificial-intelligence-perfume-symrise-philyra.

Maguire, L. (2021). Post-pandemic playbook: The luxury fragrance rebound. *Vogue Business*. Retrieved from: https://www.voguebusiness.com/beauty/post-pandemic-playbook-the-luxury-fragrance-rebound.

Metge, J. (2002). Returning the gift—Utu in intergroup relations: In memory of Sir Raymond Firth. *The Journal of the Polynesian Society*, 111(4), 311-338.

Moeran, B. (2009). Fragrance and Perfume in West Europe. Creative Encounters Working Paper No. 23. Copenhagen Business School. Retrieved from: https://research-api.cbs.dk/ws/portalfiles/portal/58999482/Creative_Encounters_Working_Papers_23.pdf.

Ngata, W., Ngata-Gibson, H. and Salmond, A. (2012). Te Ataakura: Digital taonga and cultural innovation. *Journal of Material Culture*, 17(3), 229-244.

Ngāi Tahu Claims Settlement Act 1998. Retrieved from: https://www.legislation.govt.nz/act/public/1998/0097/latest/DLM430161.html?search=sw_096be8ed81a807fb_taonga_25_se&p=1&sr=8.

Ngāi Tahu Fund (2012). *Ngāi Tahu Cultural Summit 2012 Report*. Retrieved from: https://ngaitahu.iwi.nz/wp-content/uploads/2013/06/Ngai-Tahu-Cultural-Summit-2012.pdf.

Ngāi Tahu Research Centre (2014). Fragrance industry profile and market potential for taramea. Retrieved from: https://ngaitahu.iwi.nz/wp-content/uploads/2018/04/Fragrance-Market-Information-2014.pdf.

Orchiston, W. D. (1972). Māori neck and ear ornaments of the 1770s: A study in protohistoric ethno-archaeology. *Journal of the Royal Society of New Zealand*, 2(1), 91-107.

Osbourne, L. (2014). In the mood for oud? *Town and Country*. Retrieved from: https://www.townandcountrymag.com/style/beauty-products/a1935/oud-perfume/.

Parson, S. (2017). Consumers fall out of love with celebrity fragrances as UK sales drop by 22%. *Cosmetic Business*. Retrieved from: https://www.cosmeticsbusiness.com/news/article_page/Consumers_fall_out_of_love_with_celebrity_fragrances_as_UK_sales_drop_by_22/125072.

Pierce, J. (2019). Why Dior's appropriation of Native identity to sell perfume miserably backfired. *Hyperallergic*. Retrieved from: https://hyperallergic.com/516186/why-diors-appropriation-of-native-identity-to-sell-perfume-miserably-backfired/.

Pitman, S. (2018). How personalisation continues to reinvent fragrance. *Cosmetics Design*. Retrieved from: https://www.cosmeticsdesign.com/Article/2018/10/17/How-personalisation-continues-to-reinvent-fragrance.

PwC (2019). *The Value of Fragrance: A socio-economic contribution study for the global fragrance industry*. Report prepared for The International Fragrance Association. Retreived from: https://ifrafragrance.org/docs/default-source/policy-documents/pwc-value-of-fragrance-report-2019.pdf?sfvrsn=b3d049c8_0.

Redding, M. (2015). Fancy looks for fragrances. *Beauty Packaging*. Retrieved from: https://www.beautypackaging.com/issues/2015-09-01/view_features/fancy-looks-for-fragrances/.

Reilly, N. (2019). Indie fragrances and niche perfumes are a growing billion-dollar industry. *Financial Revue*. Retrieved from: https://www.afr.com/life-and-luxury/indie-fragrances-and-niche-perfumes-are-a-growing-billiondollar-industry-20190215-h1bbnb.

Rout, M., and Reid, J. (2019). *Tribal Economies – Ngāi Tahu: An examination of the historic and current tītī and pounamu institutional frameworks*. University of Canterbury, Christchurch: Ngāi Tahu Research Centre.

Rout, M., Reid, J., Bodwitch, H., Gillies, A., Lythberg, B., Hikuroa, D., Makey, L., Awatere, S., Mika, J., Wiremu, F., Rakena, M. and Davies, K. (2018). *Māori Marine Economy: A review of literature concerning the historical and contemporary structure of the Māori marine economy*. Report for Sustainable Seas, Whai Rawa, Whai Mana, Whai Oranga. Wellington: Sustainable Seas.

Schwarcz, J. (2017). The story of perfume. McGill University Office for Science and Society. Retrieved from: https://www.mcgill.ca/oss/article/history/story-perfume.

Shortland, E. (1851). *The Southern Districts of New Zealand with Passing Notices of the Customs of the Aborigines*. London: Long, Brown, Green and Longmans.

Singh, M. (2019). Dior perfume ad featuring Johnny Depp criticized over Native American tropes. *The Guardian*, 31 August. Retrieved from: https://www.theguardian.com/fashion/2019/aug/30/diors-fragrance-ad-draws-criticism-for-featuring-native-american-tropes.

Sinks, T. (2017). Say what you want about them, but celebrity fragrances are so important to the perfume world. *Allure*, 3 October. Retrieved from: https://www.allure.com/story/why-celebrity-fragrances-are-just-as-good-as-luxury-perfumes?.

Smith, E. (2020). Would you like to smell like a 19th-century queen? *The Cut*. Retrieved from: https://www.thecut.com/2020/07/bermuda-shipwreck-perfume-mary-celestia.html.

Smith, J., Hutchings, J., Taura, Y. and Whaanga-Schollum, D. (2019). The mutually binding nature of kaitiakitanga. Storying kaitiakitanga: A kaupapa Māori land and water food story. Summary report prepared for the Our Land and Water National Science Challenge. Retrieved from: http://jessicahutchings.org.nz/wp-content/uploads/2019/06/E4-John-Reid-SS-Final-6.pdf.

Spinner, J. (2010). What Is Frankincense? And where does it come from? *Slate*, 14 December. Retrieved from: https://slate.com/human-interest/2010/12/what-is-frankincense-and-where-does-it-come-from.html.

Statista (2021). Fragrances – Worldwide. Retrieved from: https://www.statista.com/outlook/cmo/beauty-personal-care/fragrances/worldwide.

Sullivan, J. (2014). Perfume promiscuity: Why signature scents are a thing of the past. *Marie Claire*. Retrieved from: https://www.marieclaire.com/beauty/news/a12948/fragrance-wardrobe/.

Sullivan, N. (2021). How essential oils and fragrance oils are made. Whole Home Scenting. Retrieved from: https://wholehomescenting.com/how-essential-oils-and-fragrance-oils-are-made/.

Tapsell, P. (1997). The flight of Pareraututu: An investigation of taonga from a tribal perspective. *The Journal of the Polynesian Society*, 106(4), 323-374.

Tau, T. M. (2011). Scoping Paper on Tribal Economies. Retrieved from: https://researchprofile.canterbury.ac.nz/UCResearchProfileResources/Researcher/960153/Tribal%20Economies%203.pdf.

Te Rūnanga o Ngāi Tahu (2013). Ngāi Tahu 2025. Retreived from: https://ngaitahu.iwi.nz/wp-content/uploads/2013/06/NgaiTahu_2025.pdf.

Tipa, R. (2007). Taramea - fierce & fragrant. *Te Karaka*, 36:52-53. Available at https://ngaitahu.iwi.nz/wp-content/uploads/2013/09/TeKaraka36.pdf.

Tipa, R. (2020). Reviving an ancient scent. *Te Karaka*, 87:42-45. Available at https://ngaitahu.iwi.nz/our_stories/reviving-an-ancient-scent-tk87/.

Torlesse, C. O. (1958). *The Torlesse Papers: Journals and Letters, 1848-1851*. Christchurch: Pegasus Press.

Utroske, D. (2014). Will the US lead the trend in custom fragrance? *Cosmetics Design*. Retrieved from: https://www.cosmeticsdesign.com/Article/2014/11/10/Will-the-US-lead-the-trend-in-custom-fragrance.

Waitangi Tribunal (1991). *The Ngāi Tahu Report*. Wellington: Ministry of Justice.

Wallis, J. (2021). Why does everyone keep talking about solid perfumes? *Fashion Journal*. Retrieved from: https://fashionjournal.com.au/beauty/whats-the-deal-with-solid-perfumes/.

Wanjau, L. (2020). Omumbiri — From indigenous perfume to designer fragrance. Retreived from: https://byrslf.co/omumbiri-from-indigenous-perfume-to-designer-fragrance-1a80da4494cd.

Weil, J. (2021). Fragrances get functional. *BeautyInc*. Retrieved from: https://wwd.com/beauty-industry-news/beauty-features/fragrance-gets-functional-1234821560/.

Weinswig, D. (2017). Reviewing trends in the global fragrance market. Retrieved from: https://deborahweinswig.com/wp-content/uploads/2017/08/Reviewing-Trends-in-the-Global-Fragrance-Market-August-4-2017.pdf.

Williams, G. (2021). The smell of success: How niche perfumes perform in China. *Jing Daily*. Retrieved from: https://jingdaily.com/niche-perfume-brands-china-juliette-has-a-gun/.

Wong, S. (2016). Perfume buyers prefer niche artisanal scents over celebrity brands. *Toronto Star*. Retrieved from: https://www.thestar.com/business/2016/10/04/perfume-buyers-prefer-niche-artisanal-scents-over-celebrity-brands.html.

Zeldovich, L. (2020). How a long-lost perfume got a second liife after 150 years underwater. *Atlas Obscura*. Retrieved from: https://www.atlasobscura.com/articles/shipwreck-perfume-bermuda-mary-celestia.