Brand Identity Ontology

Dina Elikan and Yves Pigneur
Faculty of Business and Economics (HEC),
University of Lausanne
1015 Lausanne, Switzerland
{dina.elikan, yves.pigneur}@unil.ch

Abstract. Brand Identity is of paramount importance for or«ganizations today. Due to the advancement of technology, faster innovation, growing competition and more demanding consumers, managing a brand is becoming more and more complex. Entrepreneurs in Startups and SMEs need to have a clear branding strategy: a narrative that defines the company's vision, inspires employees and others, and remains relevant through changes. This is hard since the branding concept has been researched from many different perspectives, which makes it foggy. This paper aims to present an ontology that uncovers the key concepts of startup and SME brand identity, in order not only to bring some semantical clarity to the topic but also to lay the foundation for the development of a co-design tool to collaboratively inquire on brand identity in startups and SMEs.

Keywords: Brand modeling, Brand identity, Startup, SME

1 Introduction

Brand identity is of paramount importance for organizations today. Due to the advancement of technology, faster innovation, growing competition and more demanding consumers, managing a brand is becoming more and more complex [28],[5],[2],[20]. Brand identity strategies aim at guiding brand decisions, guarantee the coherence of a marketing strategy over time and should be associated with specific and limited core values that are complementary to organizational value and culture [8];[30]. It is through the development of a specific brand identity that a company makes a brand unique and conveys its distinctiveness [29].

The creation of a well-defined brand identity during a company's infancy helps it to manage its strategic direction and the value it creates for stakeholders. Startups and SMEs need to attract attention from both internal and external stakeholders in order to be successful [7]. They need to communicate their purpose and identity in order to sell to their potential investors and customers, as well as to communicate consistently on social media. However, often SME owner-managers seem to think that branding is out of their reach [22]. Adding to that, Fetscherin and Usunier [10] state that the concept of brand is still unclear and could benefit from a conceptual model.

Because brand identity is an ill-defined problem, a co-design tool would help practitioners better frame the problem and allow them to collaboratively prototype potential solutions [4]. Nonetheless, to our knowledge and according to a SME in the domain of energy in Switzerland and a Fintech Startup based in Switzerland and Mexico, who both tried to rethink their brand identity strategy, it is a real issue and to date, there is no existing tool that has proven useful for that. Moreover, it has been demonstrated that startups and SMEs have so far put little emphasis on branding [19],[11],[25].

This paper's contributions are twofold: first we present a state of the current brand identity ontology and second, we lay the foundation for the development of a visual inquiry tool for entrepreneurs to co-design their brand identity. This ontology, implemented in a formal language could also be used by companies for supporting their Information Systems for managing their brand identity. The remainder of the paper is organized as follows: in section 2, we describe the components of the ontology. We present the current state of that ontology in section 3. In section 4, we discuss these results and present future work in section 5.

2   Brand Identity

A systematic literature review (SLR) was conducted [9] in order to uncover the different components captured and useful for the "brand identity ontology". A total of 1592 papers were found on the topic of "corporate brand identity" in the different sources looked at (Google Scholar, Emerald Fulltext, JSTOR, ISI Web of Knowledge and Springer Link). Then some inclusion and exclusion criteria were applied, to keep only the papers written in English, that were relevant to define the brand identity concept. We ended up with a total of 55 papers, which led to 24 concepts seen as relevant. Among these 24 concepts, some were sharing a same meaning but with different semantics and others were not applicable for startups and SMEs brand identity strategy. Thus, we kept only nine elements, which seemed to summarize all the necessary concepts of brand identity applied to startups and SMEs. When trying to apply the concept of "corporate brand identity" to startups and SMEs, one has to look at the main difference between brand identity for large organization (LO) and smaller organizations (SO). According to Spence and Hamzaoui [28], the main differences are the following: in a LO, the brand identity concept comes from a visionary management, whereas in SO, it comes from a visionary individual (i.e.: the entrepreneur). In LO it is a systematic process based on extensive market research in order to fill a gap in the market place, whereas in SO it is an intuitive process based on the entrepreneur's personality and values. As for the strategy, in LO multiple strategies are used with the aim of maximizing market coverage and overlaps. It is usually part of the overall brand strategy development. In SO, the number of strategies is limited. Collaborative strategies as well as corporate branding are generally not used at all.

These findings show that the concept of brand identity has been looked at from a wide range of disciplines (marketing, organizational behavior, strategy and communication), which explains the semantic confusion around this concept. The brand identity concept

includes a set of components that determine a brand's way of being, thinking and behaving. It defines the purpose and meaning of a brand and the directions it should follow. For marketing scholars, one of the main concepts of corporate branding is identification. For instance, Aaker [1] and Melewar et al., [21] have defined it as the communication of the unique features of a product or service to customers, which in turn differentiates the brand from its competitors. From a strategic perspective, it is seen as a key activity that requires to be managed, which is constructed by different activities. In organizational behavior, scholars tend to look at brand identity to understand the relations between internal and external stakeholders in organizations. But in different disciplines, authors seem to agree that the brand era has shifted from a "relationship-focus" era where only external and internal customers were taken into account to a "stakeholder-focus" era, where all stakeholders are considered [23].

3 Method

This project relies on a design science research methodology [31], which is widely accepted in Information Systems (IS) for designing innovative artefacts. This approach particularly suits this project because it allows both to support the design phases and the evaluation phases of the different artefacts that are to be developed. In particular, Hevner et al., [31] state that « knowledge and understanding of a problem domain and its solution are achieved in the building and application of the designed artifact. ». Because the aim of this project is to better understand the problem of brand identity in startups and SMEs and to build new artefacts to solve it, this seems like the appropriate approach.

4 Conceptual Model

From the literature review, and following a classical ontology engineering methodology [12], a formalization as a brand identity ontology is developed. The ontology follows the modelling principles of the previous section and tries to be as close to the literature as possible. The objective is to develop an ontology flexible enough to accommodate all the existing theories from all the different fields of research, like the ones presented in the section 2. The first step has been to formalize the brand identity model.

We started the model by looking at brand identity from a strategical viewpoint. To do so Hatch and Schultz [17], propose that *vision image* and *culture* are the main concepts that need to be aligned. They explain that an organizational identity is an ongoing process that behaves like a conversation between the organization self (the culture) and the images held by the key stakeholders. In that sense, they are the first authors and to our knowledge the only ones to look at identity as a dynamic process constructed from interrelations between different concepts. We started from these three elements and tried to look at all the components found in the literature with that lens. We thus, looked at all the other elements in relations with these three main elements. Two main different

parts or interfaces can be identified in the model, they differentiate between the internal and external parts of a company.
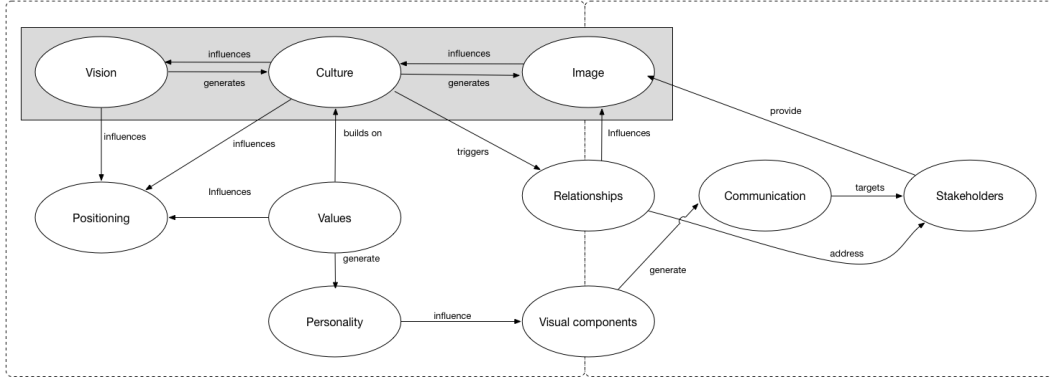
Fig. 1. Emergent brand identity relationships based on the SLR

Vision is an internal element of an organization that will drive the *positioning* of an organization's brand. It is the organization's long term purpose, reason of existence, vision and philosophy. It describes the starting point from where all the activities of the organization are initiated. It will also generate a certain *culture*. *Culture* is a collective way of thinking, a collective feeling among internal stakeholders. This feeling results from *values*, culture strength and future directions, as for instance differentiators from competitors. Culture is highly influenced by the *values*, which are the moral beliefs and principles of the organization. These values mixed with all the beliefs and the ideologies present in an organization form its *personality*. This personality will highly influence the visual components (i.e: all the visual elements, such as the name, symbols, design, website and everything that can be seen) that will be used to communicate with different stakeholders. *Communication* refers to all the media used for communicating with stakeholders, which will transform these different communications that reach them into an image. *Image* is seen as being both internal and external to an organization. Some researchers see it as the way they would like outsiders to see their organization whereas others see it as the way different external stakeholders actually see the organization. By combining both of these views, we state that image is a holistic view held by *stakeholders* (internal or external) towards a specific organization and it is the result of sensemaking by these stakeholders and communication from the organization of a projected picture of itself. It is also influenced by daily interactions between organizational internal members and external audiences (*relationships*).

5 UFO (Unified Foundational Ontology)

In order to enrich the ontology, we chose to take existing upper ontologies into account. Upper ontologies, also called top-level ontologies allow for defining the basic entities and general categories that constitute the universe and provide a common reference framework and vocabulary [14]. For building new ontologies, foundational ontologies

are seen as a good starting point to provide a reference point for allowing comparisons among different ontological approaches. They are conceptualizations that contain specifications of domain independent concepts and relations based on formal principles derived from different sources [24]. Because we want to define an ontology, based on new concepts, we adopted the descriptive ontology for linguistic and cognitive engineering. This allows us to better define these new concepts by grounding them in more general categories.

UFO (Unified Foundational Ontology) was created by Guizzardi [15], it was developed to provide foundations for conceptual modeling based on philosophically principles as well as capturing the ontological distinctions underlying human cognition and common sense. It is adapted to the brand identity concepts, because they are drawn from different domains of research (i.e.: marketing, organizational theories, strategy). It has proven useful for helping defining (ontological) real-world semantics for their underlying concepts and providing guidelines for their correct use [16]. OntoUML is a pattern-based and ontologically well-founded version of the Unified Modeling Language (UML) [6]. Its meta-model was designed in compliance with the ontological distinctions of the Unified Foundational Ontology (UFO). It is thus logical to use OntoUML when designing a unified formal ontology. It allows to attain a great level of expressivity while producing an ontology that can be easily shared through the web and thus be opened to third party extensions. The ontology presented in this paper has been formalized on OLED, a lightweight editor for developing, evaluating and implementing domain ontologies using OntoUML. The result is shown in **Fig 2**.
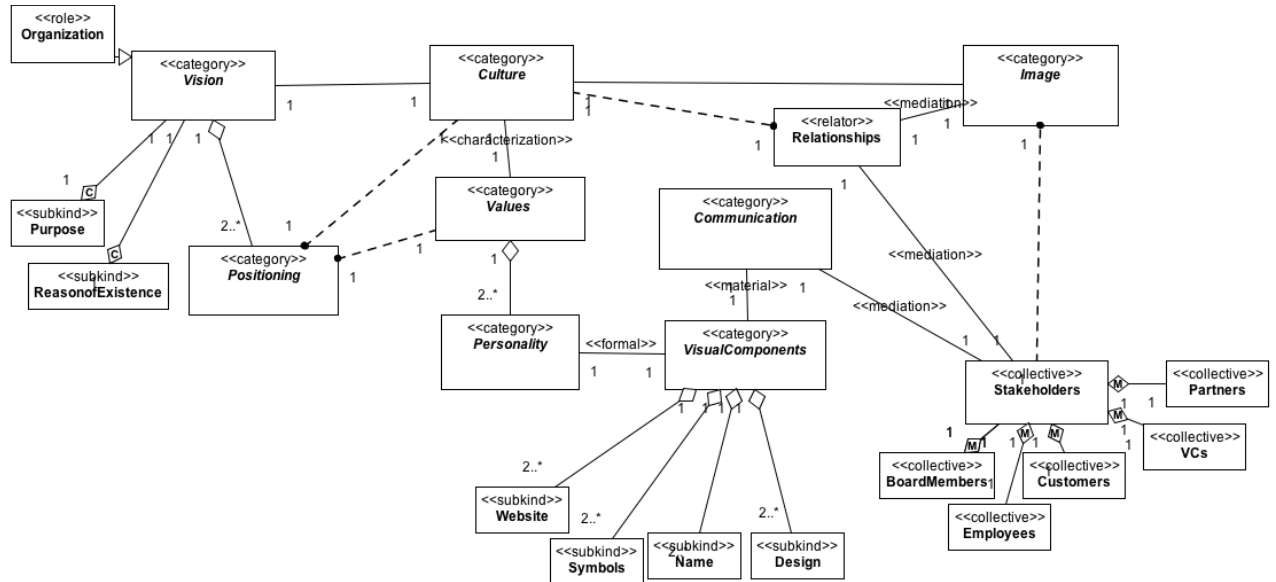

Fig. 2. Brand Identity Ontology conceptualized using UFO, formalized in OntoUML

The different parts of the model have been modelled using the primitives provided by OntoUML. The main building blocks are categories. The first step has been to model all of the found concepts shown in **Fig. 1** as categories. Therefore, there are categories such as Vision, Culture, Image, and so on. For the relations among these concepts in the model, properties have been generated, i.e. derived, formalization, characterization, etc. The full specification of the Brand Identity Ontology, in OntoUML format can be available upon request.

The previous formalization provides little semantics apart from those explicitly present in the model. We have started this conceptualization by looking at the three components of a brand identity that need to be aligned in order to provide the company with a strong a coherent brand identity. These three elements are "vision", "culture" and "image" and according to Hatch and Schultz [18]. Vision is the long-term vision of an organization, the reason of existence and the purpose of a company. It describes the starting point from where all the activities of the organization are initiated. It is the result of a company's purpose and reason of existence. It then influences the positioning, which is derived from values and positioning. We have added the sub-kinds of the visual components and the members of the members of the collective "stakeholders". The different relations between the components have also been further specified.

6   Conclusions and Future Work

In this paper, we present a model for describing brand identity in the context of startups and SMEs. The model is formalized as an ontology that can easily be computerized. This concept, even though it lacks clarity and formalism, has not to our knowledge been looked at in a formal way until now. And according to [10], the concept lacks a clear definition and would benefit from a conceptual model. To conceptualize brand identity in startups and SMEs we propose an ontology based on a systematic literature review and the definitions of relevant contextual elements. This ontology is based on the OntoUML standards, which allows it to be mutable, expandable and reusable. Having taken this approach, we can deal with the fuzziness and complexity of the topic of brand identity.

Further work includes evaluating this ontology, trying to apply it on real-case scenario to see if it manages to describe brand identity creation and management in startups and SMEs. Evaluations and iterations of this ontology will allow to specify it and refine it as well as enrich it to make it as close as possible to the reality of the observed phenomenon. Gomez-Perez [13] proposes that evaluations allow for correctness and completeness of ontologies' definitions, documentation and software. They should thus be evaluated on any intermediate or final definition, a set of definitions, documentation, and software environment. Almeida [3] proposes a framework that allows to evaluate whether the ontology is representative of the domain it tries to model. The evaluation process proposed by this author lies in two phases: prototype use and questionnaire answers. The goal of the prototype is to see if an application of the ontology can be used whereas the questionnaire is aimed at the concerned users to ask them to evaluate

whether the ontology is able to represent what it should according to their knowledge and expectations. We plan on applying both of these authors' propositions and evaluate different intermediate versions of the ontology before reaching some stabilization.

The next steps include the design of a visual tool corresponding to the proposed and refined ontology after it has been evaluated. Designing a visual artefact corresponding to the logic of this ontology will allow its use for startups and SMEs. Following Avidiji et al. [4], this ontology would be the basis of a visual inquiry for entrepreneurs to co-design their brand identity. The conceptual model would be instantiated into a visual tool using visualization principles. This tool would allow practitioners to have a shared visual and shared understanding of their brand identity strategy. It would support and guide them towards explorations and discussions about potential brand identity strategies. This visual instantiation would be a *Brand Identity Canvas* that would complement the Business Model Canvas [26] and the Value Proposition Canvas [26]. It would thus, contribute to the practical domain by giving practitioners a strategic tool that can be used to co-design the building and management of their brand identity.

References

1. Aaker, D.A.: Leveraging the corporate brand. Calif. Manage. Rev. 46, 3, 6–18 (2004).
2. Abratt, R., Kleyn, N.: Corporate identity, corporate branding and corporate reputations: Reconciliation and integration. Eur. J. Mark. 46, 7/8, 1048–1063 (2012).
3. Almeida, M.B.: A proposal to evaluate ontology content. Appl. Ontol. 4, 3–4, 245–265 (2009).
4. Avdiji, H., Elikan, D., Missonier, S., Pigneur, Y.: Designing Tools for Collectively Solving Ill-Structured Problems. In 51st Hawaii International Conference on System Sciences (HICCS) 400-410. IEEE. (2018)
5. Balmer, J.M.: Identity based views of the corporation: Insights from corporate identity, organisational identity, social identity, visual identity, corporate brand identity and corporate image. Eur. J. Mark. 42, 9/10, 879–906 (2008).
6. Benevides, A.B., Guizzardi, G.: A model-based tool for conceptual modeling and domain ontology engineering in OntoUML. Enterp. Inf. Syst. 528–538 (2009).
7. Bresciani, S., Eppler, M.J.: Brand new ventures? Insights on start-ups' branding practices. J. Prod. Brand Manag. 19, 5, 356–366 (2010).
8. De Chernatony, L.: A model for strategically building brands. J. Brand Manag. 9, 1, 32–44 (2001).
9. Elikan, D., Pigneur, Y.: Towards a brand identity ontology (2018) *under reviewing*
10. Fetscherin, M., Usunier, J.-C.: Corporate branding: an interdisciplinary literature review. Eur. J. Mark. 46, 5, 733–753 (2012).
11. Gabrielsson, M.: Branding strategies of born globals. J. Int. Entrep. 3, 3, 199–222 (2005).

12. Gomez-Perez, A. et al.: Ontological Engineering: with examples from the areas of Knowledge Management, e-Commerce and the Semantic Web. Springer Science & Business Media (2006).
13. Gómez-Pérez, A.: Some ideas and examples to evaluate ontologies. Presented at the Artificial Intelligence for Applications, 1995. Proceedings., 11th Conference on (1995).
14. Guarino, N.: Formal ontology and information systems. Presented at the Proceedings of FOIS (1998).
15. Guizzardi, G.: Ontological foundations for structural conceptual models. CTIT, Centre for Telematics and Information Technology (2005).
16. Guizzardi, R.S., Guizzardi, G.: Applying the UFO Ontology to Design an Agent-Oriented Engineering Language. Presented at the ADBIS (2010).
17. Hatch, M.J., Schultz, M.: Are the strategic stars aligned for your corporate brand. Harv. Bus. Rev. 79, 2, 128–134 (2001).
18. Hatch, M.J., Schultz, M.: The dynamics of organizational identity. Hum. Relat. 55, 8, 989–1018 (2002).
19. Inskip, I.: Corporate branding for small to medium-sized businesses—A missed opportunity or an indulgence? J. Brand Manag. 11, 5, 358–365 (2004).
20. Klaus, P., Maklan, S.: The role of brands in a service-dominated world. J. Brand Manag. 15, 2, 115–122 (2007).
21. Melewar, T. et al.: Corporate branding: An interdisciplinary literature review. Eur. J. Mark. 46, 5, 733–753 (2012).
22. Merrilees, B.: A theory of brand-led SME new venture development. Qual. Mark. Res. Int. J. 10, 4, 403–415 (2007).
23. Merz, M.A. et al.: The evolving brand logic: a service-dominant logic perspective. J. Acad. Mark. Sci. 37, 3, 328–344 (2009).
24. Mika, P. et al.: Foundations for service ontologies: aligning OWL-S to dolce. Presented at the Proceedings of the 13th international conference on World Wide Web (2004).
25. Ojasalo, J. et al.: Brand building in software SMEs: an empirical study. J. Prod. Brand Manag. 17, 2, 92–107 (2008).
26. Osterwalder, A. et al.: Value proposition design: how to create products and services customers want. John Wiley & Sons (2014).
27. Osterwalder, A., Pigneur, Y.: Business model generation: a handbook for visionaries, game changers, and challengers. John Wiley & Sons (2010).
28. Spence, M., Hamzaoui Essoussi, L.: SME brand building and management: an exploratory study. Eur. J. Mark. 44, 7/8, 1037–1054 (2010).
29. Srivastava, R.K., Shocker, A.D.: Brand equity: a perspective on its meaning and measurement. Marketing Science Institute (1991).
30. Urde, M.: Core value-based corporate brand building. Eur. J. Mark. 37, 7/8, 1017–1040 (2003).
31. Von Alan, R.H. et al.: Design science in information systems research. MIS Q. 28, 1, 75–105 (2004).