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New Venture Legitimation– An Industrial Internet of Things case

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Abstract:

This paper focuses on the legitimization strategies undertaken by a disruptive new venture. Legitimacy is created through business model adaptation, industry standard creation, marketing campaigns. The organization uses signals such as networks, differentiated frames, narratives and rhetoric in order to achieve and communicate its legitimacy. The study is based on a thematic analysis of data collected between 2015-2023 from 54 online sources including videos, podcasts, interviews, blog posts, articles and documents. The paper contributes to existing literature on signaling theory, new venture legitimacy and has implications for practitioners.

Introduction:

Legitimacy is a crucial resource for new ventures to overcome liabilities of newness (Stinchcombe.,1965). Legitimacy occurs due to an entity's actions being congruent with a socially constructed set of norms, values, beliefs and definitions (Suchman., 1995). Entrepreneurs and senior executives within organizations, seek to create, gain and maintain legitimacy for their enterprises and innovations throughout the lifetime of the entity. In the case of new ventures, the founding members of the enterprise employ different means and avenues to create and gain legitimacy specifically external legitimacy in the eyes of prospective investors, partners and customers. Signaling strategies are employed in front of customers and other stakeholders to gain legitimacy. These legitimacy signals overcome future uncertainty and motivate resource providers to grant resources (Zimmerman and Zeitz., 2002) and provide a buffer for protection against adverse judgements (Lahiri et al., 2019). Signal receivers such as customers may legitimate or de-legitimate the signaler (in this case

an IoT venture) if observable information is found to be contradictory, discreditable, or doubtful (Goffman., 1959).

In this paper, I study the legitimation process of a disruptive new venture “Nexum” from incorporation to its contribution to an alternative 5G industry standard to the first demonstration of its standard compliant network, the legitimacy signals sent out to customers and incorporation of customer feedback. Nexum has developed connectivity technology for the Industrial Internet of Things(IIoT). IIoT refers to new level of organization and control through networked sensors, instruments, and other devices with industrial applications in manufacturing, energy management among others. (Gilchrist., 2016). The venture offers businesses using or implementing IIoT solutions in densely populated device environments, a faster, cheaper and better alternative to still emerging cellular 5G connectivity offered by traditional telecommunications firms.

Theoretical Background:

It is important for entrepreneurs to gain legitimacy for their new ventures since they need it to form partnerships, gain resources, and grow sales (Kuratko *et al.*, 2017) that helps them not only for survival but also for growth (Zimmerman and Zeitz, 2002, p. 414).

Networks:

Nascent ventures identify how they can get and mobilize resources (financial, social and human capital), create routines and establish boundaries. They can increase the likelihood of their ventures persisting long enough to become a stable organization by focusing on resources, routines and organizational boundaries. Nascent organizations on building close connections with established organizations can achieve a certain degree of credibility, legitimacy and competence in the eyes of

evaluating audience(s). Thus time spent on building the strong connections with such institutions increases their chances of survival (Yang and Aldrich, 2017). Such networks are strong signals of legitimacy of a venture.

Narratives and Rhetoric:

New ventures use “issue framing”, use of a high level of abstraction to associate their disruptive ideas to socially accepted values. This use of rhetoric can help with perception of trustworthiness and credibility (Aldrich and Fiol, 2007). While rhetoric can be used to achieve cognitive legitimacy, narratives can be used to achieve socio-political legitimacy at the organizational level (Aldrich and Fiol, 2007). To meet cognitive legitimacy requirements, institutional vocabularies and theorizations of change can be used, both are elements of rhetoric. Institutional vocabularies can be used to expose the inconsistencies in underlying institutional logics, challenging the taken for grantedness of the incumbents while theorizations can be used to establish comprehensibility of the innovation, by connecting it through language to an existing, accepted framework (Suddaby and Greenwood, 2005, p.57). Narratives and rhetoric often form the content of a signal.

Legitimation of new ventures in new industries:

Organization and technology legitimation is pursued by entrepreneurs and senior executives within organizations throughout the lifetime of the entity. Gaining legitimacy is especially important for businesses operating in new lines of activity. Ventures undertake manipulation, selection and conformance strategies for legitimation (Suchman., 1995). New ventures in new industries pursue creation legitimation strategy (Zimmerman and Zeitz., 2002). Creation strategy entails creating new structures of meaning of values, norms and practices in order to gain legitimacy (Turcan and Fraser., 2015).

While existing literature on new venture legitimation discusses the importance of networks and endorsements narrative and rhetoric as well as the different legitimation strategies, there is limited focus on how business models and business ecosystems impact the legitimacy of new ventures as well as what are the specific types within each legitimation strategy (Aldrich and Fiol, 2007; Yang and Aldrich, 2017; Fisher et al., 2017; Snihur and Zott., 2018; Bitektine and Nason, 2019; Partanen et al., 2020; Di Tullio et al., 2020; Thomas and Ritala., 2022) Business models content and business ecosystems act as signals that help new ventures attain legitimacy. Moreover, there is also limited attention on how organizations attain legitimacy from customers and possible partners within a business ecosystem.

Research Approach:

Inductive research approach was adopted with the aim of studying the legitimation strategies adopted by a new venture developing technology in a completely new category. Based on the researcher's search, the case can be considered revelatory in nature and the researcher had access to longitudinal data from public sources (Yin., 2018). Moreover, it was important to study the process of legitimation as continuous, therefore a single case study approach was undertaken. Data for this study was collected from primary and secondary data sources summarized in the table below. Video, interview and podcasts were transcribed using Otter.AI an online transcription tool. Thereafter, the transcripts were reviewed for errors and corrected. Then coding for the corpus was undertaken using Nvivo and key themes were identified. Theme identification was undertaken using thematic analysis (Clarke and Braun, 2017)

Type of Data	Data Source	Number
Secondary Data Sources	Online Videos (including leadership, partners and customers)	32
Secondary Data Sources	Podcasts (leadership interviews)	3
Secondary Data Sources	Documents	3
Secondary Data Sources	Blogposts and articles	12
Primary Data Sources	Presentations	2
Primary Data Sources	Interviews (leadership)	3

Case Description:

Nexum is a university spinout and its proprietary technology was developed by research scientists at the university for a period 10 years before the Nexum was registered in 2010. In 2010, Initially the Nexum focused on providing “everything” solution to their customers. With the entry of a new CEO in 2014, the Nexum shifted their focus to licensing out their proprietary technology for industrial IoT connectivity. Soon, the Nexum raised a series A funding. They started focusing on developing a strong partner ecosystem as a go-to-market strategy and developed a unique marketing strategy that simplified the connectivity concepts for different viewers. More recently, Nexum has contributed to a new standard that uses a 5G frequency spectrum for IIoT connectivity providing a higher quality of service and affordability over cellular 5G IIoT operators.

Analysis and Discussion:

Besides the use of networks to build legitimacy through association from conception onwards till date; issue framing related to scalability-future proofing-sustainability, narratives and rhetoric decentralization of power and freedom to challenge existing technologies; creating optimal distinctiveness; use of professional agency endorsement such as consultant reports and awards, Nexum also undertook the following –

Use of family-based narratives in a traditionally professional logic oriented domain: To stand out from existing, larger competition which often use impersonal and professional logics in their marketing campaigns, Nexum went for a personal, family coupled with technical logics to attain cultural-cognitive legitimacy.

Business Model Change: Business model change includes change in value proposition, revenue streams, costs and customer segments. The venture changed their business model from an end-to-end solution provider to software licensing and royalty-based business model. In addition, to support their customers needing end-end support they adopted a business ecosystem approach where partners could list their products and solutions on Nexum's website. This was also undertaken to improve the taken for grantedness of Nexum. The ultimate aim for Nexum is to be as well-known as Wi-Fi or Bluetooth.

Creation of new standard: Nexum led the creation of a new non cellular 5G standard that was approved by industry bodies in the telecommunications industry and presented as a better alternative to cellular 5G. This was done to drive adoption for Nexum globally since it included 5G frequency band specifications.

Legitimacy Signals: The use of specific narratives and rhetoric act as content of signals for prospective customers and partners. Moreover, the cultivation of partnerships and provision of several resources for partners and the creation of an industry standard all

act as legitimacy signals that help Nexum firmly position itself as a leading wireless network provider for industrial IoT in front of customers and partners,

Conclusion:

A new venture requires legitimacy at different stages. This is even more so for new ventures operating in a new industry for which it has to create a new category. Through this paper, we examine a disruptive new venture that undertook creation legitimation strategy in different ways at different stages of growth. It initially started by adapting its business model to one with demonstrated success across sectors and removing most of the asset and hardware development related expenses. Thereafter, in various forums, the leadership team spoke about the “problems” that Nexum was trying to solve which were something present with the existing technology. They spoke about Nexum’s decentralization, scalability, speed, reliability but also included sustainability in terms of battery life. Their marketing campaigns were aimed at removing the blackbox around their technology by making it sound as simple as possible. They developed a formalized partner ecosystem and provided them with support for co-branding and sales. Lastly, in order to achieve greater taken for grantedness and socio-political legitimacy, they developed a standard that enables the implementation of their technology in a global frequency band. All these efforts served as signals to gain and maintain their legitimacy as a leader in wireless industrial IoT sector. We contribute to existing literature by discussion in detail these strategies that can be encapsulated within creation strategy specifically in cases where new ventures create new categories. Thus, this will also have implications for management or leadership teams in similar contexts.

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