



CHALMERS
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The Future of Digital Brands

The origin, implementation, and potential benefits of
“.brand” top-level domains for businesses.

Master's thesis in Management and Economics of Innovation

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Gothenburg, Sweden, 2017

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Abstract

This report investigates the emergent phenomenon of .brand top-level domains on the internet. Insights are drawn from 19 interviews with a variety of professionals working with .brand, conducted during February-April 2017, and results are compiled, structured and explained in relation to existing theory in the fields of innovation and change management.

This report defines .brands as top-level domains that match a registered trademark and, uniquely, are controlled and used by a single entity rather than being open for public registration. Around 600 companies entered the first .brand application process in 2012, with a majority of applications now approved. Actual use of .brands is presently low but is steadily increasing.

.Brands top-level domains are shown to have several potential benefits to companies, including more efficient marketing, improved internet security and brand trust, and opportunities for further innovation and business development. A method for .brand implementation is suggested, consisting of six steps designed to overcome common barriers to .brand use in large companies. In conclusion, .brands are found to have large potential, and further applications should be investigated on a case-by-case basis.

On the other hand, .brands are also associated with large application and implementation costs, making them unsuitable for any but the largest businesses in their present form. For this reason, .brands will continue to coexist with generic TLDs for the foreseeable future.

Keywords:

dotBrand, domain name, TLD, internet, value, branding, trademark, protection, innovation, marketing, security.

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Thanks to all of my fantastic interview subjects, who have regaled me with their hopes, ideas and frustrations about .brands. I hope that this report will in some small way help them face some of their future challenges. A special thanks to the Brand Registry Group and all of its members who were especially generous with their time, knowledge, and contacts. They were the ones who in large part made this report possible.

Finally, thanks to Sara Fallahi, my Supervisor at Chalmers University of Technology, who has been incredibly helpful, insightful and encouraging throughout the entire report writing process. Without Sara, I would likely still be revising my report to this day.

Abbreviations

TLD – top level domain, the rightmost part of a domain name, after the dot.

- ccTLD – country-code top level domain, such as “.dk” for Denmark
- gTLD – generic top level domain, such as “.com” for “commercial”
- nTLD – new top level domain, any TLD introduced since 2012 through the new top-level domain program.

ICANN – Internet Corporation for Assigned Names and Numbers, the non-profit governing organization of the internet.

BRG – The Brand Registry Group, an industry organization for .brand applicants which facilitates discussion and mutual help between its members and interacts with ICANN on their behalf.

IP – Internet Protocol, usually in “IP-address”, a unique numerical address identifying anything connected to the internet. (Can alternatively also be used to mean *Intellectual Property*, but this definition is not used in this report)

DNS – Domain Name System, the hierarchical system which structures domain names and handles domain name queries.

IDN – Internationalized Domain Name, a domain name using another script than the Latin alphabet.

SEO – Search engine optimization, the practice of making a website rank highly in the results of search-engines.

URL – Uniform Resource Locator, a reference to a certain web resource, used interchangeably with “domain name” or “web address”.

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1. Introduction

This chapter gives some brief background on the recently emerged technology of .brand top-level domains and why it is an interesting area of study, and introduces Brimondo, my host company. It also elaborates on the three research questions underlying the report, and also explains some of the necessary limitations they put on the scope of the study.

1.1. Problem background

The new top-level domain program is the largest expansion of the domain name system to date, adding thousands of new top-level domains (TLDs) to the root level of the internet¹. Top-level domains (a.k.a. domain extensions) are the rightmost part of any web address, and is the first part of the address to be read by computers when deciding where to go on the internet (Chaudri, 2007). By far the most popular TLD is “.com”, followed by “.net”, although in many places geographical TLDs based on country codes (such as “.se” for Sweden) are also common (Verisign, 2016). The number of generic TLDs available for use by the public has historically been fairly low, seeing a modest expansion from the original 7 (of which only “.com”, “.net”, and sometimes “.org” made sense for most organizations) to a total of 22 TLDs, including “.biz”, “.info”, and “.travel” between 2000-2005.²

The Internet Corporation for Assigned Names and Numbers (ICANN), a non-profit organization tasked with overseeing the internet after control was given up by the U.S. military (from where the internet originated), finally decided to start a large-scale expansion of the domain name system in 2008-2009.³ Applications from organizations looking to own and manage one or more TLDs were received during a six-month application period in 2012. This process resulted in almost 2000 applications which if granted would represent an almost hundredfold increase in the number of non-country-specific TLDs on the internet.⁴

Most of these applications were for generic TLDs, such as “.organic”. Generic TLDs are typically open to the public, and anyone can buy a domain name using these TLDs (such as www.howtoeat.organic) for whatever use. However, around 600 of the applications were for TLDs

¹ ICANN Wiki. (2017C, April 12). New gTLD Program. Retrieved from ICANN Wiki: https://icannwiki.org/New_gTLD_Program

² Ibid.

³ Ibid.

⁴ Ibid.

matching brand names, such as “.nike”. These TLDs were generally not meant to be open to the public, but to be controlled and used solely by the owner of the brand name associated with that TLD (Brand Registry Group, 2017). A single-registrant TLD was not something that had really existed before, and was in this sense a completely new concept for how the internet could be organized and used.

Today, .brands are slowly being introduced into the internet strategy of some of the world’s largest companies.⁵ For these companies, .brands have the potential to enhance how they interact with their users, how they develop and market their products, and how they protect themselves and their trademarks on the internet. For users, .brands could change how they look for information online and help them avoid scams and security threats.

Although it remains too early to tell what impact .brands will ultimately have, this study will argue that they have the potential to significantly change how both businesses and users approach and use the internet in the future, in a similar way to how search engines, web 2.0 and social media, and the rise of mobile browsing and apps have all done before them.

1.2. Research purpose and audience

This master’s thesis is written at the request of Brimondo AB. Brimondo offers strategic services related to trademarks and domain names, with the mission of protecting brand value on the internet. In practice, this means assisting customers in taking control of their brand through securing all domain names relevant to that brand. Brimondo offers both strategic and operational services related to domain name protection, meaning they both actively help clients in legal conflicts and domain portfolio control as well as help them craft a powerful strategy for proactive brand protection in the future.⁶

Intellectual property issues with regards to domain names have grown in importance as businesses depend more and more on internet channels for their sales, marketing and communications (Wang F. F., 2006). A report by Fairwinds Partners (2016) found that the top 50 online retail brands lost over \$70 Million per year in direct revenues to “typosquatting”– the practice of registering domain names that are very similar to the name of an established brand, with the hope of capturing traffic meant for that brand but where users have made a mistake when typing the

⁵ MakeWay.World. (2017, April 22). Global Brands Showcase. Retrieved from Makeway.World: <http://www.makeway.world/showcase/>

⁶ Brimondo. (2017, April 22). Brimondo AB. Retrieved from Brimondo.com: www.brimondo.com

domain name (e.g. mistakenly typing in “googlw.com” instead of google.com). This number does not include loss of trust and negative experiences of users who are exposed to bad websites, surveys, viruses and malware as a result of mistyping the domain name. Other types of domain name infringement include “Cybersquatting” – the registration of trademarked domain names in bad faith, often in attempt to extort a large resale price, and “Domain name hijacking” – gaining control of a domain name through illegitimate methods, such as phishing or hacking (Chaudri, 2008).

As a company specialized in domain names, Brimondo were naturally very interested in the new gTLD program in general, and .brands specifically. They saw that .brands could potentially have a large impact on their field of trademark protection, as well as the domain name industry at large, and wanted a comprehensive overview of the nature and potential benefits of this new innovation, both to enhance their ability to create the best domain name strategy for their clients and to potentially guide the long-term development of the company’s services offering. This area also fit well with my personal background of studying technological innovations and their impacts on business, and we jointly decided that investigating .brands should be the basis of my thesis.

The purpose of the thesis on a broad level is thus to investigate the development and future of the .brand phenomenon, specifically as it relates to business and the potential benefits that businesses can gain from the use of .brand technology. For Brimondo, the purpose of the project is to gain cutting-edge knowledge about .brand as to be a leading source of knowledge on the subject, as well as to be well positioned to help their clients better navigate the constantly developing domain name ecosystem. For other interested actors in the field, this report is meant to be both an informative overview of the .brand phenomenon. And for those that are currently working on implementing a .brand as well as those who are considering applying for one in the future, I hope that it can be a helpful guide in that process, highlighting some areas that potentially be interesting to investigate more deeply.

1.3. Research Questions

As .brands are a very recent innovation, little has yet been written about them in academic circles. The first task that this study thus attempts is to give a brief overview of the history and current situation of .brand as a phenomenon. What exactly defines a .brand, what was the application process like, and who exactly had applied? Most of this information is readily available, but scattered across a whole host of sources and organizations, and so a lot of work was needed to assemble it into a single, high-level picture. The first research question is thus formulated as:

Research Question 1 - “What is the current state of the .brand phenomenon?”

with three sub-questions:

- *“What defines a .brand?”*
- *“What is the process like to get access to a .brand?”*
- *“What organizations currently have and use .brands?”*

.Brands as a technology emerged as a result of the actions of ICANN and the evolving technology of the domain name system, rather than as the solution to some clearly identifiable market need. As a result, the actual possibilities for .brands to create value for companies are still to a certain extent unknown. The second research question is therefore:

Research Question 2 - “What are the potential benefits a company can gain from the use of a brand?”

As research progressed on the first two research questions, it gradually emerged that a majority of applicant companies had still not actively started publicly using their .brand, even though several years had often passed since its delegation. This despite the existence of several areas of potential benefits from .brand implementation. The final research question thus naturally became:

Research Question 3 - “What needs to be done to gain these benefits?”

which is broken down into the sub-questions:

- *“What factors are stopping .brand owners from actively using their .brands?”*
- *“What can companies do to overcome these barriers and create value from their .brand?”*

Based on these three research questions, this report presents a background to the .brand phenomenon, including a definition and some demographics on the current state of .brand ownership, followed by a categorization of .brand benefits into three main areas of impact, and ends with some recommendations for how .brand companies should take their .brands further, including a six-step method for successful .brand implementation.

1.4. Delimitations

Along with what this report aims to do, it’s also important to explain what it leaves out. First of all, this study has focused on .brands as a phenomenon, but this focus necessitates a lesser depth

when it comes to exploring the surrounding technology ecosystem. .Brands, like anything else, do not exist in a bubble, but are affected by countless other technological and cultural developments happening alongside it. Any of these could potentially be a deciding factor regarding the future of .brands, but to keep the scope of this study manageable, these surrounding factors are left mostly out of consideration, aside from a brief comment in the discussion chapter.

This also means that some of the technologies and fields underlying .brands, such as the technical details of the DNS, the legal attributes of trademarks, etc., will not be subject to any deeper exploration, but will be mentioned only as much as is needed to gain a basic understanding. Further reading on these subjects is available elsewhere – a good place to start may be Chaudri’s 2007-2008 series of three articles on “Internet Domain Names and the Interaction with Intellectual Property”, which were essential for me to gain a basic understanding of the basics of both fields at the start of my research.

The focus of this report is further restricted to the impact of .brands on businesses and organizations. Some effects of the technology on end users will be mentioned as far as it relates to business, but any broader effects .brands may have on private individuals or society as a whole are not within the scope of this report. Given the large cost of acquiring a .brand TLD, the technology is, at least for the moment, mostly relevant for very large companies, which is why the benefits and methods presented in this report are based in the context of a large businesses, and may not be equally relevant for smaller organizations interested in a .brand.

Finally, as a simple result of the number of hours available in a day, this study has not been able to include comments from every company or industry involved in the .brand development. Effort has been made to diversify the industry, size, and role of the organizations contacted, as well as the profession of interview subjects, but this is no guarantee that every possible viewpoint on the issue has been taken into consideration. A lot of variation exists in how different companies approach .brands, which means that the results of this study can never be universally applicable.

2. Frame of Reference

To fully understand the emergence and future of .brands, we will first need to review the relevant literature from a few different areas. To start, an understanding of .brands first requires an understanding of its two underlying concepts – *domain names* and *brands*. Second, .brands are an innovation currently spreading through society, as some companies choose to adopt .brands whilst others reject them or are still unaware of their existence. This necessitates an exploration of the literature related to *innovation adoption and diffusion*. Finally, those who choose to adopt .brands face a major challenge in re-shaping their organizations to fit this new way of doing things on the internet. Theories in *change management* here help explore what organizations can do to cope with these changes.

2.1. Domain names and the DNS

At its inception, every location on the internet, such as a computer, server, router or other service, was identified through a set of numbers called an “Internet Protocol (IP)-address”, such as “172.16.254.1”. These are the numerical identifiers that internet-connected devices use to find and talk to each other (Chaudri, 2007). As the internet grew and gained more users, a different system was needed to organize these addresses and make them easier to memorize and use for humans. As a result, the Domain Name system (DNS) was created. A domain name is an alias for an IP address, made for human ease-of-use. Each domain name corresponds to one IP-address, usually that of a website, so that when a user wants to access that website, they can instruct their browser to go to, for example, “www.google.com” instead of to “74.125.225.85”.⁷

The domain name system can be thought of as the infrastructure that binds names (and their corresponding IP-addresses) into a logical hierarchy. Just like addresses in the physical world divide places hierarchically by country, region, post-code, street, number etc., the DNS assigns each digital destination a unique address, consisting of a top-level domain (“.com”), under which are second- (“google”), third-, and fourth-level domains, and so on.⁸ The structure of the DNS is illustrated in Figure 1.

⁷ Verisign. (2017, April 27). How the Domain Name System (DNS) Works. Retrieved from Verisign.com: https://www.verisign.com/en_US/website-presence/online/how-dns-works/index.xhtml

⁸ Ibid.

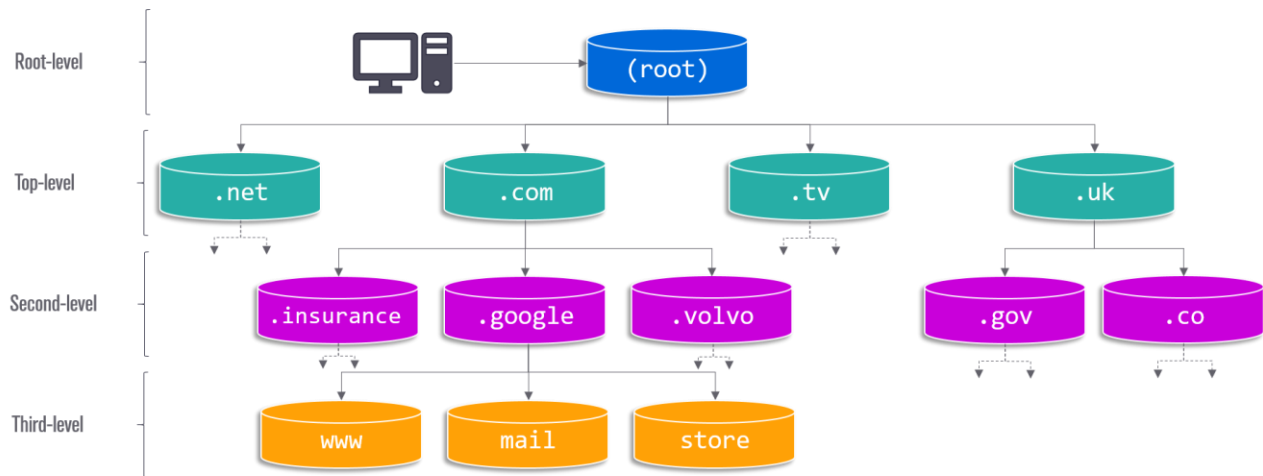


Figure 1: The structure of the domain name system

When a user asks their browser to go to the web address “mail.google.com”, for example, the computer first asks the root server where it can find the host of the “.com” top-level domain. The root server holds a registry with the locations of all top-level domains, and so forwards the query to the “.com” server. This server in turn holds a registry of all second-level domains within “.com”, including “google”, and the process is repeated as the “.com”-server forwards the query to the “google” second level domain host, which in turn finally forwards the query to the “mail” third-level domain. The query has thus arrived at its goal, and can return the correct IP-address to the user’s browser. With this hierarchical structure and recursive querying, no computer or server has to store a complete, updated list of every single domain on the internet (Wang F. F., 2006).

2.1.1. Top-level domains

Top-level domains are the largest structures in the DNS, and are historically operated by dedicated *Registrars*, which are commercial or governmental agencies responsible for maintaining the infrastructure and registry of their TLD. These organizations then sell the service of registering a second-level domain in that TLD to businesses and people, who can in turn use the domain to host content or direct visitors elsewhere (Chaudri, 2007). Control of a domain name is an asset which can be worth anything from a few dollars to many millions of dollars in rare cases (D'Onfro & Ranj, 2017).

Top-level domains can be divided into two main categories – country code TLDs and generic TLDs.⁹ Country-code TLDs (ccTLDs) are two-letter TLDs designated for specific countries and most often meant to be used by companies and people in that country. An example is the “.uk” TLD, meant for users in the United Kingdom. Some ccTLDs are also used for other purposes by registrants outside of their designated nation. This often happens when the two-letter combination can convey some other meaning, such as “.tv”, used in the sense of “television” instead of to indicate the island nation of Tuvalu (Chaudri, 2007).

Generic TLDs (gTLDs) are three-or-more character TLDs which historically indicate some category of organization behind the website. The original 7 gTLDs were “.com”, “.edu”, “.gov”, “.int”, “.mil”, “.net”, and “.org”, of which only “.com” really made sense for general-purpose registrations.¹⁰ As a result, “.com”-addresses came to dominate the landscape of the internet, and gave its name to the “dot-com-boom” of internet-based businesses and commerce of the 1990s and early 2000s. In July of 2016, 126.6 Million domain names were registered in the .com TLD, representing 71 % of the total 178.2 Million gTLD domains, and 39 % of all 326.4 million total domain names (including ccTLDs).¹¹

2.2. Brands and branding strategy

A brand is defined as a “distinctive name or symbol intended to identify the goods as belonging to a certain producer and to differentiate them from the competition” (Aaker, 2006, as cited by Budac & Baltador, 2013). Though this idea is very simple, a brand is often a major corporate resource. It can sometimes be the most valuable asset in a company and the foundation on which an entire business is built (Budac & Baltador, 2013).

2.2.1. Brand Equity

The value of a brand, its *Brand Equity*, can be measured in several different ways, but they all involve some sort of estimation of how much the brand increases profits on the goods sold under the brand name (Budac & Baltador, 2013). A strong brand can grant a company many advantages in the marketplace, including increased customer loyalty, improved perception of product value, more flexibility in pricing as a result of lower customer price sensitivity, better deals with affiliates

⁹ ICANN. (2017A, April 11). ICANN Archives - Top Level Domains (gTLDs). Retrieved from <https://archive.icann.org/en/tlds/>

¹⁰ Ibid.

¹¹ Verisign. (2016). The Domain Name Industry Brief, Volume 13.

and intermediaries, increased marketing effectiveness, and opportunities for licensing or brand extensions. All of these factors create a potential for higher margins and larger profits (Keller, 2009).

Keller (2009) presents a model for developing brand equity from the ground up, illustrated in Figure 2. In the model, the first step is creating brand *salience*, defined as awareness, recognition and spontaneous recall of the brand name. This next step seeks to create a perceived difference between the brand and other, competing brands, based on both concrete *performance* attributes, such as how well the product functions and meets user needs, as well as *imagery* attributes, including associations and emotional values imbued in the brand.

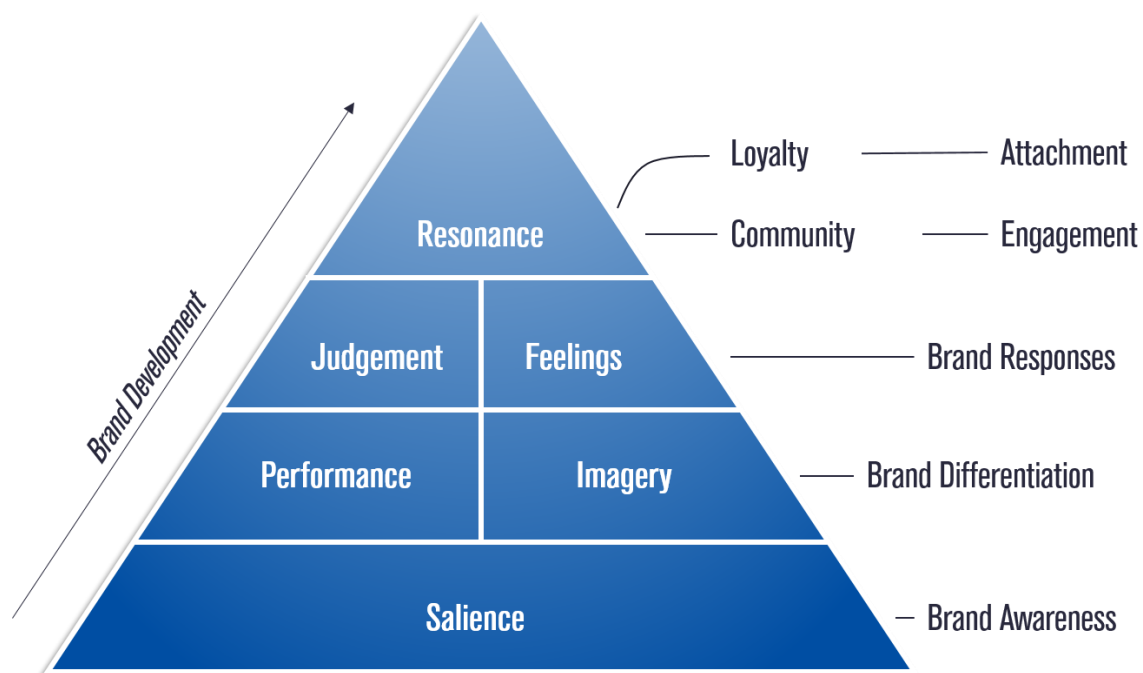


Figure 2: The pyramid model for building brand equity

On the third level, the customer develops personal responses to these brand attributes, including *judgements* about product performance and *feelings* that arise when the brand is mentioned. Only when all three of these foundational building-blocks have been established can a customer feel brand *resonance* – a strong, personal relationship with the brand, characterized by intense loyalty, emotional attachment, a sense of community with other brand users, and active engagement with the brand beyond the basic purchase of products or services (Keller, 2009).

Different marketing initiatives are better at building different parts of this pyramid. A pay-per-click ad in a search engine might be good at building salience amongst unaware customers, but is not likely to build strong emotional associations, whilst an interactive campaign on social media might be more effective at building engagement and a sense of community but lack a focus on product performance, and so on. As such, the ideal branding strategy involves a breadth of different initiatives aimed at improving all of the factors of brand development (Keller, 2009).

2.2.2. Brand dimensions and online brands

Although marketing is often the most obvious part of a brand strategy, other dimensions of how a company presents itself are often equally important in creating a strong brand image. In an interview with the Brand Agency *InVinn*, they explained how they work with four dimensions of a brand. Along with how the brand is *communicated* in marketing, etc., brand identity is also built directly from the *attributes of the products and services* offered by the brand, the *direct behavior of people* representing the brand, and the *environment* in which the brand is presented. Crucially, the brand environment includes both the physical environment (buildings, offices, factories etc.) and the digital environment. Only when all four of these dimensions are fully aligned and working in unison can a meaningful and impactful brand image be built (Ahlström, 2017).

Morgan-Thomas and Veloutsou (2013) specifically investigated the consumer experience of a brand in an online space. They argue that online brand experiences are distinguished by crowded, information-rich market-spaces, intangibility and uncertainty. They also show two major factors which impact the online brand experience – the *reputation of and trust in the brand*, along with the *perceived usefulness and ease-of-use of the brand*, both of which have a positive impact on the online brand experience, satisfaction with the brand and intentions to revisit the brand in the future (Morgan-Thomas & Veloutsou, 2013)

2.2.3. Brand Architecture

Large companies in many cases use more than one brand for different product lines and business areas. *Brand Architecture* refers to the structure in which the different brands in a company's brand portfolio are organized and connected. Aaker and Joachimsthaler (2000) arranged different styles of brand architecture into a "Brand relationship spectrum".

At one end of the spectrum is the "House of Brands" style of architecture, where individual brands are not explicitly linked together in any way, but stand completely on their own. This style is often used by large consumer goods conglomerates, where products in different verticals (and

sometimes even different products in the same vertical) go by entirely different names, and the consumer often is unaware of the common origin of many of the products. At the other end, a “Branded House” strategy relies heavily or entirely on a single “master brand” for everything that the company does. Between these two extremes are “Sub-brand” styles, where the master brand and product brand are given close-to equal status in the product name (think “Sony Walkman”), and “Endorsed brand” styles, where the main brand is given a more supporting role, lending credibility to the individual product brands without taking over (e.g. “... by Marriott” or “..., a Sony Company”) (Aaker & Joachimsthaler, 2000).

2.3. The adoption and diffusion of innovations

As this study is interested in how the innovation of .brands has been received and responded to by companies, it is first relevant to review what previous research has to say about the process which by innovations typically spread throughout a system. One of the defining authors in this field is Rogers, who summarizes a host of important results in “The Diffusion of Innovations”.

An innovation is defined as an “idea, practice or object perceived as new by an individual or organization”. Diffusion of innovation is thereby the communication and spreading of such a piece of information happening between members of a social system. This process is distinguished by some amount of uncertainty and risk, real or perceived, which individuals in the system can reduce by obtaining more information about the innovation (Rogers, 2003).

2.3.1 The innovation decision model

The first important model to review in this field is the five-step process whereby an individual makes an innovation decision – that is, decides either to adopt or reject an innovation. The five steps are illustrated in Figure 3 (adapted from Hoffmann, 2007), along with major factors impacting and outcomes resulting from each step.

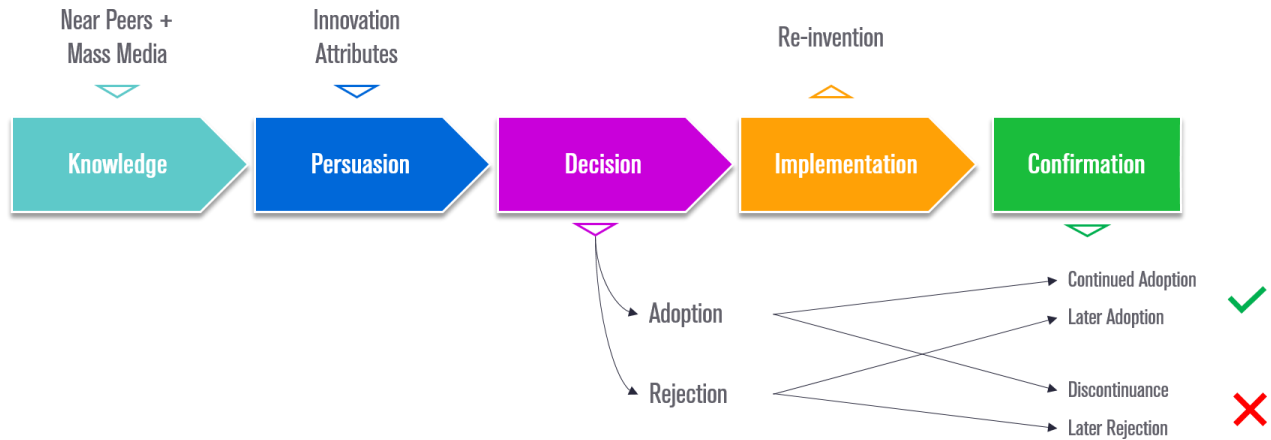


Figure 3: The five stages of the innovation decision process

The first stage in this model is the *knowledge* stage, where the individual learns about the innovation and how it functions for the first time. This information can either come through impersonal channels, like mass media, or through personal channels, like peers. This is followed by the individual forming their own opinion about the innovation during the *persuasion* stage. Information about an innovation from a personal channel, like a peer who has already adopted the innovation, is more effective at changing attitudes about the innovation, and is more likely to be the basis of an innovation decision (Rogers, 2003).

In the third stage, the individual makes an initial *decision* to either *adopt* or *reject* the innovation. This decision is then *implemented* in the fourth stage. If the decision was to adopt, this stage may also include some degree of *re-invention* of the innovation, where it is modified for the specific use and circumstance of the adopter. Decisions are not always permanent however - In the final stage of *confirmation*, the individual seeks more information supporting their decision, but may be convinced to change their mind if they instead find evidence that they've made a mistake (Rogers, 2003).

2.3.2. The innovation decision process in organizations

While the aforementioned model represents a general process for any generic decision-maker contemplating adopting an innovation, the process also takes on certain other characteristics if the decision-maker is a large organization. Organizations can be said to adopt innovations in two distinct stages – *initiation* and *implementation* (Rogers, 2003), as illustrated in Figure 4.

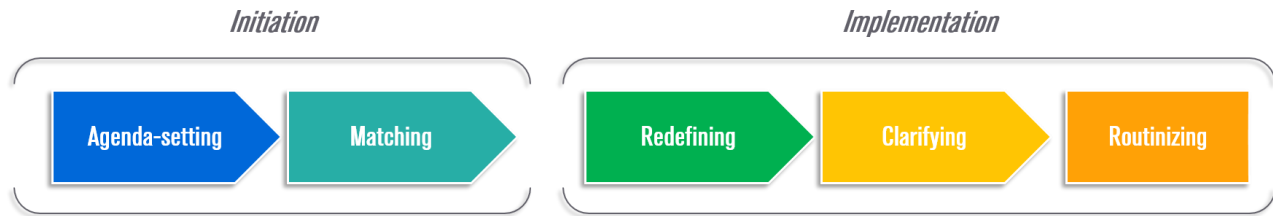


Figure 4: The innovation decision process in organizations

The *initiation*-stage begins with *Agenda-setting*, where an organizational problem or need is identified, and continues with *Matching*, where this problem or need is fit with an innovation thought to solve or fulfill it (Rogers, 2003).

If an innovation is found to fit the problem at hand, *implementation* begins. In a similar way to the first model, the innovation can here be *Redefined* to better suit the needs and structure of the organization. In organizations, this process often complemented by a process of *restructuring*, as the organization also has to change to adapt to the innovation being implemented. In the subsequent *Clarifying* phase, the innovation then gets put into more widespread use in the organization, and gradually becomes more understood and accepted by its members. Finally, the innovation process ends when the innovation has been *Routinized*, meaning it has been accepted and incorporated into the daily activities of the organization to such a degree that it no longer considered an innovation, but simply part of the accepted routine (Rogers, 2003).

An innovation is more likely to make it through all of these phases and become routinized if it was adapted through re-invention, if there was widespread organizational participation in the adoption process, and if the adoption was led by an internal *innovation champion*, who is a charismatic and often powerful person within the organization supporting the innovation through coordinating action and working to overcome resistance (Rogers, 2003).

2.3.3 The rate of adoption of an innovation

How fast an innovation spreads throughout a population (its *rate of adoption*) depends on many factors, but most important of all is how individuals perceive the innovation. More specifically, perception of five important attributes of an innovation has been found to account for about 50% of variation in an innovation's adoption rate (Rogers, 2003).

The five attributes are:

1. *Relative advantage* – how much results are perceived to be improved by using the innovation instead of existing solutions.
2. *Compatibility* – to what extent the innovation is perceived to “fit” with the current ideas, values and needs of the adopter.
3. *Complexity* – how difficult the adopter finds it to understand and use the innovation.
4. *Trialability* – how easy the adopter finds it to try out and experiment with the innovation prior to having to make a decision.
5. *Observability* – how visible the results of an innovation are to those around an adopter.

As may be expected, innovations perceived as having high relative advantage, compatibility, trialability and observability, along with low complexity, generally also exhibit a higher rate of adoption (Rogers, 2003).

Another key factor for determining the rate of adoption of an innovation is the efforts of *Change Agents*. Change agents in this context are individuals who desire to influence the adoption decision of potential adopters in some way. They can play many different roles in an adoption decision, including supplying information about the innovation, helping to identify needs and problems, assisting in implementation, or preventing discontinuation of an adoption process. Change agents often promote an innovation, and increased change agent effort thus lead to an increased rate of innovation adoption (Rogers, 2003).

2.3.4 The five categories of innovation adopters and the adoption curve

The abovementioned models all concern how adoption of innovations works on the level of individual people and organizations. But perhaps the most well-known of Rogers’ theories actually works one level higher, and describes how successful innovations diffuse throughout an entire social system. This idea can be illustrated using diffusion of innovations curve, illustrated in Figure 5, which divides innovation adopters into five distinct categories based on their “innovativeness” (Sahin, 2006).

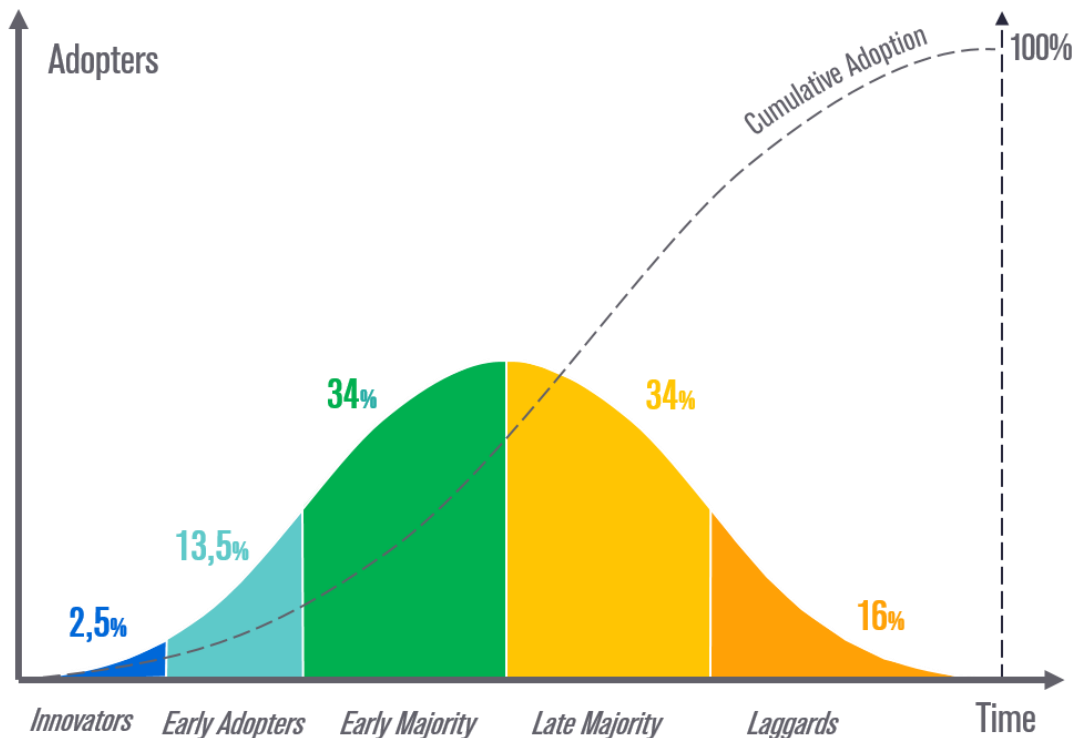


Figure 5: Roger's innovation adoption curve

The first category of innovation adopters is the *Innovators*. The members of this small yet very important group of individuals are the first to adopt a new innovation, doing so despite high risk and uncertain payoff. They are often highly knowledgeable and excited about new technology, and are willing to adopt the innovation purely out of a desire to experience something new and to be known as the first, brave explorers of previously uncharted territory. (Sahin, 2006).

After innovators pick up an innovation, the *Early Adopters* are often quick to follow. These individuals are more business-driven and have higher social status than innovators, and see the innovation as an opportunity to gain competitive advantage. Therefore, they often end up as informal leaders of the innovation process, and are crucial to introducing the innovation to a larger market (Doyle, 2016; Sahin, 2006).

The *Early Majority* are more risk-averse than the previous two categories, and want to conduct a more thorough analysis before considering adopting the innovation. They are not comfortable with going first, but also want to avoid being last, and deliberately try to stay slightly ahead of the curve. In contrast, the *Late Majority* avoid adoption until it the innovation has been decisively

proven safe and economically sound. Although they are often skeptical and cautious, they are eventually driven to conform by peer pressure and economic necessity (Doyle, 2016; Sahin, 2006).

The last group to adopt the innovation are the *Laggards*. They are conservative, skeptical, and often somewhat technophobic. The point where even the laggards are eventually forced to begrudgingly adopt an innovation is the point where it ceases to be an innovation, and simply becomes a fact of reality (Doyle, 2016; Sahin, 2006).

Generally, the more innovative a person or organization, the more connected they are to the outside world, and the more actively they seek out outside information. They also generally have higher social status, are more knowledgeable, and have more disposable resources (Doyle, 2016).

Because innovations spread based on inter-group communication, the diffusion of a successful innovation eventually becomes self-sustaining. In the initial stages, much effort may have to be expended by innovation champions and change agents to induce adoption in the first few percent of the population (the innovators and early adopters). As adoption increases, however, the innovation gets successively more accepted and proven, and at some point, diffusion may happen entirely on its own. This is when the diffusion process hits *Critical Mass* (Rogers, 2003).

Finally, it's important to acknowledge that this model assumes that the innovation is objectively better than whatever method or technology it replaces, and that it will eventually and inevitably diffuse to 100% of the relevant population of users, neither of which is of course the case for many innovations (Rogers, 2003).

2.3.5. Technology push and Demand pull innovations

Lastly, it's important to acknowledge that not all innovations are created equal. One major distinction that is often explored in the literature is that between *Technology-push* innovations, where an independent technological development provides sudden, previously unidentified possibilities in the marketplace, and *Market-pull* (or *demand-pull*) innovations, which originate from previously identified problems or needs and where attempts are consciously made to develop or find suitable solutions (Herstatt & Lettl, 2004).

Although the difference in the origin of an innovation can seem fairly minor, there are many important differences between the two types of innovation. Technology push innovations emerge without any real idea about potential market applications, which means they require more exploratory market research methods and pose higher market uncertainty than demand-driven innovations. They are also more likely to lead to larger, more long-term “disruptive” or

“breakthrough” types of innovations since they often create whole new applications in the marketplace, as opposed to the more incremental innovations often resulting when the focus lies on existing market needs (Herstatt & Lettl, 2004).

Herstatt and Lettl (2004) further identify a host of reasons for why implementation of technology-push innovations is often more challenging than that of market-pull ones. Some of these reasons are:

- Realizing unknown benefits is more difficult, and requires market analysis with a wider, more exploratory scope.
- The implementing team may need to interact with entirely different areas of the company with whom they previously had little contact, which can be difficult because of lacking incentives, resources and communication channels.
- The implementing team may lack necessary knowledge to understand new application areas.
- The innovation may not fit well into existing metrics for evaluating project success.
- It can be difficult to make users understand needs which have previously been unknown to them.
- The innovation can necessitate changes in established behavior, which can be uncomfortable and require substantial training.
- Implementation may need exploratory trial-and-error methods, which can come into conflict with established methods and expectations.

Despite these potential difficulties, technology-push-based innovations also hold great promise if implemented successfully. Some success-factors for exploring uses for new technologies include the use of cross-functional teams, engaging users into the development process, and support from high-level members of the organizations (Herstatt & Lettl, 2004).

2.4 Change management

Finally, since this report will attempt to prescribe recommendations for organizations interested in implementing .brand into their day-to-day operations, and since such an implementation would constitute a major change in any organization, it is also useful to briefly review the literature on organizational change management.

2.4.1 Lewin's three-step model

Creating change in an organization is a notoriously difficult task, and significant effort must be expended both before and after the change happens if it is to be successful. This is well illustrated in the simple yet foundational model of change management created by Lewin in the 1950's, which splits the change process into three steps - *Unfreezing* the organization, creating *Movement*, then *Re-freezing* to solidify any changes made (Levasseur, 2001).

People are, as the saying goes, creatures of habit, and generally don't like for things to change unless they have a good reason to. Meanwhile, management often has plenty of good ideas for change projects, but fail to communicate the reasoning or necessity behind these changes to the rest of the organization. With no discernable upside for organizational members to justify the necessary effort and risks, the change project is often left floundering in the water. Thus, what change leaders need to do is to first engage in an *unfreezing* process, readying the organization for changes to come. This is done through clearly communicating the necessity of the proposed changes, as well as involving people to actively participate in the planning process. Only when organizational members are on board with the project, barriers to change have been lowered and momentum has started to build, can the change process begin with the *movement* phase. Here too, change leaders should seek to involve all affected stakeholders, avoid heavy top-down micromanagement of the change which could kill any momentum, and instead simply provide a strong vision to guide the process, which will necessarily involve some trial and error (Levasseur, 2001; Manchester, et al., 2014).

Finally, even successful changes can quickly revert or dissipate if management attention and resources disappear before the dust has even settled. Instead, change leaders should stick around to continue working actively with affected members of the organization, testing, measuring, reinforcing, normalizing and further enhancing instituted changes to the point where they have completely replaced the old way of doing things. This is the process of *refreezing*, and can often take much longer than anticipated (Levasseur, 2001).

2.4.2. Kotter's eight-step model

A more recent, detailed and practitioner-oriented model which has received a lot of attention in the last few decades is Kotter's 8-step process of creating a major change (Pollack & Pollack, 2015), illustrated in Figure 6. Kotter's model also incorporates notions of unfreezing, moving and refreezing changes, yet gives some more detailed descriptions for how these things could be accomplished. The process is based on Kotter's own experiences from observing organizations and

lacks any academic foundation, yet has established itself as a central model for both researchers and active practitioners, and has mainly been supported by subsequent studies (Appelbaum, Habashy, Malo, & Shafiq, 2012; Pollack & Pollack, 2015).

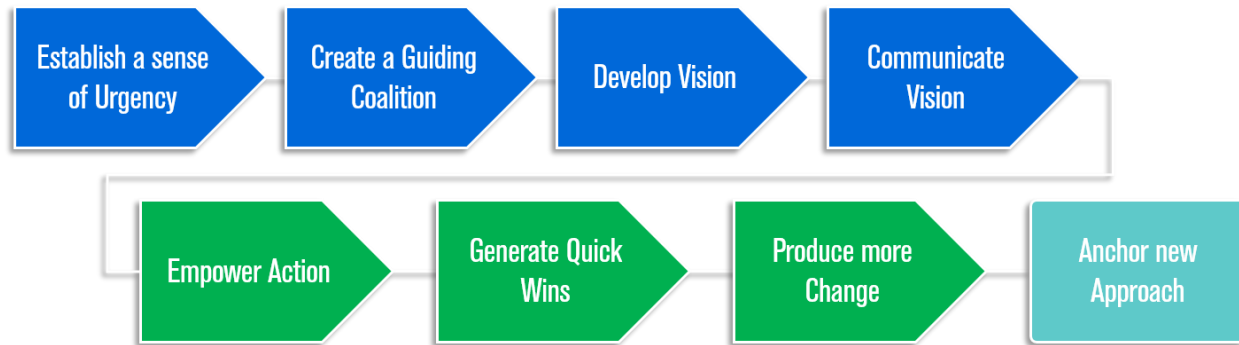


Figure 6: Kotter's 8 steps of change

The first step of Kotter's model is *establishing a sense of urgency*. Like Lewin, this step is based on finding and communicating a need for change throughout the organization, often with bold actions, aggressive communication, and reinforcement from outside sources such as consultants or media reports. This step aims to remove any lingering complacency towards change, and imbue change agents with the power and credibility required to enact change (Appelbaum, Habashy, Malo, & Shafiq, 2012).

Secondly, a *guiding coalition* must be created to manage the change process. It is difficult for any one person to lead a major change, as many different areas of expertise, styles of leadership and sources of power and credibility are often required, and it is thus imperative that the right mix of people are chosen. The coalition needs both good leaders, to create a strong guiding vision, and managers, to keep the day-to-day change process flowing smoothly (Appelbaum, Habashy, Malo, & Shafiq, 2012).

The first task of the coalition is then to *develop a vision and strategy* for the coming change. This step aims to create a strong backbone for the change project, which can otherwise often become a messy and confusing set of objectives and sub-projects once it gets started. A clear and appealing vision also helps to create engagement amongst stakeholders, and enables the organization to think longer-term and work towards more distant goals (Appelbaum, Habashy, Malo, & Shafiq, 2012).

The vision developed in step 3 now needs to be clearly communicated to the whole organization, to create engagement and reduce uncertainty, ambiguity and false rumors. In a similar way to Lewin's *unfreezing* process, this communication aims to remove barriers to change in the organization. To this end, leaders should avoid excessive one-way communication and instead try to engage people in discussion and dialogue about the proposed vision (Appelbaum, Habashy, Malo, & Shafiq, 2012). This step has been found to be one of the most important and time-consuming steps of the change process. Kotter himself identified how organizations commonly undercommunicated their vision by several orders of magnitude (Pollack & Pollack, 2015).

Even when the vision has been understood and accepted throughout the organization, momentum is building and people hopefully are rearing to get started, there could still be various other obstacles in the way before change can start happening. Step 5 therefore focuses on *empowering broad-based change* by removing obstacles and changing structures and systems which prevent movement (Pollack & Pollack, 2015). What obstacles exist depends on the specifics of the change project and organization, but typical barriers include lack of necessary knowledge and training, strict hierarchies, weak communication channels, and disincentives to bring up new ideas (Appelbaum, Habashy, Malo, & Shafiq, 2012).

Once the vision has been clearly communicated and most barriers to change have been removed, change will start happening. Most major change projects are long-term undertakings, however, and without any visible results, momentum will quickly dissipate. Kotter therefore emphasizes the importance of *generating short-term wins* for the change project. Even small successes build confidence and reassure stakeholders that their efforts will be duly rewarded (Appelbaum, Habashy, Malo, & Shafiq, 2012).

At the same time, change leaders can't lose sight of the longer-term vision. All short-term victories should be used to verify the direction of the change project, and momentum used to further tear down internal change barriers and make the organization more receptive to further changes. Kotter calls this iterative process *consolidating gains and producing more change*. Every success is used to create further wins, sustaining momentum until that point where the vision has been fulfilled (Appelbaum, Habashy, Malo, & Shafiq, 2012).

Lastly, Kotter's final step is to *anchor new approaches in the corporate culture*. Similarly to Lewin's idea of *re-freezing*, Kotter believed that new behaviors easily regress and disappear once outside pressure is removed. New people and managers entering the organization have to be brought on

board, and new approaches need to be deeply embedded into the foundations of how the company conducts its business (Appelbaum, Habashy, Malo, & Shafiq, 2012; Neumeier, 2013).

Critiques of Kotter's model include not being sufficiently specific, being difficult to use in real projects, and enforcing a sequential order of steps which in reality overlap (Pollack & Pollack, 2015). As one review concludes; "*While Kotter's eight steps remain an excellent starting point for managers implementing change in their organizations, and applying the model is likely to improve the chances of success, the model should not be considered as something that guarantees success. In practice, it may be useful to account for contextual variables and adapt the model accordingly.*" (Appelbaum, Habashy, Malo, & Shafiq, 2012, p. 14).

2.4.3. Fusing Kotter's model with Roger's Innovation decision model

Of course, the implementation of an innovation into an organization is one type of change project, which means there should be significant overlaps between ideas in the two fields. One attempt to consolidate findings from the two areas of research was made by Neumeier (2013), who combined Kotter's change management theory with Roger's model for innovation decisions, organizing steps from both theories into three distinct phases.

Neumeier's first stage, *planning change*, incorporates the knowledge, persuasion and decision phases from Roger's theory, together with the first four steps of Kotter's process. When preparing for a future innovation implementation, the focus is on creating understanding and a sense of urgency in the organization. The creation and communication of a vision needs to focus on communicating the advantage, increasing perceived compatibility and reducing perceived complexity of the innovation, to influence undecided decision-makers (Neumeier, 2013).

This is then followed by a period of *implementing change*, corresponding to the implementation stage and step 5, 6 and 7. Reducing barriers to change and engaging and empowering stakeholders here increase the likelihood of re-invention and adaptation of the innovation, and each short-term win should be celebrated and used to push further ahead (Neumeier, 2013).

Lastly, the final steps in both models are combined into the *cementing change* stage, where the organization confirms their adoption of the innovation and anchors the new practices, technologies and behaviors deeply into the day-to-day operations of the organization through continued dialogue, support and communication (Neumeier, 2013).

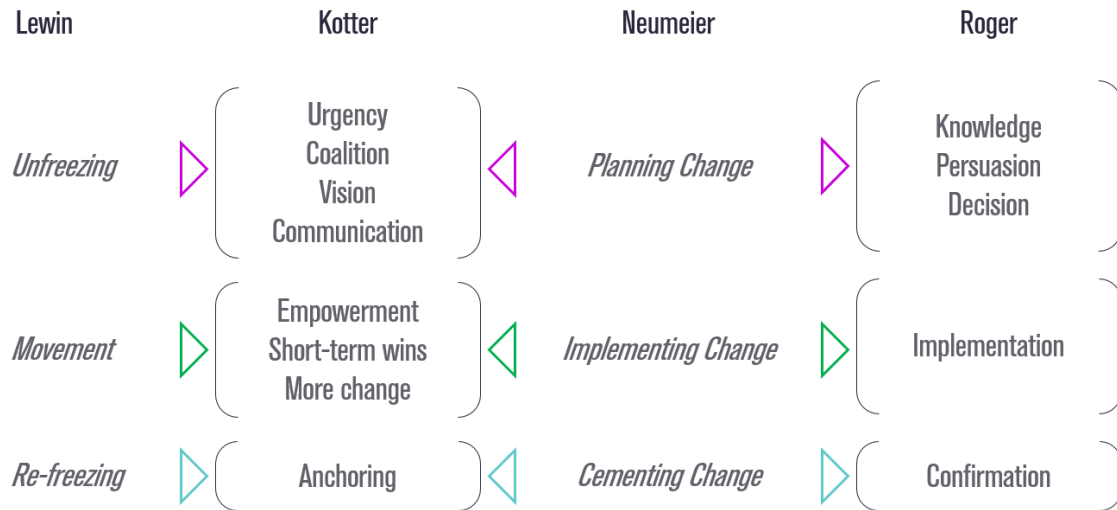


Figure 7: Exploring the connections between theories of Lewin, Kotter, Neumeier and Roger

Figure 7 above illustrates the connections between some of the theories used as a foundation for the present study. In Chapter 6, insight from these models, and the connections between them, will be used to create an original method for how the .brand innovation could successfully be implemented in organizations.

3. Method

To answer my three research questions, I relied on data from two types of sources. My primary data came from a series of 19 interviews conducted during February to April of 2017, which was complemented with data from various online sources including domain industry news sites, reports and case studies. The following chapter will give additional context as to how this research was conducted, who was interviewed, and the motivating factors behind my choice of methodology.

3.1. Motivating method choices

Because of how new the technology of .brands still is, I couldn't find any substantial academic research done on the subject. Instead, the information needed to answer my research questions existed only in the minds of those people actively involved in the day-to-day exploration and use of .brands in companies around the world.

As .brands are a recently emerging phenomenon with little existing theory, this study can be seen as an example of *phenomenon-based research*. Krogh, Rossi-Lamastra & Haefliger (2012) describe the aim of phenomenon-based research as “to capture, describe and document, as well as conceptualize, a phenomenon so that appropriate theorizing and the development of research designs can proceed”. It's characterized by broad, open-ended research problems with no strong *a-priori* hypotheses (Krogh, Rossi-Lamastra, & Haefliger, 2012).

Considering these attributes of the chosen problem, the main method chosen to approach my research questions was the use of qualitative interviews with people professionally involved with .brands in some function. Qualitative research is suitable for explorative, open-ended questions, and enables a researcher to learn about phenomena in their proper context. The aim is to develop an understanding of the real-life situation and worldview of interview subjects, to understand what concepts are used as the basis for their opinions and beliefs, and to explore the underlying logic behind these conclusions. It's also a useful method for building trust and getting access to information that may be hard to disclose in other, less direct, interactive or confidential communication (Easterby-Smith, Thorpe, & Jackson, 2015).

The choice of interview subjects was based on previous contacts from my host company, contacts details that were submitted by companies as part of the initial (public) .brand applications, and referrals from previous interviewees. The last type of contacts can be seen as an instance of

snowball sampling, where one interview subject is asked to recommend others for further interviews, and can potentially lead to bias in subject selection as interviewees are more likely to have similar views than if they had been selected randomly (Easterby-Smith, Thorpe, & Jackson, 2015). However, it also helps establish contact with insightful individuals that would otherwise be very difficult to reach (Easterby-Smith, Thorpe, & Jackson, 2015), which is why the risk of bias was deemed acceptable for this study.

One problem with qualitative interviews is that they are often very time-consuming, meaning the number of people who can be interviewed for a given study is fairly limited (Easterby-Smith, Thorpe, & Jackson, 2015). At the same time, answering my research questions well required talking to people from varied backgrounds and professions, to ensure that all important perspectives on the issue could be covered. For this reason, a major focus in the subject selection for this study was to find as varied a set of interview subjects as possible, including representatives from companies who have applied for and been delegated a .brand, third-party consultancies assisting .brand applicants, as well as representatives of .brand interest groups and governing bodies. Interview subjects have had both varied backgrounds (including legal, IT, sales, communications, management, operations, and domain name experts) and come from many different industries (including manufacturing, automotive, media, pharmaceuticals, software, hospitality, and finance).

Speaking to a wide variety of people is likely to lead to conflicting data points, as different individuals have different ideas and priorities about the topic at hand. In the data analysis, this data needs to be boiled down to its essential findings, which was done by comparing and contrasting what had been said by different sources. The more people espouse a certain idea, and the more varied the background of these people, the more likely that idea is to carry some truth behind it, and the more weight it was given in the analysis. Although it does not strive to develop any new theory, this methodology carries some similarities to *grounded analysis*, in that it does not impose any predefined structure on the data, but let's the data itself guide the creation of categories and structure the results, through codifying and finding patterns of similarity and frequency in interview statements (Easterby-Smith, Thorpe, & Jackson, 2015).

A qualitative, emergent approach was also present in the creation and shaping of my research questions, which came about as a result of alternating cycles of data collection and data analysis that gradually built up to a coherent set of results. Starting with a fairly vague idea of exploring .brands as a phenomenon, the data from my first round of interviews was collected, analyzed, and

used to guide the direction of further exploration. The third research question of this study in particular was not an intended part of the study at the start, but arose from frequent, independent mentions of barriers to implementation by interview subjects. A positive result of this approach is that since my research questions were shaped directly by problems and questions faced by practitioners in the field, there is a good chance that the results of the study will be highly relevant to a variety of readers.

3.2. Phases of Data Collection

As mentioned above, this study is primarily based on 19 interviews with representatives from 16 different companies and organizations. They were split into 3 main interview phases, each with a different focus. Before any interviews could be conducted, however, I first needed to read up on and understand the subject I was entering, to be able to speak with industry practitioners in their own language. The first few weeks of research were therefore spent in what could be called “Phase 0” – an exploration of the .brand subject through online sources such as domain industry news sites, the professional blogs of consultants and practitioners, case studies of .brand implementations, and industry reports on .brands and the new gTLD program. Sources for phase 0 were initially found mostly through searching for relevant keywords in different search engines, both general and academic. Even after starting the interviews, online research continued throughout the course of the study, as new areas of interest appeared, new developments occurred in the field, and the people I spoke to directed me towards new sources and keywords.

After a couple of weeks of research, the first phase of interviews was started. It contained a total of four interviews focused on .brand applicants in Scandinavia, and had a highly exploratory focus, dealing mostly with the application process and potential benefits expected from .brands. Every interview had a different focus, with interview subjects having backgrounds in either IT, Legal, and Marketing / Communications, in effort to get a complete picture of the benefits the companies hoped to see from their .brands, and the reasoning that had led up to their applications.

Table 1. The four phases of research in this study

	Phase 0	Phase 1	Phase 2	Phase 3
# of Interviews	-	4	9	5
Main Focus	Benefits, Background	Benefits, Background	Barriers, Background	Barriers, Benefits
Time period	February - April	February	March	April
Location	Online Research	Scandinavia	ICANN 58, Copenhagen	Remote Interviews, Globally

The second phase consisted of 9 interviews held in quick succession during 5 days at the *ICANN 58* domain industry conference held in Copenhagen in March, 2017, and constituted a major part of my data collection. Interview subjects included several members of the Brand Registry Group, as well as representatives from two major .brand back-end infrastructure providers who in total assisted several hundred .brand applicants in their applications. During this time, I also attended some lectures and discussions on the topic, and became more familiar with the domain name field as a whole.

The third and final phase of interviews focused on complementing the data I had already collected by finding industries and perspectives that were not yet represented in my data set. I spoke to a bank and a hospitality company, and finally also managed to get a sense of the field from the perspective of ICANN itself by interviewing one of its senior members. As these contacts were located all over the globe, the interviews in this phase were all conducted remotely over the phone or VoIP. A complete index of my interviewees, divided by interview phase, can be found in table 2.

Table 2. Index of interview subjects with profession and industry

Interview Subject	Role and Company
Phase 1	
Person A	Communications Coordinator at A Co., large Scandinavian manufacturer
Person B	Digital Brand Director at B Co., large Scandinavian manufacturer
Person C	Trademark Manager at A Co., large Scandinavian manufacturer
Person D	Web Manager at A Co., large Scandinavian manufacturer
Phase 2	
Person E	Domain name policy at C Co., large .brand back-end provider
Person F	Domain name consultant at D Co.
Person G	Domain name researcher and consultant at E Co.
Person H	Project manager for a major city geo-TLD
Person I	Trademarks Counsel at F Co., large Scandinavian pharmaceutical company
Person J	Domains manager at G Co., large American software company
Person K	Domains Director at H Co., large American media company
Person L	Senior Lawyer at I Co., large European media company
Person M	CMO at J Co., large .brand back-end provider
Phase 3	
Person N	Brand protection at K Co., large American software company
Person O	VP of Brand at L Co., large Scandinavian hospitality company
Person P	Digital Services at M Co., large European bank
Person Q	Services manager at C Co., large .brand back-end provider
Person R	VP at ICANN

Before every interview, a rough question template was created based on the specific company and situation, the information I hoped to get out of that specific interview, as well as what information I had gathered previously. All interview questions were made to be very open-ended to allow for the interview subject to guide the conversation to the areas that they thought were the most interesting and relevant. At the same time, the goal was also to explore whether the interview subject would confirm or conflict certain information gathered previously, as gathering many different perspectives on the same issues was a primary goal of my interviews.

3.3. Data Processing

Data from the interviews was processed in several stages. First, during the interview, a very brief set of notes was taken, made up mostly of single words and short statements. In the minority of

cases where the interview was not recorded, these notes were gone over and fleshed out into clear points and full sentences immediately after the interview was finished, to avoid losing any important insights. In 10 of my 19 interviews, an audio recording was made of the interview, meaning the risk of data loss was smaller, and the initial notes could then be refined using this recording sometime in the days following the interview. (No recording was made either when the interview subject requested it, or when the software used for the interview or other circumstances didn't allow it.)

At the end of the research process, each recorded interview was listened through again, often with the added context of subsequent interviews creating new meaning from certain statements, and notes were further complemented. During this process, especially insightful or illustrative quotes were also noted.

These quotes, along with general sentiments and ideas brought up in the interviews and data from online sources collected throughout the study, were then summarized, categorized and compared. This process used a large number of post-it notes on which individual data points could be written, and these notes were then grouped together in different constellations to find similarities and contradictions. This process happened over a long period of time, as new data was added throughout, and input from colleagues at my host company was taken on the resulting groupings and results. Through this iterative process, common ideas and sentiments could be clustered together and refined into higher-level key findings, which were then strung together into the models and narratives that make up the results of this report.

3.4. Research quality

My hope is that the breadth of interview subjects and discussion topics, together with a method of analysis based on triangulation from sentiments expressed by these interview subjects, will have granted this study some level of validity and reliability. Because most of my results are derived from the statements of multiple independent interview subjects, they are likely to be an approximation of the “average” views held by the community around .brands at large, and subsequent studies into the area are thus likely to come to similar findings, creating reliability. Attempts to create internal validity through credibility and trustworthiness led to using data to both create the research questions, inform interview questionnaires, form the results and then independently confirm them. Finally, the wide variety of interview subjects’ perspectives, both in the sense of subjects’ industries, professions and roles in the community, increases the external validity in the sense that results are valid for a wide variety of businesses and contexts.

4. The background of .brand

The first three sub-questions underlying this report are: 1) *What is a .brand*, 2) *How does an organization get a .brand*, and 3) *What organizations currently have and use .brands?*". In this chapter, I attempt to answer these questions by defining what exactly a .brand is, giving a brief history of the nTLD program and its application process, and present some demographics of .brand applicants.

4.1. The new gTLD program

Ownership of a .brand TLD has just recently become possible as a result of other developments in the domain name system, namely the *new generic top-level domain (gTLD) program*. To understand .brands, we first need an idea about the developments and events that led to their emergence.

Around the start of the 21st century, more and more companies all over the world realized they needed to have a presence online. For most, ".com" was the obvious choice of a TLD when deciding on a domain name to use. As a result, second-level domains for the .com TLD that were sufficiently memorable, meaningful and short became increasingly rare. As online marketing and communications increased in importance, the availability of matching domain names became a major factor of consideration in naming new companies or products. Some .com domain names started selling for prices in the many millions of dollars.

In response to these domain name shortages, The Internet Corporation for Assigned Names and Numbers (ICANN), a non-profit organization charged with overseeing the infrastructure of the internet, started working on expanding the set of available generic top-level domains available for public registration. After introducing seven new TLDs in a trial phase in 2000-2002, including ".biz", ".info" and ".name", and a further six in 2003-2004, including ".asia" and ".travel", ICANN finally opened up a large scale new top-level domain (nTLD) application process in January of 2012. The stated goal of the program was to "*enhance innovation, competition and consumer choice*".¹²

¹² ICANN. (2017B, May 2). About the Program. Retrieved from New Generic Top-level Domains: <https://newgtlds.icann.org/en/about/program>

Table 3. Statistics from the new gTLD program

	Generic	.Brand	IDN	Total
Applications	1,150	664	116	1930
Delegated	580	544	92	1,216

Interest in controlling new TLDs exceeded expectations, as 1,268 applicants turned up to submit a total of 1,930 applications for new TLDs.¹³ Of these, 1,150 were generic or geographical TLDs, such as “pets” or “.london”, and 116 were Internationalized domain names (IDN) - TLDs based on other scripts than the latin alphabet, such as “.コム” (“.com” in Japanese *katakana*). In both of these categories, a vast majority of applicants intended to control the TLD in order to sell second-level domains to the general public, in the same way that previous TLD registries had been operated. Some statistics about applicant numbers and new gTLD delegations are presented in Table 3.

The last group of applicants, however, were decidedly different. They have since been dubbed “.brand” TLDs, as they are in essence TLDs which match a brand name, and were applied for by the brand owners themselves. As we will see, .brands were a completely new concept for a TLD from anything that had been seen before.

4.2. What is a .brand?

The definition of a .brand relies on two attributes that set them apart from any other type of TLD. First, a .brand TLD is a TLD which *matches the textual elements of a registered trademark*¹⁴, that is, the string of letters that a user types in at the end of the domain name to access some website is the same string that a company uses to identify some or all of its good or services when doing business.

Secondly, a .brand TLD is a TLD meant *for use only by the company owning it*, along with possible affiliates or trademark licensees of that company¹⁵, and is therefore *not* meant to be offered

¹³ ICANN Wiki. (2017C, April 12). New gTLD Program. Retrieved from ICANN Wiki: https://icannwiki.org/New_gTLD_Program

¹⁴ ICANN. (2014). Specification 13 - .Brand TLD Provisions. California: ICANN.

¹⁵ Ibid.

access to by any member of the general public, as would be the case with all other TLDs. The .brand owner has full control over their TLD, essentially “owning their own part of the internet”, and can freely register any higher-level domain on that TLD without worrying about conflicting registrations or high prices.

These attributes are what set .brands apart, and underlie all of the advantages they potentially offer over normal TLDs. It is technically possible for a company to register a TLD which matches their brand name and intending to offer access to it to the general public, but such a TLD would not fall under the definition of a .brand, and will thus not be the subject of this report.

4.3. The application process

To understand how the situation regarding .brands has become what it is today, we will first need to go through some of the more important events impacting the development of the .brand phenomenon over the last few years, and investigate the circumstances under which many of today's .brand owners first made their applications.

4.3.1. Initial applications

The launch of the new gTLD program and its associated *applicant guidebook* was approved by ICANN's board of directors in June of 2011. The window for applications to control a new gTLD was open for a little over three months (originally intended to be exactly three months, but extended for one week due to technical problems in the application system), during which any prospective applicant had to review an almost 100-page registry agreement of legal and technical requirements, then submit an equally long application form answering a host of questions. Applications also incurred a fee of \$185,000 USD, intended to cover the cost of evaluation.

Since the new gTLD program was originally intended for existing domain name registrars with years of experience of operating in the domain name industry, and registration of domains on the TLDs in question were expected to be offered in turn to the general public, this level of requirements made sense given the expected context. Owning and operating a TLD used by the public is a serious responsibility, as any technical or legal issues could have large ramifications for those businesses and people that depend on that infrastructure for their online presence.

"Owning a TLD is a very significant undertaking. It's real estate on the root zone of the internet. We have to make sure that those who get that kind of thing are qualified, that they live up to very high standards in everything from technical

capabilities, financial stability, that there are no intellectual property issues and so on..." – Person R

Companies applying for .brands, on the other hand, in many cases had less experience with the technical details of DNS operation, and were often overwhelmed by the extensive requirements set for the application. In response, almost all .brand applicants sought assistance from experienced third parties from the domain industry for creating their applications, as well to take on the responsibility of running the day-to-day operations of hosting their TLD in a way that fulfilled the high technical standards set by ICANN. The only exceptions were companies like Google and Amazon, both with their main business based entirely on the internet and both applying for over 70 TLDs each, including both .brands and generic terms.

"There's no reason for companies to do the technology part themselves, because [that service] is readily available, it's efficient, you get expert people who can meet all of ICANN's requirements [...] You can focus on your business and not on whether your DNS is going to be up or not." – Person M

In total, around 30 different such “back-end providers” were involved in different .brand applications, but the field was dominated by the top 3 – Verisign, which operates “.com” and “.net”, Afilias, which operates “.org”, and Neustar, which operates “.biz” etc. These three assisted around 150 .brand applications each, which in total means they stood behind over 70% of all applied-for .brands.

4.3.2. Criticisms and the creation of Specification 13

Despite available assistance from back-end providers, many believed that it did not make sense for .brand applicants to have to live up to the same standards as other TLDs. They argued that since .brands were intended only for use by the applicant company, any technical or legal problems would only hurt their own interests, and would not damage the general public in the same way as for other TLDs. And since a majority of them used basically the same back-end structure, provided by one of the established back-end providers, and had the same basic business model, it didn't make sense that each .brand application should have to be evaluated separately, which was highly costly and time-consuming for everyone involved. There was also a lot of uncertainty about whether or not .brands would even be able to operate as a single-registrant TLD, as this was specifically prohibited in the registry agreement for new gTLDs (in Specification 9, specifically).

"Even when we were originally doing the registry agreements and the whole application process, there was a lot of stuff that didn't really apply [because of our business models] but we jumped through the hoops for it anyway. But it's in nobody's interest to do that because it's not efficient for ICANN, it's not efficient for Brands, and it's not efficient for other applicants either." – Person L

However, because of the nature of the application process, the contract in question could not be negotiated in the same way businesses normally would. Many businesses also did not want to publically reveal that they had applied or considered applying for their .brand, in the fear that competitors or opportunists would then do the same thing.

"This is a really odd situation because... You enter into a contract thinking that you can negotiate the contract and come to equal terms, but that's not how this really works. To a large degree it was an agreement that we were forced to sign, take it or leave it." – Person K

After “reveal day” in June of 2012, when it emerged that over 600 .brand applications had been received by ICANN (many times the estimated amount), criticisms intensified. A handful of .brand applicants came together to form the *Brand Registry Group* (BRG), a coalition of .brand companies with the stated mission to provide advocacy and representation towards ICANN and other governing bodies on behalf of its members, along with offering opportunities for networking and development of best-practices.¹⁶

The BRG and others engaged in discussions with ICANN about potential adjustments of the registry agreement for .brands. These discussions resulted in the amendment of the registry agreement through the passing of the additional Specification 13 in May of 2014. Specification 13 was included the first formal recognition of .brands from ICANN, and set out a series of requirements to be qualified as a .brand applicant. These included ownership and proven use of the corresponding trademark prior to the initial TLD application, and agreement that the TLD will only be used by the company and its immediate affiliates and licensees¹⁷.

If .brand applicants also decided to apply to be included in Specification 13, they were made exempt from many of the requirements put onto other TLD applicants, such as needing to provide

¹⁶ BRG. (2017, May 2). Our Vision and Mission. Retrieved from .Brand Registry Group : <http://brandregistrygroup.org/our-vision-and-mission/>

¹⁷ ICANN. (2014). Specification 13 - .Brand TLD Provisions. California: ICANN.

special “*sunrise periods*” for prioritized domain name registrations and having to offer equal access to their TLD to all registrars, which didn’t make sense given their intended use of their TLDs. They were also guaranteed additional protection in the case of quitting their registry agreement, meaning their name would not be immediately passed on to another actor.

4.3.3. Ordering, objections and start of delegations

Given the unexpectedly high number of applications, ICANN had their work cut out for them. The first major contention occurred around which order the applications should be processed. Given that it could be several years between the first and last evaluation were completed, potentially giving huge advantages to businesses that were evaluated early, it was essential that the ordering was decided in a fair manner. After much discussion, the matter was eventually decided through lottery in December of 2012, and the first set of Initial Evaluation results were published in March of 2013. (A timeline of important events and milestones in the new gTLD program is presented in Figure 8).

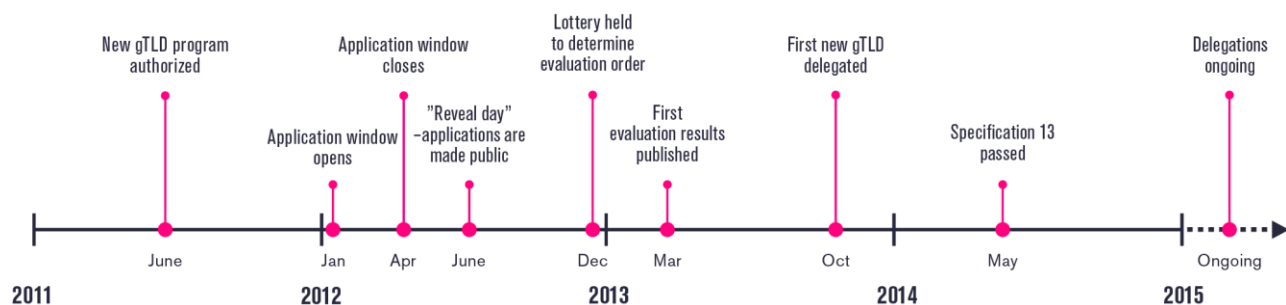


Figure 8: Timeline of important events for the new gTLD program

Once an application had passed initial evaluation, there were four possible grounds for the community to make objections. The first was a *Legal Rights Objection*, where a trademark holder could object to a TLD which clearly infringed on their intellectual property in a way which could potentially cause confusion for consumers. This created issues especially for companies that shared a brand name with some other company in a different region or industry. If the companies are different enough that there is no chance that their products will be mistaken for the others’, the companies could have gone by the same name for decades without any problems. The very nature of a TLD however is no be globally unique, which meant that two companies that may not have had any conflicts beforehand could now suddenly be in contention for control of the TLD matching their names. Only a few .brands ended up in this sort of conflict, including Scandinavian

Airline Systems and SAS institute for “.sas”, which was resolved privately between the two¹⁸, as well as American Merck & Co. Inc. and German Merck KGaA for “.merck”, for which the process has currently been put on hold¹⁹.

The second type of conflict was a *Public Interest Objection*, by which a party could object to a TLD on the grounds that it in some way goes against common law or morality. As an example, objections against the generic “.sex” TLD was made on these grounds, but ultimately failed.²⁰

A *Community Objection* was the third variety, based on the TLD application being potentially damaging to a clearly identifiable community of people. As an example, Amazon.com applied for the .brand “.amazon”, but their application was successfully stopped on the grounds that it would be damaging to the population in the geographical Amazon area (Murphy, 2014).

Lastly, a *String Confusion Objection* could be made on the grounds that the TLD was visually confusingly similar to another existing or proposed TLD. One example of this is the proposed .brand “.unicom”, which was found to be confusingly similar to the generic “.unicorn” TLD, meaning that only one of these applications could ultimately be accepted (in this case, “.unicom” won the contention and was eventually delegated) (Murphy, 2013).

If there were no objections to the application, or all objections were cleared, and no other applications existed for the same TLD, the applicant would move on to signing the final contract with ICANN, and the TLD could be delegated. The first gTLDs to be delegated were four generic IDNs that were delegated in October of 2013. The first .brands were “.中信” (CITIC in Chinese) and “.monash” for Monash University, which were delegated on the 18th of January 2014. Delegations have continued steadily until the present day of April 2017.

4.4. Demography of .brand applicants

So what were the 600-odd .brands that were applied for in the first round of the new gTLD program, and are there any interesting patterns or insights to be drawn from the applicant demographics?

¹⁸ ICANN Wiki. (2017D, May 3). .sas. Retrieved from icannwiki.org: <https://icannwiki.org/.sas>

¹⁹ ICANN Wiki. (2017E, May 3). .merck. Retrieved from icannwiki.org: <https://icannwiki.org/.merck>

²⁰ ICANN. (2017A, April 11). ICANN Archives - Top Level Domains (gTLDs). Retrieved from <https://archive.icann.org/en/tlds/>

First of all, the brands who applied for their own TLD (and paid the requisite fee of \$185.000) were as a rule fairly large and valuable. Of the 100 brands ranked as most valuable by brand consultancy Interbrand, 48 applied for a .brand, including 8 out of the top 10 (Pahud, 2016). The top few, including Apple, Microsoft and Google, applied for more than one .brand each. That's not to say that all major, global brands applied however. Notable exceptions include Coca-Cola, Mercedes-Benz, and Facebook, none of which applied for a single .brand.



Figure 9: Interbrand's top 10 most valuable brands of 2016, and if they applied for a .brand

After the whole set of nTLD applications were made public on Reveal Day, several people attempted to classify .brand applicants based on industry, including Neustar,²¹ MarkMonitor,²² and DotBrandObservatory.²³ As the brands in question often belonged to large, global companies with business interests in different sectors and countries, and the definitions of "industries" often are far from universally accepted, these classifications all gave slightly different results.

²¹ Neustar. (2014). The FAQs of New TLDs. Neustar. Retrieved from Neustar.biz.

²² MarkMonitor. (2012, June 14). .Brand Applications Account for One Thirds of All New gTLD Applications. Retrieved from Markmonitor Blog: <https://www.markmonitor.com/mmblog/brand-applications-account-for-one-third-of-all-new-gtld-applications/>

²³ DotBrandObservatory. (2017, May 3). Dot Brand Dashboard. Retrieved from The Dot Brand Observatory: https://dotbrandobservatory.com/dashboard/dot-brand-dashboard/#_Stats

Nevertheless, I attempted my own classification of all 661 .brand applications as listed on the ICANN Wiki,²⁴ and the results of this classification are presented in figure 10 below.

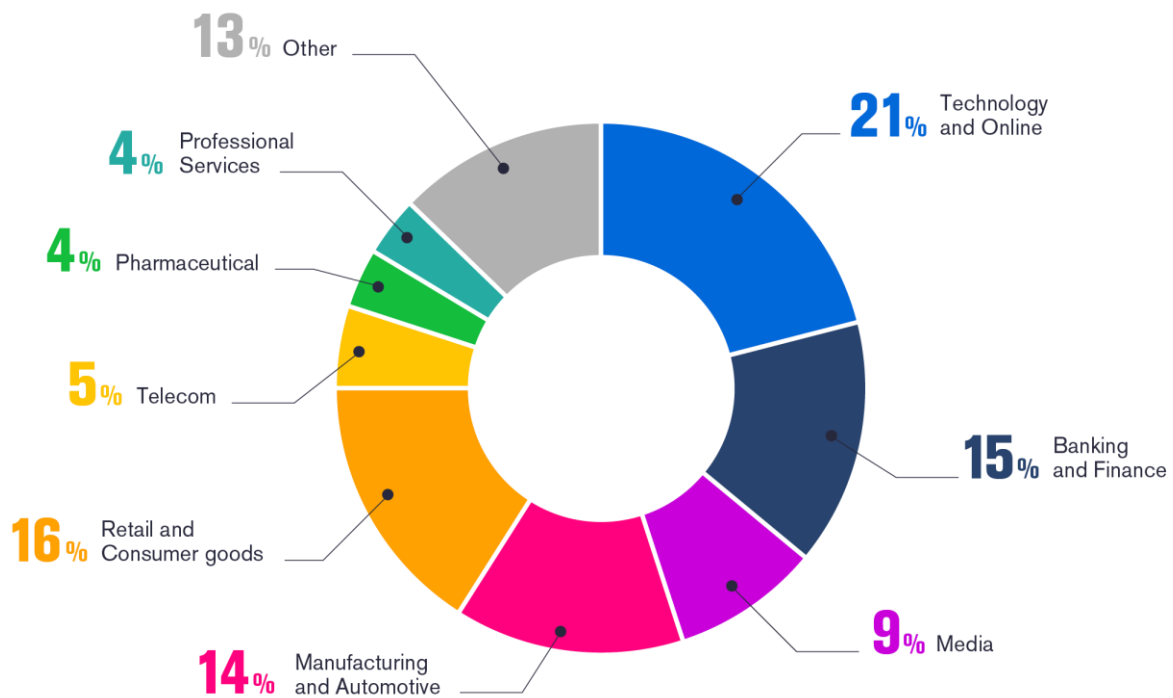


Figure 10: Categorization of .brand applications by industry, based on data from ICANNWiki

Generally, although they might have been given different names, five major groupings of companies came out on top of the .brand application rankings in most classification efforts. These top 5 groupings are highlighted in figure 11 below, along with some illustrative examples of companies belonging to each group.

²⁴ ICANN Wiki. (2017B, May 3). New gTLD Brand Applications. Retrieved from ICANN Wiki: https://icannwiki.org/New_gTLD_Brand_Applications

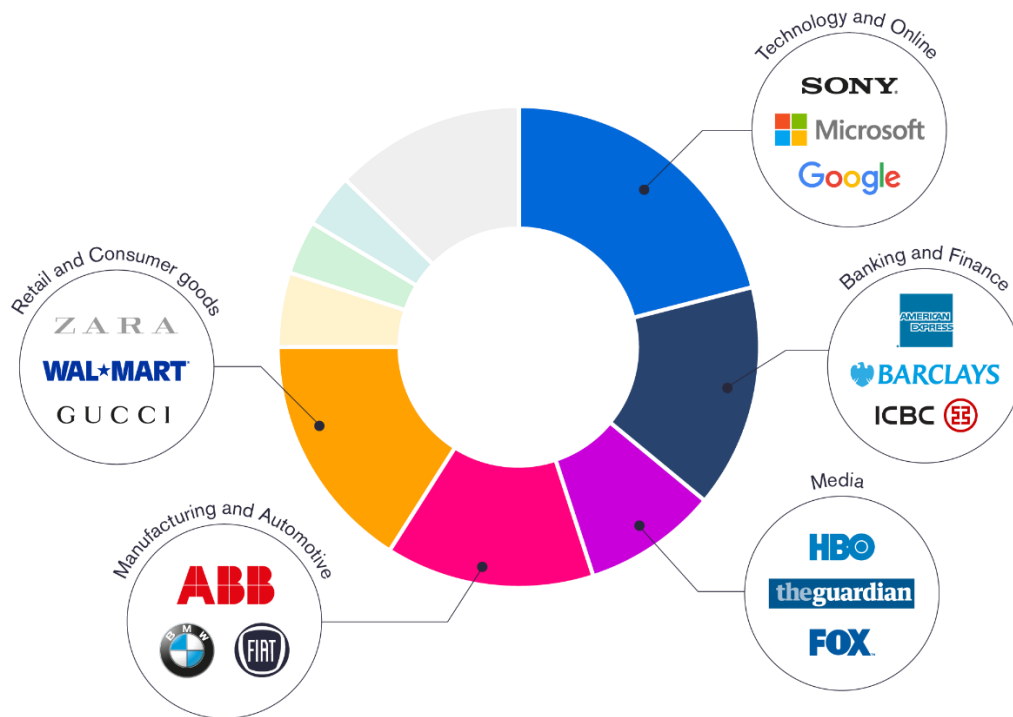


Figure 11: The top 5 industries by .brand applications, and some prominent applicants in each category

With a deeper investigation of the potential benefits of .brands in the next chapter, it will hopefully become increasingly clear why these were the industries that were particularly interested on getting their own branded TLDs as quickly as possible. This because they are all business areas where one or all of the major .brand benefits presented have the potential to make a large impact.

Finally, the geographical spread of .brand applicants closely followed that of new gTLD applications as a whole, with North America taking the lead based entirely on the 228 applications submitted by U.S. companies (almost five times as many applications as the 48 submitted by companies in the runner-up country - Germany), followed by Europe and Asia. African companies did initially apply for 9 .brands, but all of them failed to go live within a designated time-period after contracting and were rescinded. The categorization, presented below in figure 12, is based on delegated .brands (as opposed to .brand applications), with data courtesy of DotBrandObservatory.²⁵

²⁵ DotBrandObservatory. (2017, May 3). Dot Brand Dashboard. Retrieved from The Dot Brand Observatory: https://dotbrandobservatory.com/dashboard/dot-brand-dashboard/#_Stats

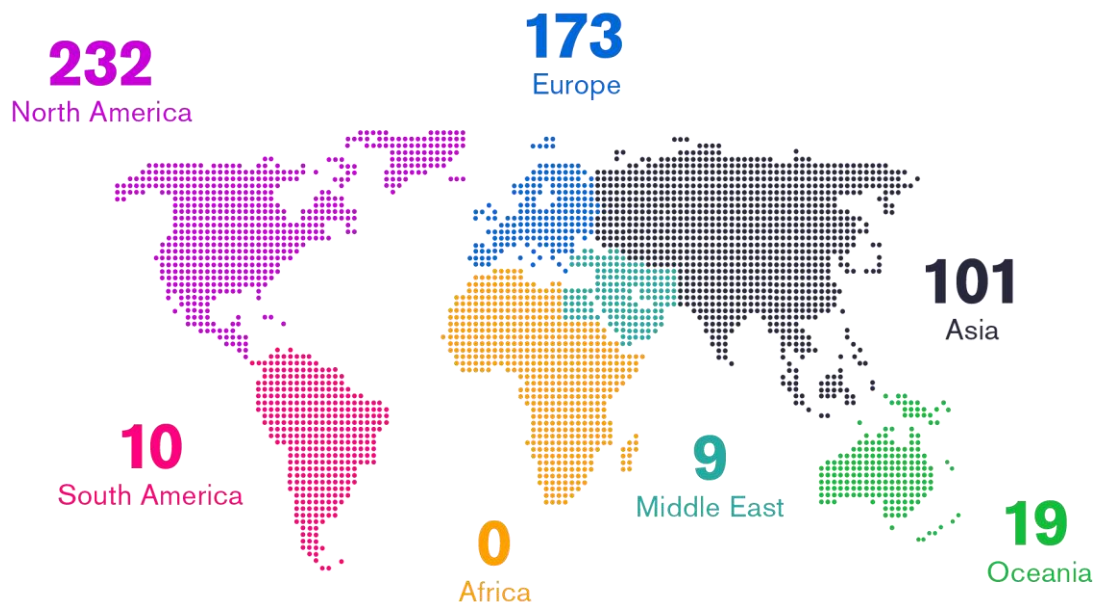


Figure 12: Categorization of .brand applicants by geographical region, based on data from DotBrandObservatory

Interestingly, around 20 brands have also been delegated .brand TLDs in other scripts than the latin alphabet – so called Internationalized Domain Names (IDN). There are IDN .brands in chinese, arabic, korean, japanese, and other scripts, all applied for by companies wanting to adapt their internet presence to a more local audience. Most companies who applied for IDN .brands also applied for the same brand in latin script.

4.5. The current situation

As of April of 2017, most .brand applications have completed the evaluation process and been *delegated*, meaning they have been registered in the root zone and a mandatory first website (of the type “nic.brand”, for “Network Interface Controller”) has gone live. About 10 % of initial .brand applications have been withdrawn or otherwise abandoned.

4.5.1. Currently active .brands

Aside from their mandatory “nic-site”, a majority of brands have not yet started using their .brand very actively. Only 240 .brands have registered a second domain name (aside from their nic-site) on their TLD, and only 122 are yet using their new TLD actively in the course of their business in any way. There are many reasons for this slow rollout, which will be covered more closely in chapter 6.

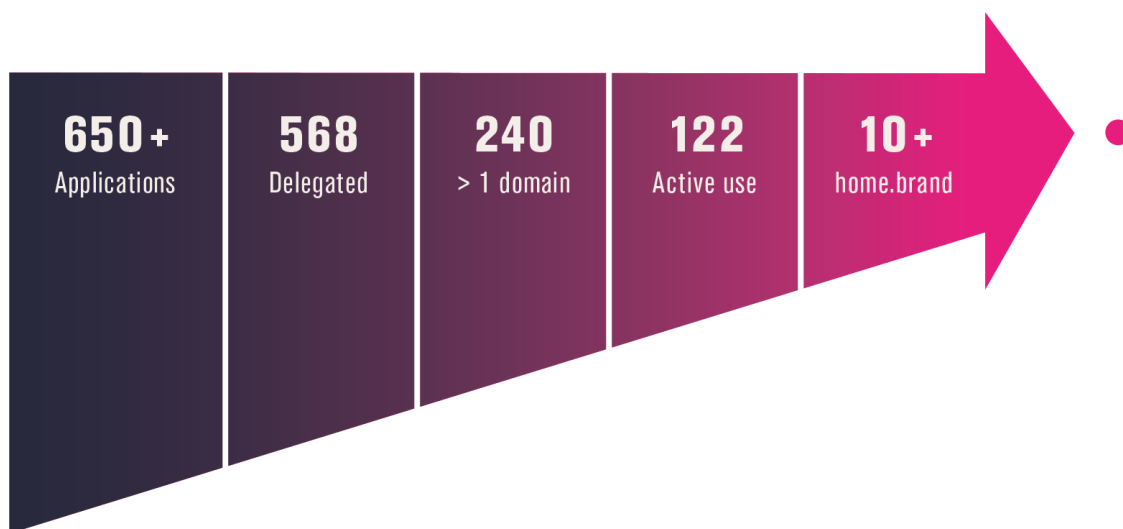


Figure 13: Number of .brands which have cleared certain stages of development as of April 2017

Some .brands, however, have stood out from the crowd and gone ahead with large-scale use of their new TLDs. At the forefront are Banco Bradesco and BNPParibas, two major banks that decided early on to migrate their entire online presence, including their home page, onto their .brands at “banco.bradesco” and “mabanque.bnpparibas” respectively. Although it’s arguably a limited measurement, we can get some idea about the popularity of these domain names from the “Alexa” ratings of domain name popularity, where these two home pages are currently competing to be the top .brand, both ranked in the high 3000’s.

Other interesting .brand users include French insurance provider Mutuelle du Mans Assurance (MMA), who is currently holding the top spot for number of domains registered on a .brand TLD. Their leadership on this front can be traced to an aggressive rollout where many of their 1864 retail locations have been allocated their own .brand site (based on a standardized template). Another .brand to watch is that of internet giant Google, which has started using their main .brand for sites like “blog.google”.

One interesting trend in .brand activity is that despite submitting more applications, American .brand owners seem to be making decidedly less use of their new TLDs than their peers in other regions. Meanwhile, European .brands are pushing ahead, registering more second-level domains and publishing more external communication aiming to educate their users about their respective .brands. Speculation in the industry seems to indicate that European companies are less attached to the commonly accepted “.com-regime” than their American peers, who are more likely to still think that “.com is king”. European companies have a history of spreading their online presence

over a variety of TLDs, including a host of country-specific ccTLDs, such as “.fr”, “.es” and “.dk”. Meanwhile, the ccTLD of the United States, “.us”, has still not made any major impact on U.S. businesses, who continue to flock to “.com”. It remains to be seen whether American companies will eventually catch up to their European peers in terms of .brand usage.

"If you look at the brands that have come far, like BNPParibas, Canon and so on, maybe they are based in a part of the world where they are not so tied to the .com and they're used to having many extensions. But in the U.S., .com is still king, and so that mindset is still a huge barrier to moving forward." – Person J

4.5.2. Defensive applications and moving forward

After reveal day, it emerged that a large majority of .brand applications had been driven mainly by fear of some other entity gaining control over their brand name on the top level, since once such an application had gone through there would be no way of ever getting the name back. This fear was escalated by the oftentimes confusing rules governing the program, the short window of time available for application, and the opacity of the process. Companies’ legal departments therefore often approached the .brand as they would any other defensive domain name registration, intending simply to protect their trademark, albeit through a process many times more complex and expensive.

As time passed and the situation gradually became clearer, it turned out that defensive registration needn’t have been such a priority for most companies. In some cases, where multiple organizations had equal claims to the same brand name, it paid off to be an early bird. However, for a majority of brands, no other actors, bad or otherwise, had applied for their names (perhaps dissuaded by the large price tag).

At the same time, other potential benefits of .brands, often focused on branding and marketing, were increasingly being discussed. The mission of many .brand owners thus became to transition the .brand from being a defensive move, primarily driven by legal and assisted by IT departments, to being a business development project focused on marketing and digital communication. How this should be done is the primary focus of Chapter 6 of this report, which presents a 6-step process for successfully implementing and creating real value from a .brand.

"I mean, most people bought their .brands for defensive reasons - they just didn't want anyone else to get it. They didn't really have a plan. But by now people are starting to think about the actual use cases for it." – Person M

4.6. .Brands from the innovation diffusion perspective

Having briefly explained the background and current situation of the .brand phenomenon, it is now interesting to compare this real-life case of an innovation to what has been written about innovations in the abstract in the literature reviewed in chapter 2.

4.6.1 Attributes of the .brand innovation

I would argue that .brands are a clear example of a “technology-push” style innovation. The new gTLD program is a technological development set in motion by ICANN without any specific consideration about the possibilities it would create for large brands. Instead, it fell to companies and domain industry insiders to identify the new possibilities afforded by this development. At the very start, there were no clear application areas for .brands, and they carried a significant amount of uncertainty and need for exploration. On the other hand, it seemed clear that there was some potential for .brands to significantly disrupt how domain names were used in business.

The *relative advantage* offered by .brands over generic TLDs is still unclear. Some in the industry see great potential advantages from using .brands, whilst others are more skeptical. The same can be said for how individuals perceive the *compatibility* of .brands with existing ideas and needs, which depends heavily on that individual’s background and perspective. .Brands are arguably not very *complex* to understand, but can certainly be difficult to understand how to use. This especially since the nature of the technology along with the slow introduction of .brands into the public eye has meant that they are still very difficult to *trial* or even *observe* in a meaningful way.

The process which by organizations had to make an adoption decision for .brands was also quite unusual. Rogers’ innovation decision model assumes a situation where the adopter has unlimited time to find out, be persuaded, and make a decision about the innovation in question. For .brands however, these stages all occurred under significant time pressure, meaning that the process could not proceed at a normal pace. This could arguably be expected to decrease the amount of positive adoption decisions, and adopters simply did not have the time to make an informed decision that they felt comfortable with.

All of these factors point to .brands being an innovation that would be fairly slow to be adopted by the target population. On the other hand, the factors mentioned are all set to improve in the future, especially as more and more companies start using their .brands. This means that uptake could potentially increase rapidly in the future, as the opportunity to apply for control of new TLDs is eventually re-opened.

4.6.2. The .brand adoption curve

Looking at Roger's diffusion of innovations curve, how far has .brand as an innovation progressed in the diffusion process? If we consider "adoption" to mean not only application for but also active use of a .brand, some companies clearly stand out as *innovators*. These are the companies who threw themselves headfirst into the .brand space and instantly moved their entire web presence over to their own .brand environment, despite possible risks and uncertain advantages. In my interviews with some of these companies, a central motive for the adoption of .brands has been a desire to be seen as "innovative" and "cutting-edge". These companies are proud to be the first in their industry or country to use a .brand on a large scale, to set the standards and explore new territory, and they communicate this to their customers and users.

"We have a vision to set the standards for our industry, so being one of the first to get into this was completely in line with that. [...] We felt that there was nothing to lose by just going for it." – Person A

Then there are the *early-adopter* style .brand users, who often start off a bit more carefully, publishing one or two sites and carefully measuring the response from their users before proceeding. These companies are arguably more concerned than the innovators with finding tangible benefits from their .brands that they can use to gain an advantage over their competitors.

The .brand applicants who have yet to publicly use their .brand, and many more who have not yet applied, are likely positioning to be part of the *early majority*. Once the .brand pioneers have worked out the best-practices for application for and implementation of a .brand through expensive trial-and-error, companies in the early majority can then use that knowledge to conduct a lower-profile .brand implementation. Increasing consumer awareness of .brands as a concept will reduce the risks and the costs for the early majority of communicating their move to .brand, and at the same time, they are still early enough to gain some advantage over those in their industries that have yet to apply.

The rest of the innovation curve, the *late majority* and *laggard* companies, did not apply for any .brand in the first round of the new gTLD program, and may indeed never get for one at all. They are currently happy with the domain names they have, and may not even be aware of the existence of .brands at all. Only if and when .brands become a common sight on the internet, and their advantages have been definitively proven by multiple successful implementations, will companies in these groups start considering getting a .brand for themselves.

Where on the .brand adoption curve a company will fall is based on many factors. As was mentioned in chapter 4.4., certain industries applied for .brands to a larger extent than others, based mostly on how well a .brand fits into the particular challenges and priorities that define the general online strategy of those industries. Aside from that, whether or not a company applied for a .brand also comes down to the efforts of individual people – both internal *innovation champions* and external *change agents*. Those companies that have gotten the furthest with their .brands have often had people enthusiastic about .brands internally as well as contact with external domain name experts, both pushing the idea of .brands and engaging decision-makers.

"Some of it is personality-driven - based on who is driving the ship at that company. A few people got very enthusiastic, and they were very persuasive, persistent, and remained in their position long enough to make it happen."

– Person M

4.7. Possibilities for future application rounds

From the very start of the new gTLD program, before the first application round had even opened, ICANN intended for subsequent rounds to follow “as expeditiously as possible”. The unexpected amount of applications in the first round meant that any subsequent round had to wait until at least a vast majority of the initial applications had been processed. Five years on from the closing of the first application window, that point has now definitely been reached, and discussions about a subsequent round have started to intensify. So, when is the next round going to happen, and what will have changed from the first time around?

To start with, there is not yet any set date for when the next round will occur. The general consensus in the community, including that of ICANN itself, seems to be that Round 2 will happen in 2020 or 2021 at the soonest, and that it could potentially be delayed even longer. Many companies which didn’t apply in Round 1 and have since seen their competitors start to experiment with new .brand domains are now pushing hard for a chance to catch up. At the same time, it is undeniably in the interest of those who already have a .brand to extend their window of potential advantage for as long as possible. ICANN itself is currently focused on completing an extensive review process of the first application round and its results, which they say will have to be completed before concrete plans for any subsequent rounds can be made.

What aspects of the application process might be changed from the first round is equally a subject of much speculation. Hopefully, lessons learned from the first round means that the application

process can be made more efficient, decreasing the time and cost of processing each application. As mentioned in chapter 4.3.2., much criticism was levelled against the initial application process making .brand applicants “jump through the hoops” without a good reason. For the next round, many companies are lobbying for a simplified “fast-track” application process for .brands and other low-risk applications, categorized as those applications where the benefit to consumers is easily proven, technical capability is guaranteed by a verified backend provider, and the only major risk is to the applicant company itself. Some are even hoping for a dedicated round for only .brand applicants, before any round of general applications. Most of these individuals also acknowledge that the chances of such an arrangement becoming reality are low, however, as it is unlikely that what could be seen as an unfair advantage to a certain group of applicants would be accepted by the domain name community. ICANN itself acknowledges that some sort of “fast track” could be a possibility, but that it is ultimately unlikely to happen.

"The next time around, there should be ways to 'fast-track' through. So if you're a brand, you tick a box: 'I'm a brand, I want Spec. 13, here's my financial commitment'. You don't need a business plan, just sign on that the budget has been approved and it will run as a cost center. As long as there are no objections, this should speed through. And if you have an accredited back-end provider, you can tick that box too, so they don't have to do repeat testing of that either. So there should be ways to shorten this all up [...] so that some will come through far quicker than others just by the fact that they don't have to go through as many stringent and in-depth checks along the way." – Person F

There is also some discussion about whether or not the format of application “rounds” really makes sense in the first place. ICANN is preliminarily evaluating whether it would make more sense to simply open up a permanent channel for applications, which are processed in roughly the same order that they come in. Such an arrangement could potentially remove some of the time pressure experienced by applicants in the first application round.

(N.B: New information about the next application round has emerged since the writing of this report, and can be found in Chapter 10: Post-script)

5. The benefits of .brands

Having gone over what .brands are and where they come from, the natural question to ask is “Well, what are they actually good for?”. .Brands appeared because of technology pushing ahead without meeting any well-defined business needs, and after an application focused only on protecting their trademarks, many .brand owners are now starting to explore what other benefits can be gained using their new asset.

5.1. Three categories of benefits

Many people in the domain name industry have their own ideas about .brand benefits which they present as lists of 3-10 items on blogs or in marketing material. Of course, these lists are a great place to start approaching this question, and the background research for this chapter builds on dozens upon dozens of them, but none of the material I have found seem to capture quite all of the benefits, nor does it put them into a larger context. They also often come across as tad optimistic, often leaving out potential problems or alternative ways of reaching the same results.

This report therefore attempts to illuminate the bigger picture of .brand benefits through a comprehensive and generalized summary of the potential benefits companies can hope to achieve through use of their .brands. The benefits most often mentioned by both domain name experts and .brand applicants have been collected into three overarching categories, based on some common themes, attributes and requirements underlying each idea. These categories are presented in Figure 14 below.



Figure 14: Categorization of .brand benefits into 3 areas

Through this categorization, I hope to capture every major area in which .brands are likely to impact businesses in the near future. The three categories are ordered based on the time horizon within which they are expected to find relevancy. Category 1 benefits could in theory show results within weeks, whilst Category 2 benefits might require months or years of investment before paying off, and Category 3 benefits are in many ways still uncertain to materialize at all.

5.2. Category 1 – Powerful communication

The first and most straightforward benefit a company can gain from use of a .brand comes straight from what the innovation of .brand actually is – a new type of domain name with the brand name itself front and center. This type of domain name could help simplify marketing messages and create more simple and immediate connections between companies and their customers and stakeholders.

5.2.1. The background

As businesses have grown their internet presence over the last decade, so have their home-pages grown from being fairly simple repositories of basic company information to being massive, sprawling creations with thousands or millions of sub-pages, e-commerce platforms, careers portals, and investor reports. Companies have so much information that they want to get across, but only one point of entry to all of it – their home page (usually hosted on “brand.com”).

The user, however, is usually only interested in one thing, be it a specific product, an event, a career page or an annual report, and do not want to stumble around a giant home page for minutes trying to find it. As mentioned in Chapter 2.2.2., in the face of increasingly confusing, information-rich and crowded online spaces, perceived ease-of-use has become a major factor determining the quality of online brand experiences (Morgan-Thomas & Veloutsou, 2013).

“You know, companies spend millions of dollars on a marketing campaign for some new product or something, only for the call to action to be to “come visit our website”. The customer will probably get lost in a sea of annual reports and environmental initiatives, get bored and give up looking. That’s just a massive waste of money.” – Person Q

For customers, the obvious solution has been to give up on finding their way from a home-page and instead take the shortcut via a search engine. The advanced algorithms and web crawlers of

services like google search promptly find what the user was looking for and directs them straight there with a single click. Problem solved!

But whilst search engines may be a good solution for the end user, they are often less than ideal for companies trying to reach those users. For a start, search engines make much of their money through putting paid advertisements in the search results, meaning that placing as the top-ranking result for a specific search query can often come at a significant cost for every click. This means that a customer originally looking to purchase a certain product from Company A may end up being redirected to a similar product sold by Company B, which has a more aggressive advertising and SEO strategy. To make sure not to lose any business, Company A now also has to spend money on advertising, effectively cutting the search engine in for a percentage of any of its online business, and on top of that, the search engine often keeps a lot of the potentially valuable user data generated throughout the transaction.

As a result, some companies have recently been moving away from their home page as the place to communicate with customers, instead creating focused “micro-sites” focused on a single mission or piece of information. Often consisting on just one or a few pages, a micro site is a separate entity with its own identity which can much easier be communicated to users and customers, making it as quick and convenient as possible for them to achieve their goals for the day. The more simple and useful a brand can make itself to its users, the more satisfied those users will be with the brand, and the more likely they will be to revisit it (Morgan-Thomas & Veloutsou, 2013). And the easier it is for users to immediately find what they are looking for in the brand space, the more likely they are to go directly there, foregoing the use of a search engine.

“The web should be much more focused on the task that people actually want to do. You don’t want to have one big site, but instead a number of more focused sites. [...] Especially in China, there’s this trend towards very focused microsites, with everything on one page. The web is evolving towards this much thinner type of site, which is a total change in paradigm, and I think that that’s a great thing for brands.” – Person G

5.2.2. The idea

So how does .brand fit into all of this? Well, any type of digital communication needs a good, catchy name for customers to remember, and .brand URLs represent the possibility to create the shortest, most meaningful and memorable domain names for marketing campaigns and microsites

yet. Not only does .brand domains automatically mean that a customer gets an additional brand impression every time they are exposed to or interact with a marketing message or website, maximizing brand salience, but every single second-level domain possible is immediately available under the .brand TLD.

Of course, the difference between a URL like “*burgerjoint.com/bigburger*” and “*bigburger.burgerjoint*” may not be immediately obvious, but every additional letter and special character counts when someone is trying to memorize a domain name they glanced at on a billboard at the side of the motorway, or glimpsed for a split second at the end of a TV spot. .Brand domains also have the potential to be more semantically meaningful than a name with “com” interjected in the middle. Some observers even predict that, based on the spread of .brand domains, the “dot” (.) will be the next “hashtag” (#) or “at” (@) – a common piece of punctuation given new meaning through repeated use in online communication.

"Everything is about getting the user to where they need to go in the quickest possible time. So I think that the way that people will start to explore structuring their domain names will be focused on users getting to what information they need as quickly as possible. Once you start being able to separate that whole website out into smaller pieces, [users] will just go straight to wherever they want to go. [...] It may not be a huge difference to the end user, but it's always important to get users to the right place as quickly as possible, because hopefully then you can hopefully get them to do the next bit of action with that brand, whether that's buying something, finding information or doing something else."
– Person F

Domain names that are short, descriptive, and easy to remember are also optimal for sharing on social media, where both available space and attention-spans are limited. Indeed, a .brand can effectively serve as a better version of a link-shortening service, often used for just that purpose. A case study by Bit.ly (Bitly, 2017) found that, aside from driving brand impressions and visibility, short domain names incorporating a brand name also had up to 34% higher click-through rates compared to unbranded links. This could be interpreted as users having a more positive and engaged reaction to links that very clearly represent a brand name with which they have positive associations and responses.



With .brand, every marketing campaign, product, location or microsite can be given its own identity, completely separate from the home page yet clearly connected to the brand. Since every possible domain name on the .brand is available and under the company's control, there is never any worry about anyone else stealing the best name for a new product or idea before it is ready to be launched - a problem which can otherwise become very expensive to resolve. And when the domain has served its purpose, its content can easily be updated, or traffic to the domain can be redirected to a relevant new location. If apple decided to register "ipad.apple", for example, and users were trained to go to that location whenever they were thinking of the iPad brand, apple could redirect them to relevant campaigns, localized pages, store locations, or new product sites as they saw fit at the moment, reflecting the current situation and needs of the company.

For early adopters, there is also another potential benefit from using .brands as part of a marketing initiative. In using a new technology that many customers will not have seen before, a brand associates itself with values of innovativeness and the cutting-edge. As mentioned in chapter 2.2.2., both how a brand communicates in marketing and the environment in which it presents itself, including its digital environment, are important factors in building a strong brand image. As part of a broader communication effort, a .brand can be very effective in building a brand image evoking feelings and imagery of high-tech, next generation technology. A good example of this can be seen in one of the very first microsites pioneering the use of .brands, "*next100.bmw*", which communicates a sense of the future in every aspect from site design to content and imagery. Here,

the .brand domain name, as the entry point through which users reach the site, also contributes to the futuristic message of the site.

There has been a lot of discussion on the possible impacts of using .brand domains on Search Engine Optimization (SEO), the practice of trying to get pages into prominent positions in search engine results in effort to attract user traffic from those search engines. Whilst there is evidence pointing in both directions, the general picture emerging from early .brand implementations seems to be positive (see for example the *Dot Brand SEO Report* from DotBrandObservatory²⁶). As .brand domains become more common and established, they are likely to have an increasingly positive effect on page ranking in search engines as long as they are used in the right way. The main objective of a search engine is to deliver the best, most relevant result possible to its users, so if a company can teach that search engine that content hosted on their .brand TLD is consistently of high quality, safe, and useful to searchers, the algorithm will eventually learn to send more users on to both established and newly created domains on that TLD.

In the longer term, making the lives of users easier with .brand domains pays off in more ways than just increasing conversion rates and marketing efficiency. If domains used in communication are consistent, customers will eventually learn the pattern, and start looking for other pages on the .brand TLD following the same standard. In this way, a customer looking for a new product from a certain brand will instinctively know to go to “productname.brand” for more information, meaning they bypass having to use a search engine and instead establish a closer relationship with the brand itself.

“Marketing with a .brand call-to-action is good when you do it once, but amazing when you do it a hundred times since customers start learning the pattern. [...] In the long term, the goal is to get people off of Google, although that won’t happen overnight” – Person Q

The possibility to re-establish “direct navigation”, where users directly type in the domain name of the page they want to visit, as the default way in which users navigate the internet when looking for brand information and products is arguably one of the greatest promises of .brands, since it has the potential to cut out the search engine as the middle man from many online brand interactions, forging a stronger, more personal relationship with the brand and securing access to more data on customer journeys and interactions. It can be argued that increasing direct

²⁶ DotBrandObservatory. (2016). Dot Brand SEO Report Branded Search Results.

navigation is the natural end goal of using .brand domains in communications and marketing, which leads naturally into the benefits of category 2 – creating a clearly delineated online space for the brand.

5.2.3. The requirements

Of course, benefits from .brands will not materialize out of thin air. As mentioned in chapter 4, one of the major difficulties faced by .brand applicants after being delegated their .brand is to transfer the .brand project from being mainly a legal challenge into being a project focused on marketing and digital aspects of the business. The realization of Category 1 benefits in particular require the involvement of marketing people, as it entails major updates to strategies and procedures for how to structure domain names, present online content, and work with SEO.

"Marketing people need to be a lot more involved in this right out of the box, and for them not to know about [.brands] is really not a good thing. So I've been talking to CMO's and brand managers, and been trying to help them understand what the eventual benefits of this will be to them." – Person M

Using .brands in marketing campaigns will only work to increase engagement as long as users actually understand that what's presented to them is indeed a domain name. Before .brand domains become more established in the public consciousness, domains using the .brand extension probably need clearly established as being domain names by adding either "www.", some widely understood symbol such as a globe or mouse pointer, or a direct instruction to "go to..." or "visit our site at...". Potential misunderstandings also mean that it's probably a good idea to register the matching domain name for other common TLDs if possible (registering "stuff.brand.com" when marketing "stuff.brand" for example) to minimize traffic lost from users still looking for the company on ".com".

Once users have started learning to find content using direct navigation, it becomes increasingly important to reward their attempts by making sure they get where they want to go. This means predicting what users might be looking for and preemptively registering potentially relevant second-level domains on the .brand to match. Of course, it will be impossible to predict everything that users might type in, which is why it's also important to monitor what domains users are unsuccessfully trying to access – something which is only possible if you control your own TLD infrastructure. Noticing many users looking for "mothersday.brand" in the weeks leading up to the

holiday, for example, a responsive .brand owner would create an appropriate page on that domain, and could consider creating a marketing campaign to match.

The best solution would of course be to implement something like an “internal search engine” on the .brand, with users looking for a non-existent site such as “abcxyz.brand” being automatically redirected to a page displaying other locations on the .brand that could potentially be relevant to “abcxyz”. At the moment, however, this sort of “wildcarding” of a TLD (capturing any traffic to a not-yet-registered second-level domain on that TLD) seems to be prohibited by the registry agreement every .brand owner has signed with ICANN. This prohibition is to a large extent a result of previous misuse of wildcarding on generic TLDs by earlier TLD owners, in a way that was considered both anticompetitive and destabilizing to internet infrastructure. With single-registrant TLDs like .brands now coming to the fore, it remains to be seen whether these prohibitions will be amended.

As long as the domain name takes users where they want to go as quickly as possible, it matters less whether the content in question is actually hosted on that domain. Initially, it may make more sense to create .brand domains as so called “Vanity URLs” which are optimized for use in communication, but in reality redirect traffic to some location hosted on the main homepage. Hosting content in one central location could potentially create benefits for search engine page-rankings, as it makes sure all links eventually direct traffic to the same main page. This also means that migrating the whole online presence of the brand to the .brand TLD is not necessary, at least to start with. Such a migration could potentially prove both expensive and risky, and might be better postponed to a later stage of .brand implementation.

"People don't really care what domains things are hosted on, they just want to find the easiest way to get there. That's why link shortening services have become so important." – Person Q

5.2.4. Who is it relevant for?

Having powerful marketing messaging is obviously a good thing for any company, but using .branded domain names are still more relevant more some than for others. Generally, the more money a company spends on marketing, and the more of the company’s business relies on online interactions, the more relevant .brand domains are going to be.

On one hand, pure B2B companies are not likely to find huge advantages in using .branded URLs for marketing purposes (though they could find other good uses for a .brand, as will be seen),

whilst companies in media or retail businesses would probably find them more impactful (think “gameofthrones.hbo”, “londonnews.bbc”, “autumncollection.zara” or “specialoffers.target”).

5.2.5. The alternatives

Having a .brand is not a requirement for having impactful marketing, convenient microsites or memorable Vanity URLs. These are all things that companies are already doing today, in many cases very successfully. Possibilities for good naming schemes will only expand given the massive increase in available generic TLDs resulting from the new gTLD program. The domain name “lostin.music” is probably just as memorable as “lostinmusic.sony”, albeit without the benefit of including the brand name, and without the long-term hope of teaching users to use direct navigation.

Of course, using generic TLDs means options are much more limited. Even with almost 2000 gTLDs available, there is no guarantee of finding any one domain which is perfectly relevant to a given message. And if one is found, chances are it will already be taken or come with a large price tag. Having a .brand requires a large initial investment – the application fee is almost \$200,000, and the limited information available seems to indicate that yearly operational costs are somewhere around the same amount. But since every domain on the TLD, no matter how short or meaningful, will cost just one or two dollars to register (mostly in operational fees to ICANN and the chosen back-end provider), that initial investment is gradually worked back with every domain registered.

In the end, using .brands for marketing turns out to be a numbers’ game. But with marketing campaigns for large brands routinely costing millions of dollars, every additional percentage of user engagement that can be extracted from that investment is likely worth considering.

5.3. Category 2 – A trusted online neighborhood

The second category of benefits from .brand is slightly more complex, and involves extending the emotions, associations and trust the brand evokes in customers into the online space by using the .brand to clearly delineate where the brand lives on the internet.

5.3.1 The background

Alongside the growth of e-commerce during the last decade, online sales of counterfeit goods and online fraud have recently seen massive increases. In 2016, the OECD estimated sales of counterfeit and pirated goods to be worth nearly half a trillion dollars per year, representing 2.5%

of all global imports.²⁷ This growth is heavily driven by online commerce, where sale of counterfeit goods is increasing by 20% annually (Elings, Keith, & Wukoson, 2013) .

Big brands on average lose around 10% of top-line revenues to counterfeits (Elings, Keith, & Wukoson, 2013), and this number does not include the large sums invested trying to combat the problem or the loss of brand reputation which can result from customers having bad experiences on fake sites purporting to represent the brand (Yellow Brand Protection, 2017). The cost to consumers is potentially even higher. More than 95% of people buying counterfeit goods online do so unintentionally (Business Wire, 2014), yet many are exposed to fraud, bad quality goods, and outright physical danger, especially when the goods in question are pharmaceuticals or replacement machine and electronics parts (OECD, 2016). At the same time, counterfeit goods are often produced in poor working conditions, using methods with heavy environmental impacts (Yellow Brand Protection, 2017), and profits oftentimes finance other forms of organized crime and immoral activities (OECD, 2016).

"Pirated goods are not only a problem in and of themselves, but they are also related to child labor, prostitution... Not only are pirate copies of worse quality, but they directly sponsor these kinds of activities. This is something we need to create awareness around, and as e-commerce grows, this becomes more and more important. Almost every industry has problems with this." – Person C

At the same time, online fraud is also increasing rapidly. Business Insider reported 27 fraud attacks per 1.000 e-commerce transactions in 2015, with 5% of all online transactions by value being identified as at risk (Meola, 2016). One recent study estimated the cost of fraud to online retailers at 7.6% of total revenues (Berthene, 2016)

5.3.2. The idea

With a .brand top domain, a company can create a presence on the web that is definitively and inimitably theirs. No other company or actor can have a website or email address ending in their .brand unless they have been specifically authorized to, and even then, that authorization can be revoked at the first sign of any trouble. This is the power of the .brand in creating an authoritative and trusted online space – a company's own .brand neighborhood.

²⁷ OECD. (2016, April 18). Global trade in fake good worth nearly half a trillion dollars a year - OECD & EUIPO. Retrieved from OECD.org: <http://www.oecd.org/industry/global-trade-in-fake-goods-worth-nearly-half-a-trillion-dollars-a-year.htm>

A customer that navigates onto a website ending in the .brand can be certain that any information presented on that site is genuine and endorsed by the company, and that any interaction or transaction they engage in is guaranteed to be safe. Receiving an email from “josh@sales.brand”, any stakeholder can be sure that the source is genuine. And since a company that controls their own TLD also has unprecedented control over the underlying infrastructure, they can make sure to implement the best security protocols and strategies across their whole TLD, enhancing security even further.

“A lot of the time when you launch a new project or system, you want a name and you just can’t get it. So we’re trying to do stuff with dashes and hyphens... But your end users end up not knowing what it is and they don’t know if it’s real or not! So from the very beginning, I went to our CIO, and I focused on the trust part – not only the actual security of the platforms, but also on gaining the trust of the end users.” – Person K

Companies spend millions of dollars imbuing their brand names with certain associations, feelings and qualities. A customer walking into an apple store instantly recognizes and trusts that brand image, and with a .brand like “.apple”, that same identity can be fully extended into the online world. Furthermore, resellers and other affiliates can also be set up with a .brand address, signifying their belonging to the brand ecosystem, and helping brands ensure that their branding and messaging stays unified and consistent. Customers of a certain reseller can be sure that they’re getting the real thing if that reseller is

“certified” through their very domain name. In this way, the brand name can be infused with feelings of trust and authenticity, helping it differentiate itself from competitors and creating positive associations with seeing the brand name online. All of these things help a company build brand equity, as described in Chapter 2.2.1. This becomes even more important when considering that trust is the other major factor influencing the quality of online brand experiences, along with ease-of-use.



“As a pharmaceutical company, we wanted people to be able to be sure that everything that comes from [our .brand] is safe, secure, and comes from us as a company. Purely from a patient safety perspective. [...] The information on our domain is correct, we own it and know what is communicated on it.” – Person I

Customers themselves can even be engaged into the brand space through communities, blogs, or other interactive elements. Some companies may even want to give every customer their own personalized space on “customername.brand”. Creating this type of dedicated brand space could also help a brand build a sense of community, loyalty and engagement, further improving brand equity.

“Whatever we do in the [internet] space, we need to make sure that our audience understands what it is and what to expect from it. It really comes down to trust - so it made sense to be on the top level since you could have so much more control, both from an audience communication perspective and from a back-end perspective. We have a lot of people ripping off our content in different ways all over the world, so that was definitely one of the key drivers.” – Person L

Ensuring that your brand lives in its own, safe and clearly delineated .brand neighborhood has the potential to decrease costs and revenue losses from fraud and counterfeit goods, make users feel safer and reduce the negative branding impact of bad-faith online imitators. It can also help the company build brand equity by infusing their brand name with a feeling of trust and community. Finally, improved trust can also help improve satisfaction and retention, as mentioned in Chapter 2.2.

5.3.3. The requirements

Moving a company’s entire web presence over to a new TLD is potentially a lot more extensive of a project than implementing some short, nice-looking URLs into its marketing campaigns. The first major hurdle to creating a .brand neighborhood is having to commit to a full migration off your main online assets, often including the home page, onto the new TLD. This is of course easier said than done. Most companies have spent years of effort and millions of dollars trying to drive traffic to their “.com” homepage, and are likely worrying about the impact that moving over to a .brand will have on their SEO rankings, traffic numbers, and stability. Still, there are plenty of companies that *have* committed to a full .brand migration, including Sandvik, Canon, and Barclays bank, now all available at their version of a “home.brand”. As mentioned in Chapter 5.2.2., the use of a .brand

generally does not seem to have any major impact on SEO rankings, and companies that have made the transition have generally been happy with how quickly they were able to get their customers on board and things up and running.

"Those that have moved into this space and have made a significant impact are the likes of some of the banks. Because what they've done is transition millions of users quite easily into using a new gTLD. The users don't really care about it, but they know that that's where they're getting their service from now is from 'mabanque.bnpparibas' for example." – Person F

Gaining Category 2 benefits is also completely dependent on customers understanding the meaning and value of a .brand domain. If users don't know to look for the .brand in their browser's address bar or the sender field of their email client, most of the potential security benefits of the .brand will fall flat. A full migration into the .brand space therefore needs to be coordinated with a serious effort to inform and educate users about the purpose and significance of that move. Indeed, some .brand owners have decided to coordinate their migration with a full-scale homepage redesign, and incorporated the change of address into a larger communication package.

"We had a big project when [our .brand] was launched, with the launch of the new website and customer portal, and it allowed us to raise awareness of [our .brand]. There was a lot of communication during the relaunch of the website, both on the website and in our locations. [...] The salesforce was also involved with the project, so they were there to explain to the customers what it was and how it will work." – Person P

Of course, as .brand as a concept becomes more widespread and commonly understood by the general public, the difficulty of convincing users about its usefulness will decrease. It's not unthinkable that in the future, the internet might become so saturated with .brands that a major brand *not* residing on its own private TLD is a source of suspicion.

Finally, expanding the .brand neighborhood to also include affiliate and resellers might require a communication campaign of its own. Some business partners are likely loath to give up some part of their own independence and identity, meaning the benefits for resellers of being on the .brand TLD will need to be communicated even more convincingly than those for the end users.

Moving the company presence to the .brand doesn't mean that other TLDs should be completely abandoned, of course. Through habit, old marketing materials and un-updated links, generic TLD

addresses are likely to retain some of their traffic numbers for the foreseeable future. This also means that defensive domain portfolios will have to stick around for a while longer. Domain names on generic TLDs can simply be redirected to the relevant new domain, potentially also guiding the user there via an informational page educating the user about the new .brand strategy to avoid repeat visits.

5.3.4. Who is it relevant for?

The high potential value of online trust and security in certain industries goes a long way to explaining some of the patterns in .brand application and adoption that were presented in Chapter 4.4. Many of the companies that have come the furthest in large-scale implementation of .brands are financial institutions, clearly indicating the priority they put on users' safety in interacting with them on the internet. It also explains why so many organizations that do not rely heavily on marketing, such as pharmaceutical and pure business-to-business companies, are still rushing to create their own .brand space in effort to counteract some of the problems they are currently having with counterfeit goods.

5.3.5. The alternatives

There are currently no other ways than a .brand to create a proprietary space on the internet, but there are still some alternatives for companies that want to enhance their online security and trust. A good example coming out of the new gTLD program is the TLD “.bank”. In contrast to most generic TLDs, gaining access to a domain on the .bank TLD requires a registrant to go through a multi-step vetting process to establish their authenticity and good security practices. If fTLD Registry Services, the operator of the .bank TLD, can keep standards high whilst gradually building up consumer recognition, having a “.bank” domain could potentially grant a smaller bank the same trust afforded larger banks using .brands. As of now, most industries don't have any equivalent TLDs to use instead of a .brand, but depending on the spread and success of the “.bank” TLD, more such “members-only TLDs” may appear in future new gTLD rounds.

5.4. Category 3 - Controlling the infrastructure

The last type of benefit from .brands comes from the unprecedented control it affords a company over the infrastructure underlying their online presence on the very base level of the domain name system. Previously impossible, this level of control could potentially grant plentiful opportunities for improvements and innovations in the internet space.

5.4.1. The background

Even as the internet has grown increasingly important to many companies in the last decades, the channel through which they gain access to it has stayed relatively the same. A company, just like anyone else, buys the right to put their content on a second-level domain from a domain name registrar. The registrar then gets the registry provider for the relevant TLD to add an entry for the domain in the registry, after which the website can be accessed by any internet user using a browser.

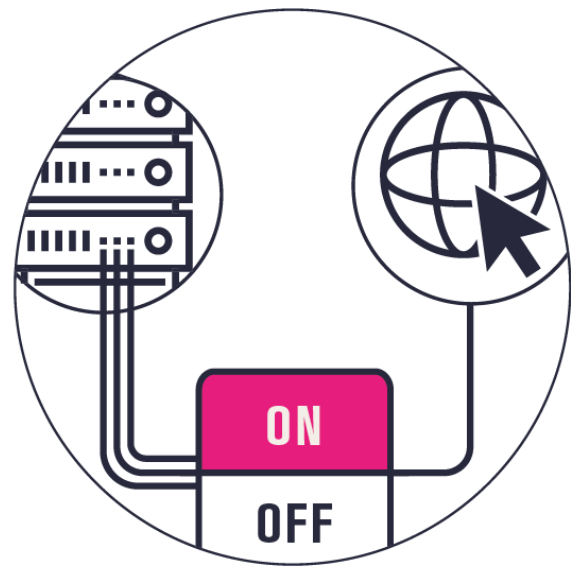
Since the business models of domain name registrars and registry providers have stayed basically the same since they were first created, the way that the DNS as a technology has been used has also been fairly static. The DNS is used for websites, email, and a few other applications, but roughly speaking, no truly innovative uses of the DNS have come about in quite some time. But with .brand offering companies the ability to control their own TLD, that status quo could potentially soon be changing. With completely different business models and priorities from those of classical registries, big brands could potentially find plenty of novel uses for the DNS technology.

"Previously [the DNS] has only been used for selling second-level domains to registrants. But when you have that as your own piece of infrastructure to manage, and you can lift up the bonnet and see what's inside the engine... Can we tweak it? Can we put superchargers on it? Is it possible to do anything differently with the DNS?" – Person F

5.4.2. The idea

Since .brands are such a new idea, what uses they could be put to on an infrastructure basis is still mostly a matter of speculation amongst consultants, registry providers, and other domain industry insiders. One major idea is that customer data can be tracked and captured in a completely new way on a proprietary TLD. Since every interaction with the brand happens within one, closed environment, customer journeys can be traced from first intent, across product pages and different .branded resellers, through transaction and into possible future interactions. Traffic

patterns on the entire TLD could be analyzed together, including that for domains that are not even registered. The data could then be used to create better, more streamlined and personalized user experiences, or to more accurately segment the user base and create effective marketing campaigns. Data on users' movements and habits becomes more valuable the more of it is generated and the better algorithms are developed to analyze it, which is why more and more major companies are rebranding themselves as "Data Firms", and why The Economist recently called Data "The World's Most Valuable Resource".²⁸



"The data is one of the things that will be coming out as a benefit. So [companies] can see who is trying to come in to the registry, what terms they are using, and they will be able to quickly refine that and just say 'Ok, there's a whole bunch of these users doing a typo for some reason, but we don't know why', and then finding a proper response to that situation" – Person F

Another idea is that ownership of the infrastructure creates new possibilities for technology tweaks such as loading time optimization. With loading times being a major factor in website conversion rates – and especially with the rise of mobile browsing, where users expect the same loading times as on their desktop but with radically slower connection speeds and hardware - every second that can be shaved off the time it takes a user to load a page can make a major difference. One recent study estimated that just a one second increase in page loading time could decrease page views by 11% and conversion and revenues by 7% (Padychova, 2017), and another found that 40% of users abandon a site that takes more than 3 seconds to load (Work, 2017). These numbers makes even more sense if the issue is compounded on page after page as the user is browsing around the site looking for something to buy.

²⁸ The Economist. (2017, May 6). The world's most valuable resource is no longer oil, but data. The Economist.

In the grand scheme of things, what the benefits of controlling the infrastructure behind a .brand TLD will actually be is still impossible to know for sure. As the IT engineering teams of major fortune 500 companies go to work on their companies' new internet backend with completely new potential uses in mind, who knows what innovations will come out of their tinkering. These innovations do not even necessarily be visible to end customers - some of the uses speculated about in the domain industry involve things like creating entirely new communications protocols, B2B platforms, or massive corporate databases. Even more interesting possibilities emerge when considering the interaction of proprietary TLDs with other emerging internet-based innovations. How can a .brand be used to complement blockchain developments, for example, and what benefits can be gained from having access to an infinite supply of domain names when building a system for Internet of Things applications?

"Connectivity between TLDs, so .brand to .brand, might create some more secure channel opportunities, more transactional opportunities, which can replace old and defunct processes that have been used in the past. [...] This is all hypothetical, but this is where, as companies adopt and use their .brands, they'll start to have their IT folk, DNS folk, marketing folk, thinking about these things and just kicking the tires a little bit." – Person F

None of these developments are certain to actually occur. But on the other hand, this category of benefits is the only one that could feasibly provide a make-or-break advantage for a company. If a massively cost-saving or business-model-enhancing innovation is developed which is fundamentally built on having proprietary access to top-level DNS infrastructure, that advantage could potentially be impossible for competitors to catch up to quickly, as lead-times for getting a .brand are currently counted in years. As such, investment in a .brand is seen by some companies as "futureproofing" – ensuring they are ready to tackle whatever developments the future will throw at them.

"For the last few years, we're really been looking at, globally, the opportunities that the internet brings for us. By having a top-level domain name, you are able to leverage that in different ways. And to be honest with you, we don't really know even now what all of these ways are. When we looked at it a few years ago and saw the opportunity to acquire [a .brand], we said 'we've got to be one of the first in that space', but how exactly it will now be rolled out is still an open question." – Person L

5.4.3. The requirements

Simply owning a .brand does not immediately convey any benefits to companies that are not also adept at exploiting its advantages. A company without sufficient competence in collecting, analyzing and using data will not find much use for the additional data collection capabilities potentially afforded by a .brand, in the same way as those with no experience in optimizing load times probably have a lot of cheaper wins to work on before they need to make the \$185.000 investment to shave off those last few milliseconds.

When it comes to other, more radical innovations, there is a need for companies to allow their engineers time to play with the new technology. As explored in the Chapter 2.3., re-invention of an innovation to better fit the needs and structures of the company has positive effects in an adoption and implementation process, and since .brands are a heavily technology-push based innovation with few obvious market applications, there is a need to allow trial-and-error experimentation with the technology if it is to reach its full potential.

There is a chance that ideas that are perceived as too radical or uncertain may not be well received by the wider community. The DNS is a system based on many independent parties collectively deciding on technology standards and protocols for how things are done, and with decades of legacy systems based on these assumptions, it might be easier said than done to make radical changes to the DNS on the top level. Internet governance is a careful and deliberate process, and with the agreement signed for control over a TLD weighing in at 100+ pages, innovators are sure to run into many clauses and prohibitions that could potentially stand in the way of truly radical experimentation. On the other hand, the stated purpose of the entire new gTLD program was to *“enhance innovation, competition and consumer choice”*, meaning that if an innovation can be proven to promote these values, ICANN and its surrounding community will hopefully try their best to accommodate it.

5.4.4. Who is it relevant for?

The potential for further innovation and desire to “futureproof” was espoused especially by one type of company in my research – Media companies. The media industry has been the subject of much discussion and reinvention over the last few years, with more and more content delivery moving from legacy platforms, live TV and newspapers into the online space. In such a dynamic environment, there is no telling what the impact of .brands may be, but in any case, many companies found it a worthwhile investment to get their own simply to be well prepared.

Although I have not talked to any of them in the course of this study, one can speculate that control over the infrastructure was a major motivating factor behind the large investments made by many online and technology companies into .brands and new gTLDs in general. Between them, Google and Amazon applied for over 175 new gTLDs, including a host of relevant .brands, and it seems likely that some major innovations building on proprietary TLD technology will emerge from one of these digital giants sooner rather than later.

5.4.5. The alternatives

When it comes to owning infrastructure on the top level of the internet, there really are not any alternatives to a .brand. If a truly groundbreaking innovation happens, and companies without their own .brand are left at a large competitive disadvantage, other ways to get access to the top level are likely to appear. This could either happen if disadvantaged companies pressure ICANN into creating a new solution for proprietary TLDs, or from business deals with existing registry providers and TLD owners. A large competitive advantage based on a .brand innovation is therefore unlikely to be permanent, but even the chance to create a temporary advantage over the competition makes for a tempting prize for early .brand innovators.

5.5. Wrapping up

As mentioned in chapter 5.1, the three categories in this subdivision are based on how immediate and proven the benefits in each category are. The branded URLs of Category 1 are already being experimented by a whole host of companies, and the benefits they convey are fairly immediate. Full migrations into the .brand space, including the creation of pages for individual sales locations, resellers and user communities, are currently under way for some advanced .brand users, but the real benefits to be had from such a move are still not entirely clear, and there is still a lot of trial and error to be worked through in this area. Finally, I have yet to be made aware of any company looking for Category 3 infrastructure-level benefits from their .brands. Of course, this doesn't mean that development is not occurring, just that if it is, it is happening behind closed doors, and it will be very interesting to follow how the field develops and what new ideas emerge over the coming years.

6. Breaking the barriers to .brands

Chapter 4.5. discussed how a majority of .brand applicants have not yet made much active use of their investment, even though there are a whole host of potential benefits to be gained, as explored in Chapter 5. This final chapter of the report will explore some of the reasons for why many companies seem so hesitant to use their .brands. It then also presents a method for .brand implementation that companies can hopefully use to overcome some of these barriers, drawing on the theory in innovation diffusion and change management explored in Chapters 2.3. and 2.4.

6.1. Barriers to .brand implementation

Throughout my discussions with companies that had implemented, were looking to implement, or were helping others to implement .brands, numerous different ideas were brought up as potential explanations for why .brand implementation had proven more difficult and time-consuming than it may have seemed at first glance. In this chapter, I have arranged these aspects into three main sources of problems – the lack of a clear plan for the .brand, the lack of clear responsibility for the .brand, and the newness of the technology of .brands.

6.1.1. The lack of a plan for the .brand

As mentioned in chapter 4.5, a vast majority of .brand applications were driven by a desire to defend the brand name from being occupied by another actor on the top level, since it would then potentially be impossible to ever gain back control over it. In combination with the short time period available for applications and the large uncertainties involved early on in the application process, this meant that many businesses did not have a proper project plan or business case in place for what to do with the .brand once they had gained control over it.

This problem was made worse by the long time period which often transpired between application and delegation. Applications were sent in during early 2012, but delegation didn't happen until two to five years later. At this point, not only had the .brand project fallen out of focus in many organizations, replaced in managers' minds with more immediate, near-term concerns, but many of the people originally involved with the .brand application as project leaders or key management sponsors had moved on to new positions or even new companies. This left new people in charge of the .brand project who barely knew that the technology existed. One back-end provider interviewee told stories of having to explain to a client why they had applied for a .brand in the first place, since everyone involved in the application had since disappeared.

“We’re at a disadvantage because the people that were part of that application process years ago are not in those positions anymore, they’ve all moved on. I’ve only been involved with [the .brand] for about a year, so I only have some second-hand knowledge about what went on back then.” - Person J

The lack of a plan combined with attrition in key personnel has created many cases where the .brand asset is left dormant on the shelf, and where all the momentum built up by an early application is now wasting away. Often, the legal and IT people who drove the actual application find it difficult to hand the project over to communications or marketing departments, which are in most cases in a better position to drive implementation. This in large part because there is no project plan to guide a handoff of the project, and no business case with information about what was meant to be gained from the .brand in the first place.

"The hiccup here is the length of time, so most people have moved on, switched roles. Those that were sponsoring it typically only last a couple of years in their roles anyway, whether it's the CMO, CTO, whatever it was... They're gone. And the next guy is saying 'This is costing me how much? Why? What is it delivering? Is it generating any revenue? No? Then sorry, but it's going off my budget.'" – Person F

6.1.2. The lack of clear responsibility

One of the key attributes defining .brands (and indeed domain names in general) is how they simultaneously interact with the work of Legal, IT, Communications and Marketing departments. Implementing a .brand therefore needs these departments to work closely together over a long period of time. Such coordination and cooperation can sometimes be difficult to achieve, especially since it is often hard to define what department carries the ultimate responsibility for the project. For the legal department, the main objective was from the very beginning to put the .brand name out of reach for bad actors, something which is has now been achieved. For IT departments, implementing a .brand would often mean rebuilding several well-functioning key systems from the ground up, meaning there are few incentives to take charge of the issue. And, as previously mentioned, many marketing and communications departments still have low awareness about the .brand and its potential benefits.

“[Lack of knowledge about .brands] is a problem even within companies, internally, between different departments. You know - the marketing

department doesn't know much about [.brands] and are unaware of how to use them, even though some IT guys want to, or vice versa... Even in these big companies, it's very hard to do things because they are not talking to each other. And you can understand why it's slow, if their website works well, it's a big change sometimes, so people are wary and want to be sure it works first."
– Person G

Since the benefits of a .brand are still uncertain, often long-term, difficult to relate directly to any bottom-line results, and often do not clearly fall within the boundaries of any one department, there is a question of who should take the risk of championing the project in front of top management. Even if the project does eventually get off the ground, there is the further problem of whose budget the money for it should come from. The attrition of key personnel mentioned above also further compounds this issue, as the people responsible for the application disappear without handing over to a new project driver.

6.1.3. The newness of the technology

Finally, many uncertainties related to the new and untested nature of the .brand technology hinder adoption in companies.

A major issue with .brands, and indeed the new gTLD program as a whole, is the problem of reaching “universal acceptance”. This is a major challenge for the entire domain industry, and relates to the difficulty in adapting the countless IT systems interacting with the DNS to the developing technology of new TLDs. One example mentioned by several interviewees is how many email clients are coded in a way that expects top-level domains to only consist of either two or three characters, since all of the original TLDs followed this pattern. Since many new TLDs (and most .brands) have more than three characters, these old software systems will not function properly when new TLDs are used in email addresses. Worries about compatibility with legacy software systems has so far meant that adoption of .branded email-addresses has been very slow, and can definitely have had an impact the adoption of .brands as a whole.

"I think the universal acceptance thing does still present a concern [for .brand email], and it's down to basic things like how many things are coded in ways that may not accept a longer string. It's stuff that will take time to adjust, and that affects all the new gTLDs." – Person F

Many of the immediate benefits of a .brand are reliant on customer understanding of the idea. This is especially true for benefits in Category 2, as mentioned in chapter 5.3, but it also impacts how difficult and risky it is to use .branded URLs in marketing as in Category 1. Educating a customer about your .brand is going to be more difficult and costly if they have never heard of the concept before, compared to if they regularly interact with the .brands of 10 other companies in other industries. This means that there is often a very clear benefit to delaying use of a .brand until the technology has become more widespread, and the burden of communication has been carried by other .brand companies. For those that are risk-averse and do not care too much about an image of being cutting-edge, it therefore makes sense to reduce cost and risks by delaying .brand implementation as long as possible. If viewed from an innovation diffusion perspective, this aspect of .brands basically means that there is an additional incentive to belong to the early or late majority as opposed to being an innovator or early adopter.

Finally, .brand implementation has been made more difficult by the lack of other companies adopting the technology in a given industry. Many interviewees have communicated a desire to analyze and learn from how other .brand users approach the technology, but since .brands are still not very widespread, this has often proven difficult. Furthermore, many third-parties, such as large consulting firms and marketing bureaus, are not yet aware of .brands or how to work with them, meaning that when companies look for external assistance for their .brand implementation projects, it has often been difficult to find.

"We've been in contact with several large consulting firms, but nobody seems to have the knowledge to give us good advice. No one wants to take charge of the issue - they haven't even been interested to meet us, they just say 'oh, we don't work with that stuff'. Some of the ones we have called don't even know what [a .brand] is! They have no idea! And that's also one of the things that creates uncertainty for us, when we realize that there's no one out there who really knows this well." – Person I

Relating these issues to the five attributes of innovations presented in the theory chapter, we can frame them as .brands lacking in relative advantage, observability and trialability. There are also a lack of change agents helping .brand owners define their goals and implement the innovation.

6.2. A method for .brand implementation

Many companies currently have one or a few people who are excited about the possibilities of .brands, and who are currently working on spreading that excitement and converting it into real action on the technology. In the hope of helping a few of these innovation champions in companies currently thinking about a .brand implementation, whether they have already gotten their .brand or are thinking about applying in the next round, this final part of the report suggests a 6-step method for how to go about a .brand implementation, presented in Figure 15 below.

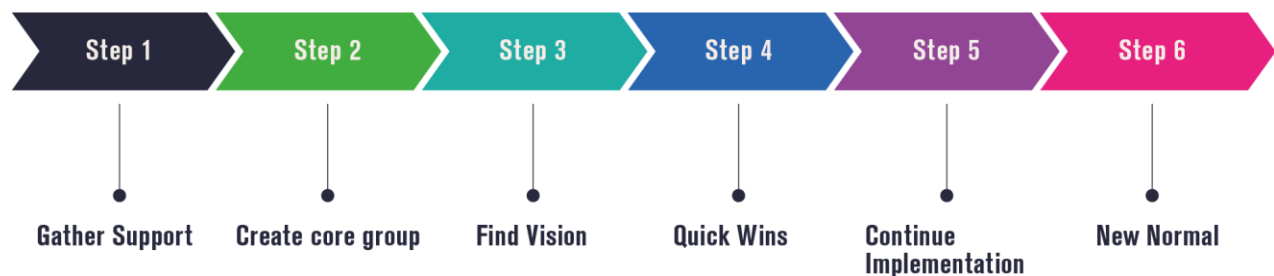


Figure 15. The .brand implementation method

To develop these guidelines, I've consolidated some of the tips that successful .brand implementers and others with insight into the .brand implementation process have given me in the course of my interviews. These recommendations have then been compared to and fit together with proven methods from my earlier review of the innovation and change management literature in Chapter 2.3 and 2.4. An illustration of the relationship between stages in the .brand implementation method presented here and parts of these previous theoretical models is shown in Figure 16.

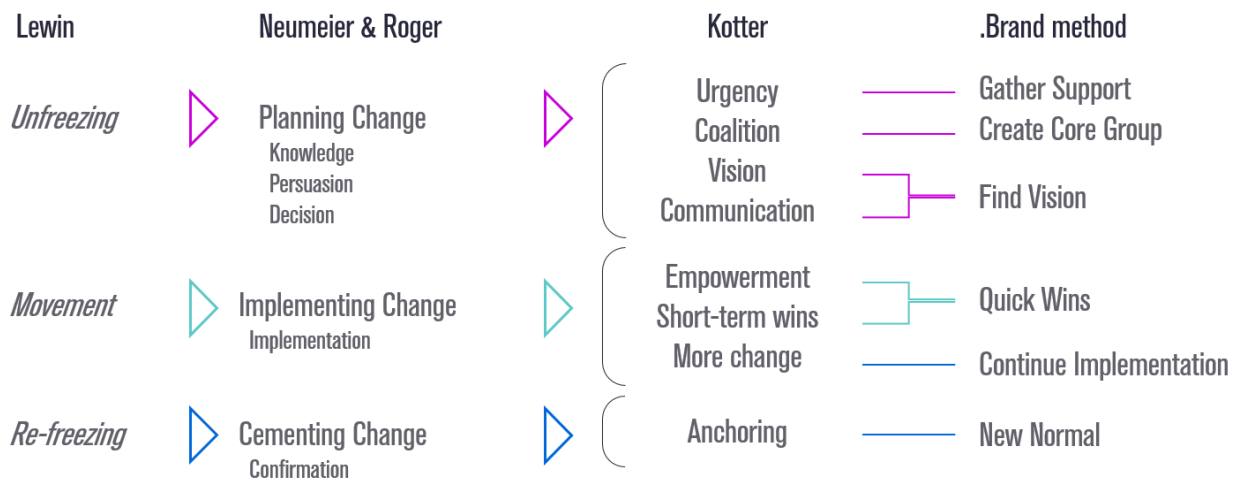


Figure 16: How the stages in the .brand implementation method relate to models from the theory

As a disclaimer, the priorities and challenges of a .brand implementation will of course vary wildly from company to company, which means that no model will be able to fit every case. Just like .brands themselves, this model will need to be adapted to the given circumstances of the case at hand. The stages making up this method are aimed towards relieving some of the barriers to .brand implementation summarized above, and my hope is that it can give companies facing these barriers some inspiration and a few good ideas for how to tackle them.

6.2.1. Step 1 – Engage key supporters

Since implementation of a .brand is a large undertaking, necessarily involving people from different departments and disciplines, it really doesn't make sense for any one part of the organization to tackle it on their own. Instead, the first step for many innovation champions will be to win the engagement and support of other parts of the organization, including top management. In many cases, either the top management sponsors who supported the .brand application have now moved on, or maybe they never knew much about the .brand in the first place - either way new support must be gathered.

"For us, the first step is to create more awareness, especially in top management. It's not a certainty that everyone in the management team actually knows that [our .brand] exists. We want to create an interest for further implementation"
– Person I

Viewing .brand implementation as its own, separate innovation adoption process, separate from the decision to apply for the .brand, this stage needs to push the organization as a whole past the knowledge and persuasion stages of this new adoption decision process. This is where the organization needs to learn about what .brands are and how they can be used, and form their own opinions about them. The organization then moves into the decision stage, where management must make a call on whether or not it's considered worthwhile to proceed with a .brand implementation. True to the first step of Kotter's change management model, it is important to create a sense of urgency about the .brand, focused either on the potential to gain an advantage over slower adopters or the danger of ending up at a disadvantage. The worst possible outcome is for the .brand asset to stay on the shelf indefinitely.

As previously mentioned, probably the most important stakeholder aside from management to engage at this point is the communications / marketing departments, which in many cases have not been deeply involved with the .brand application process so far, but which are vital stakeholders to engage in realizing most of the early benefits promised by a .brand.

6.2.2. Step 2 – Create a cross-departmental core project group

To combat the lack of clear responsibility for the .brand project, a clear project owner needs to be designated by top management. Ideally, this should be a core group of people representing all of the major stakeholders of the project, and each bringing their own set of competencies and perspectives to the table. At least one representative from each of the IT, Legal and Marketing / Communications departments should be included in this core group, and if there are people still in the organization who were involved in the initial application process, they should be brought on board if at all possible. From this point onwards, the core team are the designated owners of the .brand project, and will be responsible for driving it forward for the foreseeable future. Ideally, the project should also be given its own budget, as to avoid overdependence on any one department.

6.2.3. Step 3 – Develop and communicate a vision

The idea in this combination of steps 3 and 4 of Kotter's model is to combat the lack of a plan for the .brand by letting the newly appointed core group get to work in creating a strong vision of how the company can best use their .brand. Keeping in mind that every organization will have different priorities and uses for the .brand innovation, a business case is fleshed out and a first project plan is drafted. It is important to not be too specific or detailed here, as circumstances are likely to change and assumptions proven wrong once the project is under way.

It can be useful to look to what has been done by other .brand implementers to find inspiration, even if those examples are from unrelated industries, as many use cases are likely to be similar from industry to industry. Potentially, this is also a good place to look for external assistance in the form of back-end providers and other specialized .brand consultants, who have experience from .brand implementations in other companies.

Once a compelling vision is created, it then needs to be communicated throughout the organization to raise awareness about the new innovation and the changes to come. Each member of the core team should look to create discussion and dialogue about the potentials of .brands within their respective parts of the organization. The focus here is to create early engagement and to start building some early momentum for the change process.

6.2.4. Step 4 – Create internal engagement and find early quick wins

Starting the .brand implementation proper, the initial focus should be on creating further internal engagement with the .brand idea, as well as combating some of the barriers and sources of resistance that may still exist. To do this, one or a few projects need to be identified which can be used to quickly demonstrate the efficacy and potential of the .brand technology in a fairly visible and low-risk way. Using a .brand URL in a marketing campaign, word of which could spread throughout the organization, could be a good way to do this. Another strategy is to focus entirely on internal projects, such as an employee-only web-portal utilizing the .brand, which are fairly low-risk yet highly visible to internal members of the organization.

“The first thing we had to do was to train our internal staff to recognize that this really was a tool that they could use. Because if you don’t train your internal staff, then how can you train external people when they are going to come asking your internal people for information and the internal people are not even going to know what it is?” – Person I

The idea behind focusing on internal engagement first is that once people in the organization start understanding and thinking about the .brand technology, they will then bring that knowledge with them in their everyday work, continually thinking about new ways in which .brands could be applied to challenges in their specific part of the organization.

6.2.5. Step 5 – Create external engagement and continue implementation efforts

Once momentum has been built up and sustained for some time, the hope is that change will start happening more autonomously, as ideas for different uses for the .brand pop up all over the

organization. The core project team here changes their role almost to that of an internal consultancy team or competence center, engaging with and helping different parts of the organization to implement the .brand into their own area of work.

“One thing that we learned that was really important was that we couldn’t just hand over a domain and say ‘hey, use this thing’ – we really had to work with the team from the very beginning. So I had to insert myself in a way where I was providing support without taking over the project entirely. [...] And as soon as you do that once, they’re going to start redirecting you to the next project over there, and the next...” – Person I

At the same time, the core team is responsible for keeping the project on track with the long-term vision, ensuring that work progresses in the right direction, and carrying lessons learned forward into new application areas. With each step, the .brand innovation is further re-invented to fit the organization, more and more momentum is built, and larger implementation projects can be attempted.

“[We were successful] because the project was run by a team of people who were there to advice anyone in the company who wanted to use the .brand, to anchor any effort to use it in a new way. When we first launched, it was seen as a big change with a lot a possibilities.” – Person P

At the same time, external stakeholders now also need to be informed about the occurring changes. Many of the benefits of .brands outlined in chapter 5 require the understanding and engagement of customers and business partners, which means that this step also needs to include a major effort to communicate the benefits and goals of the .brand implementation to these parties.

6.2.6. Step 6 – Cement .brand as the new normal

In the final step of all aforementioned theoretical models, the new approaches are anchored into the organization to the point where they are no longer considered innovative, but simply part of how things are normally done. So too in this method, where in this last step, the .brand is now finally fully accepted by the organization as the natural, go-to TLD for most of the organization’s internet presence. The change has been cemented, the organization re-frozen, the innovation confirmed, and the core project team has moved to a role more out of the spotlight, continuing to innovate around how the .brand is used and working on more incremental improvements.

6.3. Considering full .brand migration

One last thing to consider when planning a .brand implementation is whether and when it makes sense to fully move over the home page to the .brand TLD. This is a major undertaking, but also a prerequisite for many of the benefits that .brand has to offer. For most companies, it probably makes sense to start off slow, warming the organization up to the idea of .brands through use in marketing URLs and for microsites such as the popular “annualreport.brand”. Full migration can then be tackled a bit further down the road, when momentum with both internal and external stakeholders has been built up and the difficulty of a full migration reduced. In some cases, as discussed in Chapter 5, it makes sense to start the .brand implementation off with a bang and go immediately for a full migration. In those cases, the more incremental method presented above would need to be somewhat modified.

If and when a full migration to the .brand TLD does happen, it also needs to be paired with a serious communication campaign, and preferably timed to coincide with an overhaul of the main website. It also needs to consider how to handle existing resources and assets in existing generic TLDs. Some parts of the company presence may be better suited to a generic TLD for various reasons, and a defensive domain portfolio designed to protect the brand on generic TLDs will need to be maintained and updated to avoid losses of traffic and damage from bad faith registrations, at least in the short term. A balance between the new .brand and current gTLDs will need to be found, and will then gradually shift based on future developments and needs.

6.4. Silent internal development

This chapter has taken the view that surprisingly little development is yet going on in the .brand sphere, and tried to explain why that could be. It needs to be mentioned, however, that there is likely a lot of activity going on under the surface that is not visible to the public eye. If a company is following a method even vaguely like the one presented above, it would not be until the equivalent of step 4 or even 5 that anyone outside that company would be made aware that a lot of work and progress would already have occurred with that company’s .brand. In reality, a lot of the .brand owners that I have not yet talked to are likely more active than it might seem to an outsider, and more and more ongoing .brand implementations will probably become publicly visible in the coming months and years.

7. Conclusion

The creation of .Brand TLDs is an interesting and potentially very impactful development of the domain name system. Because they match a trademark and are used only by a single company, they represent a new way of combining a brand name with a top-level domain to create a very strong link between a company's name and its internet presence. Around 600 .brands were applied for, mostly by medium- and large-sized companies and in a variety of industries and geographies, in an initial application round in 2012.

Despite some significant barriers making implementation of .brands take longer than first expected, the technology is slowly but steadily gaining ground in many global companies. As this report has argued, there is a breadth of potential benefits to be gained from .brands – including more efficient marketing with shorter, more memorable domain names, safe and trustworthy online neighborhoods and communities where brands can build strong brand equity, and the potential for business development and major innovations based on .brand infrastructure. Some of these benefits are still uncertain and may not fully materialize for some time, but others are very much happening already, as a result of companies all over the globe trying out their .brands in various contexts.

Efficient implementation of a .brand is impeded by lack of early planning and leadership, owing to both the complexity and length of the application process, a failure by companies to prioritize the technology. A suggested implementation method based on engaging core supporters, creating a cross-disciplinary project team, and focusing on internal knowledge and engagement before external could potentially create more success for businesses looking to make full use of a .brand.

8. Discussion

Whilst my investigation into .brands has been incredibly interesting, it has in some ways raised more questions than it has answered. The full impact of .brands is far from certain, with some observers predicting a complete revolution in how businesses will represent themselves on the internet, whilst others believe that the whole thing is just another internet fad. As is usual in these matters, the reality probably lies somewhere in between these two extremes.

The benefits presented in this study seem to justify if not an immediate application then at least a serious discussion about .brands in most large companies. This is especially true for companies with very valuable brands, for whom the application and operational costs of a .brand are small compared to the amount spent yearly on marketing and brand protection. Depending on the specifics of their situation and business, some medium-sized and even a few smaller companies should also at least start thinking about the possibility of a future application. Whether or not an application or implementation makes sense depends on a range of factors, and the business case for .brand will have to be evaluated on a case-by-case basis.

Factors that make a future .brand application or implementation more attractive include a reliance on online channels, large marketing spending, a big impact of counterfeiting and online scams on the business, and a potential for business development and technological innovations based on online communication. .Brands should also be more highly considered in fast-moving companies with a need for flexibility, companies with a more centralized branding architecture, companies that can't get a good .com address, and companies sharing a brand name with actors in other industries and geographies.

A company's brand architecture, as mentioned in Chapter 2.2.3., also impacts the decision of whether or not to attempt a .brand strategy. A strong master brand makes an obvious candidate for a .brand, but even a hybrid strategy with endorsed- or sub-brands could benefit from a .brand, as it creates possibilities to connect the sub-brands to the master brand in a powerful and simple way – something like “express.fedex” or “playstation.sony”. A company using a house-of-brands strategy, on the other hand, needs to be more careful when approaching .brands. Since the main brand of the company is not meant to be explicitly linked to any of the company's product brands, every brand would require its own .brand TLD. Since the investment required to control a .brand is significant, a house-of-brands company would have to carefully consider which of their brands, if any, justify the expense.

So far, only 500-odd companies actually have access to their .brands, meaning the potential for development is still limited. It will therefore be very interesting to observe what happens once the next application round for new gTLDs finally opens up sometime in the early 2020's. The future impact and ubiquity of .brands will depend more than anything else on how many brands, large and small, apply in that round. The amount of applications in round 2 is in turn likely to depend on two factors. The extent to which the application process has been made cheaper, simpler, and more efficient will impact how easily an investment into .brand can be justified. At the same time, the amount of investment into .brand marketing and innovation by early adopters will impact how aware the general public is about .brands and how concrete the benefits of the technology will seem to later adopters.

For the moment, .brands will keep coexisting with today's gTLDs. Whilst many end-users will quickly learn to expect and use .brand addresses, and appreciate their ease-of-use and relative security, there will always be those who prefer ".com", which means that existing domain portfolios will likely remain as a defensive measure if nothing else. For small and medium-size businesses with a limited geographical reach, the significant investment of money and resources required to control and operate a .brand TLD can in almost all cases not be justified given the limited benefits it currently offers.

It is my hope that the information and methodology presented in this report will be of some help for companies who are currently considering implementing a .brand, as well as those who are considering a round 2 application. The internet is an amazing technology which never stops evolving, taking novel shapes, and finding new ways to impact the everyday life of people all over the world. If this report could contribute to one of the next steps in that evolution, in even a small way, I would consider my time well spent.

9. Further research

In my explorations of the .brand development and ecosystem, many interesting questions have arisen that have been outside of this report's scope to further investigate, but which could potentially have major impacts on the spread and success of .brands as a technology.

The number one question that people brought up when talking about .brands, especially those companies that had not decided to apply and were generally skeptical, is how it would fit into and interact with the wider ecosystem of developing internet-based technologies, many of which are also currently changing how we approach and use the internet on an everyday basis. Among these technologies are search engines, apps, voice search and virtual assistants, which are revolutionizing how we as consumers interact with the internet. Other interesting applications of internet technologies are things like blockchains, connected smart-devices and embedded systems. Of course, domain names are part of the infrastructure making many of these technologies work, which is why it will be very interesting to see how the new development of .brands will interact with the ecosystem of emerging internet technologies as a whole. This is one aspect of .brands which simply did not fit within the scope of the present study, but which will be central to their future development and use, and thus constitutes a potentially fruitful area for further research.

Another interesting question is how exactly .brands will interact with intellectual property. As mentioned in Chapter 4, .brands, in contrast to trademarks, are globally unique, which raises a few potential challenges. In the first round, with only 600-odd .brand applicants, these issues were rare and could mostly be solved directly between the applicants themselves. But if .brands truly take off and become a semi-mandatory asset for large-cap companies and top brands, and 10.000 or more .brand applications are submitted in the next application round as some in the industry are predicting, this problem is likely to be in the front and center of the discussion. With potentially hundreds of major companies unable to ever control the hypothetically vital asset of a .brand TLD, ICANN could potentially be forced to make some changes to the rules. This, then, is also an interesting area for future study.

10. Post-script

On the 9th of June, just after the completion of this report, the gTLD Registries Stakeholder Group (RySG), a sub-entity in one of ICANNs supporting organizations, submitted an open letter to the ICANN board suggesting that the next application round for nTLDs should be opened as soon as possible. The RySG further suggested a set of guidelines and ideas for how such a process could be handled, and suggested, based on this information, that the next round of nTLD applications could happen as soon as the final quarter of 2018.

Although still only a suggestion, the letter does suggest increased internal pressure within ICANN for a quick round 2 of new gTLD applications. Furthermore, the existence of a concrete proposal for a second round is a potentially significant development, since up until this point, off-the-cuff guesses have been the best estimate available for the timing of a round 2.

If another application window does open up as soon as 2018-2019, it would probably mean an acceleration in the spread and development of .Brand TLDs. This both because more companies would gain access to .brands quicker, and because existing companies suddenly have a concrete deadline after which their current competitive advantage will quickly dissipate. Current .brand-owners will thus have yet another reason to speed up development and implementation of their .brand asset in order to make the most of their investment and the advantage gained by a Round 1 application.

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