Exploitation versus Exploration in Island Economies: A Brand Diagnostic Perspective

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ABSTRACT

It is important for islands to discover their genuine competencies and capabilities in order to find their place in an evolving global economy. Economic self-discovery, however, is difficult because exploitative mechanisms (investing in old ideas) tend to naturally dominate economic behaviour when compared to exploration mechanisms (investing in new ideas). In this paper, a brand diagnostic tool is used to distinguish islands with unique brand images from islands with relatively common brand images. Through a simulation of the mutual learning processes within the social networks of these islands, this paper shows that economic self-discovery is facilitated in islands with strong and unique branding strategy, as a strong holistic brand frame exploration activities by reducing ambiguity and confusion. Islands with common brand images fail to strengthen their brands because of the predominance of exploitative mechanisms in their economies and as a result enter a vicious circle where increasing brand dilution and confusion blocks the exploration and discovery of new ideas.

KEYWORDS
Islands, Branding, exploration, exploitation, learning.

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Introduction

Island economies have to find sustainable adaptive solutions to fit in the modern global economy. Evidence that island economies adapt is provided by Bertram (2004), who shows that the performance of small island economies tend to convergence toward the economic performance of their metropolitan patrons. Adaptation, however, is an ongoing process: the adoption of an evolutionary solution that provides profits today may be a structural handicap tomorrow! For example, Hampton and Christensen (2002) forecast the erosion of the difference between offshore and onshore finance sectors as the OECD and other international organisations are increasingly imposing restrictions on the use of tax havens. This raises serious concerns for islands that derive most of their wealth from their tax haven status rather than from a genuine island-based source of intellectual capital. Similarly, Croes' (2006) analysis of the Caribbean islands is that these islands have in the past performed very well as tourist destinations,

but are at risk of losing their market share today if they do not upgrade the business models that they are using.

This process of adaptation implies a need to learn, at the island level, which economic activities to develop, invest in, utilise, or terminate. As in organisational learning, economic actors on islands have to balance activities dealing with the exploration of new ideas with the exploitation of known processes and business models. March (1991) describes exploration as being associated with activities such as "search, variation, risk taking, experimentation, play, flexibility, discovery, and innovation". Exploitation is associated with activities such as "refinement, choice, production, efficiency, selection, implementation, execution". March (1991) demonstrates that because adaptive processes refine exploitation more rapidly than innovation, they can help organisations to become very effective in the short-run but do so at the cost of compromising or "self-destructing" long run economic prospects.

A central question in this paper is how do islands learn about what they are good at and which sectors should they invest in? Although the generalisation of organisational learning principles and concepts to the macroeconomic case of islands may appear to be quite a theoretical leap, it is worth noting that many modern economic development models are based on understanding and modelling learning (Evans and Honkapohja, 2001). For example, Hausmann and Rodrick (2003) study the process of economic self-discovery whereby a country learns which economic activity it is good at.

Due to the tight-knit nature of islands and to the small size of their networks of economic actors, "island learning" during economic adaptation will resemble learning in large organisations. Thus, island economies are at risk of suffering from focusing on exploitation at the exclusion of exploration, a scenario which eventually lead systems to sub-optimal stable equilibria (March, 1991).

When trying to avoid evolutionary "dead-ends", only exploration activities can help an island to move away from known configurations and develop viable economic configurations for the future. Baladacchino (2005a, 2005b) highlights in his research about best practices and successful examples of island entrepreneurship the importance of strong island brands.

The objective of this paper is to study the mutual dependency between branding and learning at an island level. It is thanks to a strong brand that customers, investors, and entrepreneurs make economic decisions in favour of an island (*learning from the brand*). Conversely, it is through the cumulative process of investing in activities that "one is good at" that island brands can be created and built upon (*learning by the brand*). A related objective is to question the effectiveness of the modern trend of many islands that tend to use very exhaustive, but common and diluted, branding strategies. In particular, this paper seeks to compare the impact on island economic self-discovery of unique versus common brands.

The paper is organised as follows: the first section reviews the literature on brand and brand images and suggests a conceptual framework linking branding strategy and propensity for exploration/exploitation. This framework is illustrated in the third section with a sample of North European islands, where the use of common brands is shown to be widespread. Two "archetypes" of island economies are extracted from this sample in the fourth section to describe the methodology used to build and run a simulation of mutual learning about brand image. The fifth section presents the simulation results. Key findings are presented in the conclusion.

Literature Review: Brand Image and Brand Diagnostic

Most of the extant research on destination branding usually focuses on the brand image of a destination for tourists markets (Pike, 2002), and evidence exists to confirm the importance of a

destination brand image in terms of explaining travel and holiday purchase decisions (Baloglu and McCleary, 1999; Baloglu and Brindberg, 1997). Park and Petric (2006) highlight that destinations also seek to build competitive brand images for the promotion of products and events in addition to the destination itself.

Prebensen (2007) defines the principle of destination branding as "selecting a consistent mix of brand elements to identify and distinguish a destination through positive image building", and explains the difficulties experienced by many destinations to build such brand images with the following issues:

- A brand needs to identify and take into account customer knowledge when selecting brand elements;
- the combination of elements into a consistent bundle can be problematic;
- some ambiguous elements can be selected and can result in confusion for customers; and
- Existing negative brand perceptions (e.g. remote, cold, boring) have to be overcome.

It is only recently that islands have concerned themselves with branding. Gunn (1972, quoted in Prebensen, 2007) proposes a staged theory of destination branding as the succession of an (1) organic phase, (2) induced image, and (3) modified-induced image. In the organic stage, the brand is an emergent phenomena resulting from consumption experiences. In the induced stage, destination officials invest in brochures and advertising and attempt to "create" the brand. Finally, in the modified-induced stage the brand image is affected both by marketers and by the experience and feedback of consumers. Popular Mediterranean islands (e.g. Ibiza) have gone through each of these stages from the 1960s to today: they first gained popularity as warm, quiet, scenic, and authentic islands (organic stage), then went through a phase of actively marketing themselves (1970-1980s), and are now strongly

associated with crowds and nightlife (positive or negative brand elements depending on the perspective of the consumer). In this paper, we are particularly concerned with the modified-induced stage as it is then that exploration and exploitation mechanisms are at work, and that island learning is taking place.

This idea is illustrated in the conceptual framework of figure 1, where a variety of branding effects (Henderson *et al*., 1998) are mapped onto two dichotomies of destination branding used by Prebensen (2007).

(((Insert figure 1 about here)))

When creating and managing a brand image, analysts can define the brand simply as a list of "branded features", i.e. elements that are put forward in advertising and promotional messages. On the other hand, analysts may prefer a system approach where efforts are made to create and identify a self-consistent whole view of a brand. In the first case, there is a risk of including in the brand imagery dimensions which are not necessarily consistent with one another and thus to lead to brand cannibalisation, i.e. to conflicts and competition within the brand portfolio. For example, islands that position themselves as motor sports and rallying locations send a controversial message to tourists seeking culture, heritage, scenic, and authentic destinations. Another downside of "attribute analysis" from an exploitation perspective is that its underlying goal is to attract as many customers (whether tourists, service consumers, or product buyers) by including all possible elements that islands are normally associated with. Although the rationale of this approach is to try to maximise a customer base, it may result in diluting the brand by reducing the mystique and strength of the brand imagery associated with the island. Figure 1 shows that the holistic approach, by exploring and discovering associations with the brand as a system, avoids these risks and instead leads to the discovery of combination of brand attributes which are truly complementary. For example, the Corsican and Sicilian wine brands reinforce the traditional, intense, yet relaxed South European islands lifestyle. Similarly,

the Orkney crab brand has a strong retail position in the United Kingdom thanks to reinforcing the natural, genuine, and wild character of the Orkney Islands. There is no risk of cannibalisation in these cases and instead opportunities for co-branding. Moreover, the holistic view will reveal possible conflicts or "odd" associations within a brand. The use of market segmentation, where a specific version of a brand is presented to a target market and another slightly altered version is presented to another segment, allows maintaining a large market base whilst avoiding brand dilution.

When exploration is used to discover what an island is good at, the result will be a unique, strong, and robust brand (maintaining parity of imagery power with competing brands). In the best case scenario, the brand may be associated by customers as the most representative brand in a sector (a "driver" brand). On the other hand, exploitation mechanisms, by focusing on imitation of the competition, result in common brands. Brand managers will spend time analysing the competing brands, discovering features of these, and trying to integrate these features in their own brands. This imitation process results in a situation where in the eyes of the consumers, there may be very little difference between the brands (brand confusion).

Brand Diagnostic on a Sample of North European Islands

In this section, the brand diagnostic framework based on associative networks proposed by Henderson, Iacobucci, and Calder (1998) is used to compare the different brand images presented in the web portals of a convenience sample of North European islands and archipelagos. The web portals used to assess the branding practices of these islands are listed in the appendix. The sample is composed of:

- Jersey is part of the Channel Islands and is situated off the coast of France. It is a British Crown dependency that does not belong to the United Kingdom. It does not belong to the

European Union either. The territory of Jersey includes a number of small islands off its coast.

- Guernsey is the second Channel Island and is also situated off the coast of France. It includes in its jurisdiction a number of small islands and islets.

- The Hebrides are part of the Scottish Isles. The Hebrides are a widespread and diverse archipelago situated off the West coast of Scotland. In this paper the terminology "Hebrides" is used to refer to the Outer Hebrides (also known as the Western Isles). The Outer Hebrides include the Isle of Lewis, the Isle of Harris, Taransay, North Uist, Benbecula, South Uist, Barra, and St Kilda. Although it may appear controversial to exclude from the term "Hebrides" the Inner Hebrides islands, which are situated closer to the West Scottish shore, "Hebrides" is actually the term used by the Outer Hebrides to market themselves. The Inner Hebrides do not market themselves as "Hebrides" but directly with their own names.

- The Isle of Skye illustrates the point made above. It is one of the Inner Hebrides islands, but it advertises itself independently. This may be explained by the fact that most of the Inner Hebrides islands have very strong brand names derived from their lucrative whisky industry.

- The Isle of Man is a British Crown dependency (and thus is neither part of the United Kingdom nor of the European Union). It is situated in the Irish Sea between England, Ireland, and Scotland.

- Iceland is an independent northern European country, formally known as the Republic of Iceland. It is composed of the Isle of Iceland and its surrounding islets between Northern Europe and Greenland.

- Orkney is an archipelago of islands which are part of the Scottish Isles. It belongs to the Northern Isles, which are located north of Scotland. Orkney has a strong brand name in the British retail sector, especially for crab meat.

- The Isles of Scilly are an archipelago at the very South West tip of England. Administratively, they are part of England. Although they use to be part of Cornwall, their status was changed and they now have their own council.

The first step of the brand diagnostic is to build an associative matrix X between the brands and their attributes (Henderson *et al*., 1998). In order to do so, it is necessary to collect branding data from each of the above islands. This could be done by interviewing tourism officials, interviewing islanders, interviewing tourists, consulting brochures, or consulting official web sites. There are actually two decisions embedded in the selection of a source of branding information: (1) the decision to review a brand specification or a perception of a brand, and (2) the decision about how much material/interviews are needed to actually know, or adequately assess, a brand.

As the goal of this paper is to study how economic actors interact with a marketing brand specification (i.e. the modified-induced stage of maturity), the first decision was to assess a brand code, i.e. a specification rather than the perception of a brand. Web sites were selected, by opposition to other means of assessing brand codes, for reasons of convenience and ease of access to the data. Not all islands have well-developed official web portals, though. Thus, a few islands which were originally considered for inclusion in the sample (Madeira, Corsica, and the Isle of Arran) were excluded as there was either no official web sites or because their web sites were too patchy and amateur to be compared with those of the rest of the sample.

The second decision (scope and breadth of data to be collected) is complicated by the fact that the selected web portals provide very extensive descriptions of islands, and thus it would be impractical to review the whole portals in the context of this research. Doing so would only result in the conclusion that all islands are identical in terms of their offerings. Instead the following methodology was used. Only the first pages with content were analysed. The list of attributes is simply the list of attributes which was discovered when analysing the content of these "anchor", brand-level pages. The associative matrix is shown in table 1. It is important to stress that table 1 does not show the actual characteristics of the islands as destinations, instead it only shows the image that it provides of itself in opening, anchor pages. Consider for example Jersey and Guernsey: the coding of "0" for both these islands on the golf dimension in table 1 does not mean that there is no golfing on these islands (they are in fact many golf courses in Jersey and Guernsey). The codes of "0" mean that neither Jersey nor Guernsey puts forward golfing as a prime brand element in their brand-level description of themselves.

The next step of the brand diagnostic (Henderson *et al.*, 1998) is to compute the raw sums of squares and cross product matrices, **XX'** to describe the brands and **X'X** to describe the brand elements. These matrices are shown in table 2 and table 3 respectively.

(((Insert table 1 about here)))

Table 2 (the brand matrix) can be interpreted as follows. The diagonal numbers (shown in greyed cells) represent the dimension of the brand. For example, the Hebrides web portal puts forward a relatively exhaustive description of its brand and uses 10 dimensions (the ten "1" in the Hebrides column in table 1). At the other end of the spectrum, Iceland provides a short brand image based on three dimensions only (glaciers and volcanoes, outdoor recreations, and wildlife).

(((Insert table 2 about here)))

The numbers off the diagonal indicate the degree of similarity between the brands. For example, the Hebrides and Guernsey only share 1 brand element, whereas the Hebrides and the Isle of Man share 5 brand elements.

Table 3 is interpreted similarly. The diagonal scores indicate the popularity of a brand element and the off-diagonal scores the frequency with which a brand element is associated with another brand element. For example, table 3 shows that culture and heritage is the most popular brand element for the sample of islands, and that it is commonly associated with the organisation of cultural events (e.g. music festivals) and with the branding of dining experiences.

(((Insert table 3 about here)))

In order to simplify the analysis, the decision was made to select as attributes only key characteristics (e.g. glaciers) or activities (e.g fishing) offered on an island. The brand descriptions that were consulted also include a number of specifications about the feel, or personality, of islands. For example, Skye is “breathtaking”, and Orkney is “calm”, “timeless”, and “irresistible”. Guernsey is “contemporary” and “thriving”, Jersey is “enriching”, and the Isle of Man is “intriguing”. Although the analysis in the rest of the paper could be applied with these attributes, they were ignored as it is more difficult, from a practical perspective, to invest in becoming “intriguing” than it is to invest in being known for flowers (e.g., Jersey). A similar analysis of island branding on the basis of feel or personality, though, is an interesting avenue for future research.

As there is a lot of data to analyse in tables 2 and 3, key associations between brands and brand elements are shown in figure 2 under the form of an associative network. Two brands are considered to

be associated (as shown by the existence of a link in figure 2) only if 60% of the characteristics of an island are possessed by another island[1].

(((Insert figure 2 about here)))

For the sake of readability, not all brand elements are shown in figure 2. The brand diagnostic from tables 2 and 3 and from figure 2 can be summarised as follows:

- A number of islands in the sample tend to use an attribute rather than a holistic view of branding and exhibit long lists (e.g., Hebrides) of sometimes inconsistent brand elements (e.g., Isle of Man, Jersey). Thus, brand confusion is a potential concern as what is on offer in one island is on offer in most other islands. For example, there is no clear pattern separating Scottish from Channel Islands in figure 2.

- There is some differentiation efforts with the inclusion of unique brand features, as for example the TT Race for the Isle of Man, glaciers for Iceland, and flowers for Jersey. However, brand dilution and brand cannibalisation are a concern as these unique brand elements tend to be dwarfed by the list of attributes presented in conjunction with them.

- Many islands (Skye, Orkney, and the Isles of Scilly) adopt a middle of the road approach but fail to provide any unique branding feature.

- Iceland and Guernsey tend to have the best branding strategies in terms of uniqueness. Iceland's brand presentation is centred on glaciers, scenery and wildlife and thus avoids any risk of confusion (glaciers as unique characteristic) and dilution (thanks to a short concise

[1] Drawing an associative network is complicated in this paper by the high connectivity of the associative networks between islands (compare with Henderson *et al*., 1998 networks). The 60% value was obtained by experimentation. A value lower than 60% results in all islands being connected to one another. A value higher than 60% tends to isolate some islands. As neither representation is particularly helpful to understand the branding structure of the islands, the 60% value was selected.

list). Impressive information about its culture and heritage, shopping potential can be found in the web portal, but after drilling down away from the top-level brand presentation. Similarly, Guernsey lists much less brand elements than its direct competitor Jersey and goes for a branding based on the typical North Europe island presentation (heritage, walks, dining and shopping) but compensates this common presentation by adding personality dimensions such as being thriving and contemporary.

Simulation: Mutual Learning about Brand Image

The brand diagnostic made in the previous section raises a question regarding the economic impact of the different branding strategies. One may argue that the attribute-based, high dimensional branding strategies used by the majority of the islands in the sample could result in increased economic activity. Following March (1991), this paper argues that the downside of this strategy is to encourage exploitation at the expense of exploration. In other words, the short-term priority with increasing economic activity by capturing all possible forms of island consumers will deprive the island from the opportunity to discover what it is good at, and to establish a unique, holistic brand name for a sustainable economic future.

In order to support this statement, a simulation is used to study the modified-induced stage of brand creation. The simulation methodology is adapted from March (1991).

In order to simplify the analysis, two archetypes of branding strategy are used instead of the sample of 8 islands used in the previous section. The first archetype, represented by the Isle of Man, is the case of a common brand based on a very exhaustive list of attributes, an approach associated with a predominance of exploitation mechanisms. The second archetype, represented by Iceland, is the case of a holistic and unique brand based on salient island attributes. Thirteen island branding elements are

selected from table 1. The simulation is used to study the evolution resulting from learning interactions at three distinct levels of brand representations:

1. The brand code which is collectively held. It represents the consensus view about the brand. Its initial specifications are those promoted by a marketing or official island body. Thereafter, it evolves as a function of island learning.

2. The reality of what is an island is really good at. This is an invariable specification and the goal of the learning exercise is to discover this reality.

3. The beliefs held by individuals about what the island is good at.

The brand code is represented by a 13-tuple where each elements is coded as -1 (not part of the brand) or +1 (element is part of the brand). Table 4 shows the brand code from the web portals in the case of Iceland and the Isle of Man.

(((Insert table 4 about here)))

In addition to the initial brand code, table 4 also shows the reality 13-tuple which is representing the real performance of the island on the 13 brand elements. The reality tuples, coded by the researcher, are an expression of the fact that islands, like any other economies, experience scarce resources, and will not necessarily be able to perform well on all brand dimensions. Take for example the shopping dimension. Iceland does not mention shopping in its brand definition, and thus the brand code is initially "-1". Further research, however, shows that Iceland has a well developed retail sector, including local crafts and even an island-based fashion industry. Thus, the reality score of "0" is assigned to indicate that economic performance in the retail sector is good. As it is unlikely that Iceland could compete with destination such as Milan or Paris (in which case a score of "+1" would be assigned), the

score of "0"indicates a fair performance level, but not a branding feature. In the case of the Isle of Man, which includes shopping in its brand definition (hence an initial brand code of "+1"), further research shows a very limited local craft industry and the fact that a shopping experience on the Isle of Man will not be different in any ways than a shopping experience in the United Kingdom. Given the lack of salient characteristics and the lack of competitive dimensions in the case of the Manx retail sector, a reality score of "-1" is assigned. Finally, although the Isle of Man does not mention outdoor recreation on its brand definition, the island offers plenty of opportunities for such pursuits, hence a reality code of "+1" despite the brand code of "-1".

The simulation is based on the beliefs (13-tuples) of 50 individuals[2]. To represent the specificity of mutual learning in an island context, we assume that:

- 25 of these individuals have been subjected to the code, and thus, their beliefs initially match the code. These individuals could for example be tourists who have consulted the web portal and form their expectations about the destination on the basis of the brand code. Alternatively, these 25 individuals could be 25 islanders who are familiar with the branding efforts of the island, and thus, are aligning their beliefs and their business behaviours on that brand image.

- 25 of these individuals are assumed to have neutral beliefs (coded as "0") about the brand. These could be for example 25 islanders who are unaware of the brand code and have no prior experience of what the island is good at. Also, they could be 25 entrepreneurs on the

[2] It is important to distinguish individual learning, and group learning, from organisational learning. This paper focuses on the latter, and thus, is concerned with modelling how collective beliefs are formed over large networks of individuals. One cannot compare the processes and dynamics of learning by a group of 4 individuals with that of learning by a group of 50 individuals. There is a certain size threshold in terms of the number of individuals after which matters of collective learning become a complex dynamical system. Generally speaking, organisational learning becomes more difficult and unstable as size increases. March (1991), however, shows that a network of 50 individuals is sufficient to capture the dynamical complexity of organisational learning, and that the qualitative results of his research are insensitive to this number. This holds true for the simulation done in this paper.

island exploring business opportunities, but without necessarily trying to tie these opportunities to the official brand code.

In an ideal world, the brand code used in marketing would match the reality of an island's ability to perform. Still in an ideal world, individual subjected to the marketing of the brand would accept the code and would start acting in order to reinforce performance in the way suggested by the brand code. This constitutes "*learning from the code*", i.e. the fact that individuals connected to an island will learn from the brand definition created by officials and marketers. If learning from the code is efficient, eventually all individuals in an island have aligned their beliefs on the brand code. In this ideal world scenario, brand code, reality, and individual beliefs are all identical.

Let's assume that there is one error in the brand code. Note that in the above "ideal world" scenario discussed above, this error cannot be discovered as learning from the code is not a mechanism whereby the code can be changed. This means that if there is an error in a brand code, individuals will keep investing according to the code, and will discover at their expense that the code was wrong. Thus, learning from the code, if too efficient, leads to the structural inertia associated with exploitative behaviour. Another consequence of learning from the code is that innovation is impossible: because individuals learn from the code, and not from each other, a new idea, differing from the code, will always be rejected at the collective level.

For all the reasons above, a second mechanism is needed to simulate island learning. "*Learning by the code*" is the set of mechanisms through which the code itself can be changed when needed. For example, a top official may realise that a mistake was made and will alter the code. Another example is that some successful entrepreneurs may discover new island strengths and decide to invest in them. As these entrepreneurs' success record may make them influential members of their communities, other

individuals will align their beliefs on theirs rather than on the official code, thereby eventually forcing the code to change.

The simulation is implemented as follows. The first stage of the simulation is learning from the code. At this stage, each individual with beliefs different than the code have the possibility of independently updating their beliefs to the code with a probability p1. A p1 value of 100% would mean that individuals always automatically align their beliefs to the official code. A lower value implies that learning from the code is not systematic, i.e. people sometimes prefer to maintain their beliefs rather than adopt the code. As learning from the code indicates the tendency to learn from existing ideas, p1 measures the predominance of exploitation in the economic behaviour of the population. A random number is generated by the simulation. Depending on this number and on the value of p1, each individual may update their beliefs. Note that updating beliefs from the code during an iteration of the simulation does not imply that learning from the code will take place in subsequent iterations for a given individual.

The second stage of the simulation is learning by the code. This stage corresponds to the "modified" branding stage where local experts have the possibility of influencing their peers, and thus, of changing the code. Economic self-discovery is an example of learning by the code. During iterations, the simulation algorithm identifies the set of individuals with the highest dimensional match between their beliefs and the performance reality. For each dimensions of the code, a probability p2 is used to model the possibility of the code changing to the average belief held by the set of experts. Thus, the quality of the updated code is a function of p2 and of the degree of consensus within the set of experts. As learning by the code is essential to discovery and innovation, the value of p2 is a measure of the predominance of exploration in the economic behaviour of a population.

This simulation process is iterated k times until the brand code matches the reality tuple or until k=2000 iterations are completed. Experiments with the simulation showed that convergence is either reached quickly or never.

Simulation Results

Table 5 displays the simulation results for both Iceland and the Isle of Man cases and illustrates how effective their mutual learning processes about their brand images is. The quality of organisational, or island learning, is measured as the number of dimensions on which the collective brand code matches the reality of the island's performance.

Each simulation is run 10 times under different assumptions about probabilities p1 and p2. For example, the first simulation with the Iceland specifications is done with a probability p1=20% (slow speed of learning from the code) and with a probability p2=80% (fast learning by the code). The result of this first simulation is that at the end of the simulation, the collective brand code matches reality on 12 out of 13 dimensions. Thus, in this first simulation, the mutual learning process is effective and results in an accurate economic diagnostic of what the island is good at.

Overall, table 5 is consistent with the findings of March (1991). In particular, it confirms that a slow learning from the code (exploitation of existing ideas) and fast learning by the code (exploration of new ideas) outperforms a fast learning from the code and a slow learning by the code in terms of the quality of knowledge resulting from the mutual learning process.

Table 5, however, expands March's (1991) methodology for assessing the effectiveness of mutual learning by allowing a comparison of this effectiveness based on the accuracy of the initial brand code. Indeed, it is important to note that the only factors that can be used to explain the difference between the Iceland and the Isle of Man mutual learning simulations is the accuracy of the induced brand code as

shown in table 4. This difference in initial accuracy can be summarised as follows. Iceland uses a concise branding strategy which is accurate in 5 dimensions (in terms of what the island brand includes or does not include). This leaves 8 dimensions where the brand code is ambiguous, and individuals have to learn what the real capabilities of the island are. The Isle of Man has an exhaustive description with 7 dimensions of brand elements that match genuine features, or non features, of the island. Although this leaves only 6 dimensions to learn about, it is important to note that the inaccuracies implied by the brand code are more severe in the case of the Isle of Man: for example, although shopping is mentioned as a brand element (code = +1), learning should result in the opposite code (-1). Similarly, although outdoor recreation are omitted from the initial code (-1), it should be updated to +1. In contrast, Iceland has less to learn as it should replace many cells left blank (coded as -1) with a code of zero, indicating the existence of capabilities, but not differentiating capabilities.

In the case of a unique, holistic brand name, a predominantly exploitative economy performs poorly with an average match score of 6.20. Because in an exploitative economy individuals comply with the code (p1=80%) and fail to explore alternatives (p2=20%), they never discover that economic activities outside of the unique brand (Iceland=glaciers) can be profitable (e.g. develop a shopping sector). On other hand, when exploration (p2= 80%) primes over exploitation (p1=20%) these brand complements are discovered and result in the best score across the board with an average match of 10.50 dimensions.

Although the Isle of Man simulation presents a similar pattern, the benefits of exploration are much attenuated. Even in the case where p1=20% and p2=80%, the match score only increases by 1 dimension compared with the other scenarios. This is indicative of the extent of brand confusion and brand dilution within the social network of the 50 individuals. What table 5 shows is that because of brand dilution and confusion, island learning is not very effective. Attempts to explore new ideas and

new opportunities fail to be accepted by the social group due to the high ambiguity about what the brand stands for and who knows about it.

(((Insert table 5 about here)))

Clearly, the difficulties with island learning depicted throughout table 5 will not stop companies from making profits and from entrepreneurs from having new ideas. However, table 5 shows that:

- In the first case (Iceland), new ideas are discovered and are recognised at the social network level. Thus, they will benefit from network effects (e.g., availability of funding, priority setting at government level, shared enthusiasm). These conclusions, however, only hold true if explorative activities are taking place.

- In the second case (Isle of Man), explorative activities are ineffective as the brand is already too diluted to leave room for new economic discoveries to emerge. Although the island may have a running economy, it cannot discover what it is really good at.

Conclusion

This paper shows that the transition from the induced branding stage to the modified-induced stage is delicate. The simulation of mutual learning about brand code shows that a perfect convergence between the brand code and economic capabilities is rare, and is in any case impossible without exploration.

The simulation results show (1) that there is a mutually reinforcing relationship between common brands and exploitative economies and (2) that there is a mutually reinforcing relationship between unique brands and explorative economies. Only in the later case are island economies capable of

discovering “what they are good at”, of investing in these activities, and of deriving sustainable benefits from strong branding, co-branding, and complements of the brands.

This paper has implications for islands in the process of creating or extending their brands. Although the recourse to common island (e.g. scenery, beach, cruises) and non-island brand elements (e.g. walks, culture, dining) is easy and may be successful in trying to capture a variety of customers in the short run, this may create a longer term association of the island brand with an ordinary, mundane product. The tendency of islands to imitate the portfolio of offerings of their competitors increases this perception of island brands as being common. This risk can be worsened by the possibility of developing negative brand perception when traditional brand features, copied from competitors, are exaggerated in the definition of the brand.

The alternative is to discover, through exploration and mutual learning, a unique, holistic, powerful driver brand that distinguishes the island from its competition. A driver brand avoids the negative aspects of brand dilution as it only capitalises on unique and genuine features of the island. This paper shows that social networks, through mutual learning, can “fill in the blanks” and discover which specific features fit within the driver brand. It is through the discovery of these brand complements, and co-branding opportunities, that market segmentation becomes possible. Thus, although the concept of a driver brand may initially sound to restrict the target market size, it is through the subsequent discoveries of brand complements and of their associated market segments that scale can be achieved.

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Appendix: List of Web Portals Used to Analyse Branding Practices

Jersey – http://www.jersey.com

Hebrides – http://www.visithebrides.com

Guernsey – http://www.visitguernsey.com

Isle of Man – http://www.visitisleofman.com

Iceland – http://www.icetourist.is

Isle of Skye – http://www.skye.co.uk

Orkney – http://www.visitorkney.com

Scilly – http://www.simplyscilly.co.uk

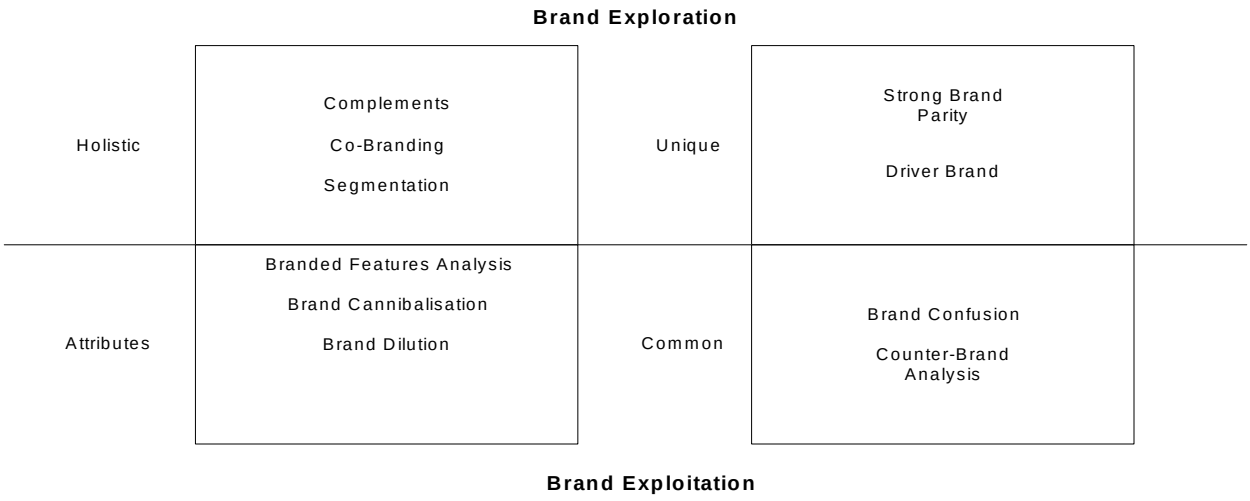

Figure 1: Conceptual Framework - Exploration and Exploitation of Brands

	Hebrides	Guernsey	Isle of Man	Jersey	Iceland	Skye	Orkney	Scilly
Cultural events	1	0	1	1	0	1	1	1
Culture, Heritage, Music	1	1	1	1	0	1	1	1
Cycle	1	0	0	1	0	0	0	0
Dining	0	1	1	1	0	1	1	0
Entertainment, Nightlife	0	0	1	0	0	0	0	0
Film	1	0	0	0	0	0	0	0
Fish	1	0	0	0	0	0	0	0
Family	0	0	0	1	0	0	1	0
Flowers	0	0	0	1	0	0	0	0
Golf	1	0	1	0	0	0	0	0
Glaciers, Volcanos	0	0	0	0	1	0	0	0
Motorsport	0	0	1	0	0	0	0	0
Outdoor rec.	1	0	0	0	1	1	1	0
Shopping	0	1	1	0	0	1	0	0
Sporting events	1	0	1	1	0	0	1	0
TT Race	0	0	1	0	0	0	0	1
Walks	0	1	1	1	0	0	0	1
Wedding	0	0	0	1	0	1	0	1
Wildlife	1	0	1	0	1	0	1	0
Winter visits	1	0	0	0	0	1	0	0

Table 1. Associative Matrix for the Brand Diagnostic

Brand Matrix	Hebrides	Guernsey	Isle of Man	Jersey	Iceland	Skye	Orkney	Scilly
Hebrides	10	1	5	4	2	4	5	2
Guernsey	1	4	4	3	0	3	2	2
Isle of Man	5	4	11	5	1	4	5	4
Jersey	4	3	5	9	0	4	5	4
Iceland	2	0	1	0	3	1	2	0
Skye	4	3	4	4	1	7	4	3
Orkney	5	2	5	5	2	4	7	2
Scilly	2	2	4	4	0	3	2	5

*Table 2. **X'X** Brand Matrix*

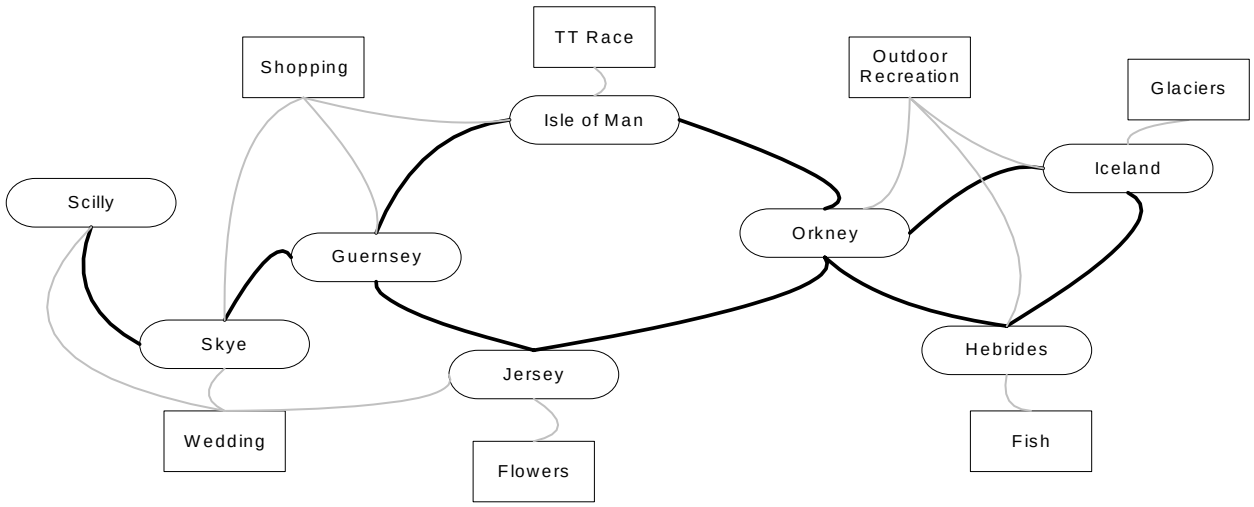

Figure 2. Associate Network for the Sample of North European Islands

Attributes Matrix	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Cultural events (1)	6	6	2	4	1	1	1	2	1	2	0	1	3	2	4	2	3	3	3	2
Culture, Heritage, Music (2)	6	7	2	5	1	1	1	2	1	2	0	1	3	3	4	2	4	3	3	2
Cycle (3)	2	2	2	1	0	1	1	1	1	1	0	0	1	0	2	0	1	1	1	1
Dining (4)	4	5	1	5	1	0	0	2	1	1	0	1	2	3	3	1	3	2	2	1
Entertainment, Nightlife (5)	1	1	0	1	1	0	0	0	0	1	0	1	0	1	1	1	1	0	1	0
Film (6)	1	1	1	0	0	1	1	0	0	1	0	0	1	0	1	0	0	0	1	1
Fish (7)	1	1	1	0	0	1	1	0	0	1	0	0	1	0	1	0	0	0	1	1
Family (8)	2	2	1	2	0	0	0	2	1	0	0	0	1	0	2	0	1	1	1	0
Flowers (9)	1	1	1	1	0	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0
Golf (10)	2	2	1	1	1	1	1	0	0	2	0	1	1	1	2	1	1	0	2	1
Glaciers, Volcanos (11)	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
Motorsport (12)	1	1	0	1	1	0	0	0	0	1	0	1	0	1	1	1	1	0	1	0
Outdoor rec. (13)	3	3	1	2	0	1	1	1	0	1	1	0	4	1	2	0	0	1	3	2
Shopping (14)	2	3	0	3	1	0	0	0	0	1	0	1	1	3	1	1	2	1	1	1
Sporting events (15)	4	4	2	3	1	1	1	2	1	2	0	1	2	1	4	1	2	1	3	1
TT Race (16)	2	2	0	1	1	0	0	0	0	1	0	1	0	1	1	2	2	1	1	0
Walks (17)	3	4	1	3	1	0	0	1	1	1	0	1	0	2	2	2	4	2	1	0
Wedding (18)	3	3	1	2	0	0	0	1	1	0	0	0	1	1	1	1	2	3	0	1
Wildlife (19)	3	3	1	2	1	1	1	1	0	2	1	1	3	1	3	1	1	0	4	1
Winter visits (20)	2	2	1	1	0	1	1	0	0	1	0	0	2	1	1	0	0	1	1	2

*Table 3. **XX'** Brand Element Matrix*

	1	2	3	4	5	6	7	8
Dimensions	**Culture & Heritage**	**TT Race**	**Sporting events**	**Shopping**	**Motor-sport**	**Golf**	**Entertain-ment**	**Dining**
Iceland								
Reality 13-tuple	**0**	**-1**	**0**	**0**	**-1**	**0**	**0**	**0**
Brand Code	**-1**	**-1**	**-1**	**-1**	**-1**	**-1**	**-1**	**-1**
Isle of Man								
Reality 13-tuple	**1**	**1**	**1**	**-1**	**1**	**0**	**0**	**0**
Brand Code	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

	9	10	11	12	13
Dimensions	**Wildlife**	**Walk**	**Glacier**	**Outdoor Recreation**	**Family**
Iceland					
Reality 13-tuple	**1**	**0**	**1**	**1**	**0**
Brand Code	**1**	**-1**	**1**	**1**	**-1**
Isle of Man					
Reality 13-tuple	**1**	**1**	**-1**	**1**	**0**
Brand Code	**1**	**1**	**-1**	**-1**	**-1**

Table 4: Simulation Initial Beliefs

Iceland P1 = 0.2 and P2 = 0.8				P1=0.5 and P2=0.5				P1=0.8 and P2=0.2		
	K	Match			K	Match			K	Match
	2000	12			2000	12			2000	5
	2000	10			2000	10			2000	6
	2000	8			2000	7			2000	9
	2000	11			2000	10			2000	6
	2000	10			2000	9			2000	7
	2000	11			2000	5			2000	7
	2000	10			2000	5			2000	5
	2000	11			4	13			2000	5
	2000	11			2000	7			2000	6
	2000	11			2000	7			2000	6
	Avg	**10.50**			**Avg**	**8.50**			**Avg**	**6.20**
	Std. Dev.	*1.08*			**Std. Dev.**	*2.76*			**Std. Dev.**	*1.23*
Isle of Man P1 = 0.2 and P2=0.8				P1=0.5 and P2=0.5				P1=0.8 and P2=0.2		
	K	Match			K	Match			K	Match
	2000	7			2000	7			2000	8
	2000	8			2000	9			2000	7
	2000	11			2000	6			2000	8
	2000	9			2000	9			2000	7
	2000	10			2000	7			2000	9
	2000	10			2000	10			2000	8
	2000	10			2000	7			2000	9
	2000	10			2000	11			2000	9
	2000	7			2000	7			2000	8
	2000	8			2000	7			2000	7
	Avg	9.00			Avg	8.00			Avg	8.00
	Std. Dev.	*1.41*			**Std. Dev.**	*1.63*			**Std. Dev.**	*0.82*

Table 5. Simulation Results