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Micro-level legitimacy in new industry creation – the role of media in legitimacy construction

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1 INTRODUCTION AND POSITIONING OF THE STUDY

Contemporary society and its organizations face increasing pressure to adjust, modify and adapt into all the time changing business environment, customer needs and new developing technologies. New market creation is critical in the sense of continuity and development of the business and its environment, yet however the process is demanding and challenging. From outsider's perspective it seems that despite of the attractiveness and or contributory of the innovation and or new industry, the more disruptive the invention or industry is, the more challenging it is to create, gain and maintain awareness and stability, make change in institutional logic and build legitimacy.

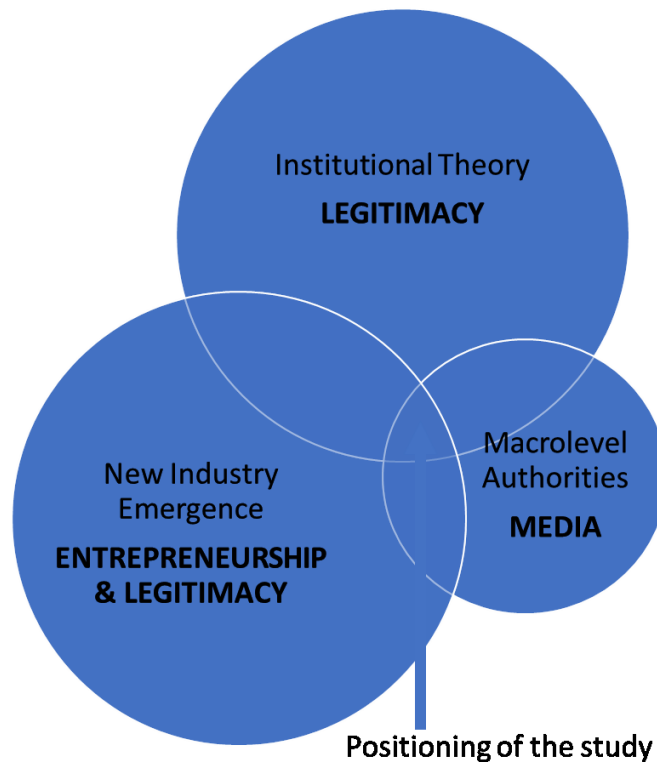


Figure 1 - Positioning of the study

This paper strives to contribute to further illustrate and explain the complexity of phenomenon of building legitimacy for a new industry. More precisely the paper focuses on microlevel legitimacy construction and to the impact, which a macrolevel third party and authority; media has on it. Thus, it is justified to introduce the existing legitimacy literature from both, industry (Aldrich & Fiol 1994) and individual (Suchman 1995; Bitektine

& Haack 2015) perspective. This study uses cryptocurrency market and bitcoin cryptocurrency as an illustrative example of the new industry as it strives to describe the complexity of the microlevel legitimation process during the natural time frame of Bitcoin, 2009-2018.

This study relies on research in institutional theory, legitimacy construction, new market creation and the role of media in microlevel legitimacy building. This research focuses on illustrating the interdependency and trend changes between media and the microlevel legitimacy process with quasi-experimental research methods.

1.1 The background and purpose of the study

Cryptocurrency market was chosen to be used as an illustrative example because of its rich trials and challenges with all three types of legitimacy processes. (Humphrey 2010, 2) Additionally, the market was chosen due to the significant changes it has faced in regulatory, social, normative and cultural-cognitive attitude, even during its relatively short existence period, 2009-2018 (Bonneau et al. 1). When considering the fact that cryptocurrencies have been related and associated with criminal activities, such as money laundry and online drug sales, which can be considered both as a liability as an asset, it can be argued that the market in question is a rich research area for especially legitimation research. Even though cryptocurrency market could be addressed from innovation research perspective, focusing on the technological breakthrough, superiority, process changes or from hidden consumer needs, this research focuses on the social and cultural factors related to the cryptocurrency market creation and the role of media coverage in building or hindering the microlevel legitimacy process. (Humphrey 2010, 2-3; Bonneau et. al. 1; Botos 2017, 488; Forbes 2017).

This study aims to respond to the research question: *Does macrolevel authority, media, have an impact to individual's microlevel legitimacy views?* And its sub question: *If yes, does it affect to all legitimacy categories; pragmatic, moral and cognitive legitimacy views?* by deepening our understanding about microlevel legitimacy views construction process and how it can be impacted by and through macrolevel authority, media.

Bitcoin is justified choice as it was the pioneer, most valued cryptocurrency, as per market capitalization and the most prominent in the market at the time of the research was conducted (Rudlang 2017, 1; Dwyer 2014,82). Whereas timeframe is justified as

being a natural timeframe; Bitcoin was launched to larger audience in early 2009 and the research was being conducted in 2018. (Nakamoto 2009, 1)

Neo-institutional theorists provide answers on “the question of how affected actors seek to attach or deny legitimacy to new organizational forms” (Suddaby & Greenwood, 2005, 35). Institutional theorists provide three ground variables through which they try to explain how new organizational forms emerge. The first element is increasing knowledge of legitimacy, which refers to the interdependence of legitimacy and desirability/attractiveness/being appropriate. (Suchman, 1995, 574 and Suddaby & Greenwood 2005, 35.) The second element is the link between institutional change and the changes in institutional logic. The third element is the dependence changes in institutional logic and the persuasive language / rhetorics. (Suddaby & Greenwood 2005, 35.)

Suchman (1995, 574) has focused his research to the first mentioned element, link between appropriateness and desirability and legitimacy. Suchman is considered as one of the most important scholars in organizational legitimacy research. Even though there are several studies about constituent elements of legitimacy (Dowling & Pfeffer, 1975) and its forms of expression (Suchman, 1995), there are less studies concentrating and explaining the legitimacy creation for emerging new industries; How do new markets emerge and become as “taken-for-granted”? (Forbes & Kirch, 2011, 589.) In addition to creation, also gaining, maintaining and destruction of legitimacy remains with relatively less attention (Suddaby & Greenwood, 2005, 37). According to Humphreys (2010, 2) there is also a need for a deeper understanding of “the role of social and cultural factors in the creation of new markets “.

Suddaby and Greenwood (2005, 37), among others, argue that *legitimacy* is the key driver in the creation and survival of new organizational forms and in institutional change. According to Adrich and Fiol (1994, 648) legitimacy could be defined and approached "by measuring the level of public knowledge about a new activity" or “by assessing public acceptance of an industry”. Legitimacy is however, according to Bitektine & Haack (2015, 50) multilayered, divided into two; microlevel (personal) and macrolevel (third party authorities) legitimacy views and is thus rather difficult to measure and research.

Level dynamics in legitimacy research have been left with relatively low attention even though legitimacy is a crucial part of institutionalization theory where level aspects are strongly present in society’s cross-level interrelations; in institutional stability and change. (DiMaggio & Powell 1983, 150; Scott 1987, 509; Suddaby & Greenwood 2005, 493 and Bitektine & Haack 2015, 49). Suchman (1995, 574) addresses legitimacy’s level

dynamics cursorily. According to Suchman (1995, 574) an organization may sometimes diverge from collective level values and norms and also preserve its legitimacy if the divergence is considered as one -off. Therefore, it can be argued that legitimacy is like an umbrella evaluation which can occasionally rise above certain adversities, being able to resist single event's effect on it yet being dependent on event series. (Suchman 1995, 574).

Inspired by the previous research and the above-mentioned arguments, this research focuses on one out of the three macrolevel authorities, *media's* power on microlevel legitimacy construction by researching how media coverage related to events during a new industry creation & stabilization effect on microlevel legitimacy construction. In order to fully understand the complexity of the phenomenon of legitimacy construction, an introduction to the existing legitimacy literature from both, industry (Aldrich & Fiol 1994) and individual (Suchman 1995; Bitektine & Haack 2015) perspective is justified. *This paper strives to contribute to further illustrate and explain the complexity of phenomenon of building legitimacy for new industry through researching the role of media coverage / reporting in microlevel legitimacy construction.* More precisely the paper focuses on microlevel legitimacy construction and to the impact, which a macrolevel third party / authority, media has on it.

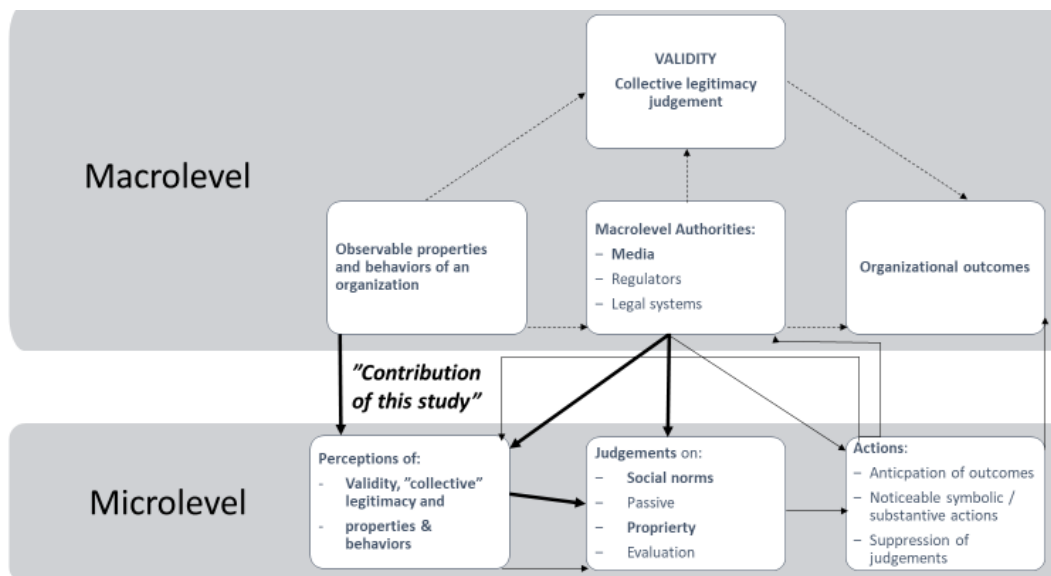


Figure 2 - Multilevel model of legitimacy under conditions of institutional stability, (re-modeled version from Bitektine and Haack 2015, 54 to visualize the contribution of the study)

First this paper provides a brief introduction to existing theories about institutionalization and neo-institutionalization theory. Since the main focus here is to further understand the complexity of constructing microlevel legitimacy for a new industry and how the macrolevel authority, media influences it, it is justified and critical to first deepen the understanding of the theoretical research behind legitimacy by briefly exploring the existing research over institutionalization and neo-institutionalization theory. Followed by a strong emphasis on research about legitimacy, mainly from individuals' perspective, resulting to an entire chapter. Institutionalization is followed by a brief literature review over new industry creation, including research about; industry life cycle model, category creation, entrepreneurship and the impact of media in new industry creation and constructing legitimacy for a new industry, where the legitimacy research is presented from industry perspective. The literature review is then followed by introduction to cryptocurrency market creation through a brief overview of Bitcoin's history between 2009 and 2018 which is followed by the research findings and methodological part.

2 INSTITUTIONALIZATION

The following chapters will provide a supportive structure for this study while guiding towards the first of the two theoretical cores of this study: legitimacy research (the other equally important theoretical core being new market creation presented in chapter 3). The journey to legitimacy starts with introduction of the comprehensive ideologies and theories behind legitimacy studies by first providing an overview about institutionalization (chapter 2.1), followed by an introduction to Neo-institutionalization theory (chapter 2.2) and its core concepts (chapter 2.2.1). An entire chapter, 2.3 with its subheadings is dedicated to introducing the rich existing research over legitimacy in order to deepen the understanding how new market's legitimacy is constructed on microlevel and how macrolevel authorities impact it.

2.1 Introduction to institutionalization research

There are various definitions and descriptions for the term institutionalization. Meyer & Rowan (1977, 341) for example state that institutionalization is a process through which responsibilities, practices and social statuses become correct and approved within a social context. Whereas Zucker (1977, 726) refers institutionalization to both, as a social process and propriety variable, which has different levels, and which influence the cultural persistence. Institutionalization can also be considered as a process which steers towards constructing the reality. As Meyer and Rowan (1977, 341) put it; organizations implement new processes, habits and formal structures because they are taken-for-granted, and because they bring along legitimacy and not because gaining efficiency or following rational choices. This taken-for-granted is then after used as the criterion and justification for the actions and perseverance (Scott 1987, 505). Meyer and Rowan (1977, 340) refer institutions to also a set of cultural rules whereas Lounsbury & Crumley (2007, 996) refer them to “a set of material activities that are fundamentally interpreted and shaped by broader cultural framework”.

Scott (1987, 496) argues that even though there are various definitions existing to institutionalization, most researchers do, however, share similarities in the several ways institutionalization is approached but what polarize the opinions are the specifics. He argues that many definitions consider institutionalization as a public process which results

to individuals' approval of the common description of the reality, taken it, eventually for-granted. (Scott 1987, 496.) Scott (1995, 33) defines institutions as “cognitive, normative and regulative” forms and practices which generate permanency and make sense out of social behavior. He continues arguing that routines, cultures and structures all disseminate institutions operating on various social levels. (Scott 1995, 33; Greenwood et. al. 2008, 30.)

When the term institution is referred as loosely as something social, which is relatively often the case, there is a growing change for misinterpretation and inconsistent term usage, which again undermines the term position in organizational studies (Alvesson & Spicer 2019, 206). Alvesson & Spicer (2019, 206) criticize also more generally the unclear boundaries and loose usage of terminology in institutional research. They suggest that unless researchers put more emphasis on consistent use of institutional vocabulary the terms and concepts may end up to “all-purpose” constructs. (Alvesson & Spicer 2019, 206).

Institutional theory in short explains the consistent similarities in organizational structures and practices with dominant logics (Cooper et. al. 2008, 673-674), institutional isomorphism (DiMaggio & Powell 1983), legitimacy (Suchman 1995) and with institutional change (eg. Dacin et. al. 2002).

2.2 Introduction to Neo-Institutional theory

Currently, neo-institutionalization is argued to be one of the most noted stream of literature inside organizational studies (Alvesson & Spicer 2019, 199). Vogel's (2012, 1028-1030) bibliometric analysis indicates that neo-institutional theory was a minor school of thoughts in 1980s and in 1990s it started growing. In the 2000s it was already the second most dominant theory in the field and after 2010 it dominated the field.

It is widely agreed that neo-institutional theory first saw the light of the day in 1977 (Greenwood et. al. 2008, 2; Alvesson & Spicer 2019, 200). Early neo-institutional theory rests heavily on the publications of the following researchers; Meyer & Rowan (1977: “Institutionalized organizations: Formal structure as myth and ceremony”), Zucker (1977: “The role of institutionalization in cultural persistence”) and DiMaggio & Powell (1983: “The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields.”) These papers argued that formal structures can be viewed as part of myth

(idea) and ceremony which again generates an image of rational and legit actions. These studies also created a base for further legitimacy research arguing that organizations implement new processes, habits and formal structures because they bring along legitimacy and not because of improved efficiency. (Meyer & Rowan 1977, 341; DiMaggio & Powell 1983, 148; Alvesson & Spicer 2019, 200.)

The early neo-institutional studies, between 1977 and 1983, were dominated by research themes such as; institutional isomorphism, cultural persistence and institutional uniformity. It was recognized that both, institutional context, which consist of rationalized ideas and appropriate behavior, and network context have an impact on organizations. (Meyer & Rowan 1977, 353; Greenwood et. al. 2008, 3.) Additionally, it was argued that organizations are influenced by institutional stress and turbulence, especially if the organization's outputs are hard to measure and the used technologies are unclear. Institutionalized organizations were referred as organizations which are susceptible to institutional context. (Meyer & Rowan 1977, 354; Greenwood et. al. 2008, 3.) Organizations were considered to mimic other organization from the same field to gain legitimacy which again was considered to improve the organizations ability to success. (DiMaggio & Powell 1983, 152; Greenwood et. al. 2008, 3.) The level of institutionalization was considered to determine how taken-for-granted and generally approved the actions of an organizations are, it was also considered to define the level to resist change. (Zucker 1977, 726; Greenwood et. al. 2008, 3). Additional emphasis to institutionalization process and how it occurs was given by DiMaggio & Powell (1983, 150). They stated that institutional pressure is the key driver behind the institutionalization process which again constructs from three mechanisms; coercive, mimetic and normative isomorphism (DiMaggio & Powell 1983, 150; Greenwood et. al. 2008, 7).

There were, and still are, few concerns though and term inconsistencies within the neo-institutional research stream. One of the challenges aroused from Meyer & Rowan's (1977, 354) definition of institutionalized organizations where they refer them as organizations with weak market drivers. This automatically steered the focus to only non-profit-organizations and to public organizations run by the government and narrowed down the research scope. As the time approached to the change of the decade, from 70s to 80s, publications from Meyer and Rowan (1983), Tolbert and Zucker (1983), and Meyer and Scott (1983) stabilized neo-institutional theory's position as the leading research stream within organizational studies and widened the scope of institutionalization process as they

noted that markets are institutions. (Greenwood et. al. 2008, 2, 11 and 14; Alvesson & Spicer 2019, 200.)

However, it is argued that DiMaggio's & Powell's book, "The new institutionalism in organizational analysis" (1991), consolidated neo-institutional theory's dominant place within organizational studies. DiMaggio's and Powell's book addressed the most famous papers from the 1977 to 1983 and refined the institutional theory addressing some of the concerns aroused and expanding the scope to organizational field level. The book was an initiatory to the rich forthcoming neo-institutional research. (DiMaggio & Powell 1991, 183 and 267; Alvesson & Spicer 2019, 202.)

Neo-institutional research themes between 1990 and 2008 consisted of illustrating institutional isomorphism and its dynamics, exploring, defining and categorizing legitimacy (eg. Suchman 1995 and Scott 1995), examination of institutional change (eg. Dacin et. al. 2002) and refined approach to institutional logics. These core concepts of neo-institutionalization theory are often approached from macrolevel point of view- "the processes through which large-scale social and economic changes occur" (Lawrence et. al. 2011, 52).

The most essential terms within institutionalization theory, from this research's point of view are; institutional isomorphism, institutional change, institutional logic and legitimacy. A brief overview to the core terms is provided before introducing three of these essential concepts more thoroughly.

In the research field of institutional isomorphism, more and more researchers noted that institutional contexts may construct from rivaling stabilized needs and thus be complex. It was also recognized that organizations are more likely to adjust, comprehend and implement institutional calls rather than merely comply with them. Greenwood et. al. (2008, 17) argue in their Handbook of Organizational Institutionalism that the 1990s was a golden time for agentic research approach which continued to dominate the isomorphism studies until 2010.

Research in institutional change was divided into two schools; to the researchers who interpret that the relationship between regulations and organizations is one and the same with compelling institutional demands and to researchers who interpret a more nuanced approach towards the relationship, allowing a wider scope towards researching institutional change. (Dacin et. al. 2002, 51; Greenwood et. al. 2008, 20.)

Institutional logic is most often defined at the field level without limiting it to include social support. Institutional logics were addressed from two dominant perspectives; the

impact of institutional logics to organizational behavior and the historical dependency of institutional logics. (Greenwood et. al. 2008, 21.)

Additionally, in the mid 1990's the research in the field of legitimacy boomed. Legitimacy was considered as one of the most important elements of institutionalization. As Greenwood et. al. verbalized (2008, 13), the main conjecture of institutional studies is that organizations adapt to institutionalized standards to gain legitimacy and thus advance their possibility to survive and success.

Two of the core concepts above, institutional isomorphism and institutional logic, will be briefly introduced in the following chapter (2.2.1). An entire chapter, 2.3 with its sub-headings is dedicated to introducing the rich existing research over legitimacy in order to deepen the understanding how new market's legitimacy is constructed on microlevel and how macrolevel authorities impact it. All three concepts are still in the core of neo-institutional theory. There are also various other concepts under the neo-institutional theory umbrella, such as diffusion and decoupling which are both heavily linked to isomorphism, institutional change and stability, institutional construction and reproduction etc. However, these concepts are intentionally left without further attention in this study, since the main focus here is to further understand the complexity of constructing microlevel legitimacy for a new market and how the macrolevel authority, media influences it.

In summary, the focus in organizational studies shifted to critical topics, such as; how do new markets and organizational forms emerge, the permanence of market strategies, the interrelation between economic field and organizational behavior and sustainable environmental management. The widened scope also brought concerns related to systematic use of terminology, consistent definitions and setting clear boundaries, valid today. (Alvesson & Spicer 2019, 205; Greenwood et. al. 2008, 22.) However, this has also resulted in wider scope in utilization and adaption of the theory and created a strong base for the forthcoming neo-institutional research (Alvesson & Spicer 2019, 202).

2.2.1 Core concepts in neo-institutional theory

Institutional isomorphism - One eternal question in neo-institutionalization research, which was already raised by DiMaggio & Powell in 1983 (147), is: Why organizations are so similar in terms of practices and structures? Meyer & Rowan (1977, 340) argue that organizations follow public's assessment of what is considered legit and rational, for

example; what composes an appropriate organization? These widely socially shared assessments are referred as rationalized myths (ideas) and ceremonies (practices) (Meyer & Rowan 1977, 340). They also argue that the more organizations follow the widely publicly approved ideas (myths) the more the organizations are institutionalized which again results to institutional isomorphism (Meyer & Rowan 1977, 340 and 354; Boxenbaum & Jonsson 2008, 78).

DiMaggio & Powell (1983, 150) extended Meyer & Rowan's focus of isomorphisms studies from the social level to cover the organizational fields level. They suggested that institutional pressure strives organizations to implement similar forms, practices and structures which results in increasingly homogeneous organizations. DiMaggio and Powell (1983, 150) stated that institutionalization consists of three mechanisms; first one being coercive isomorphism, which occurs when an influential organization, such as city, province or state either persuades or compels to accept and implement an organizational structure. Organizations want to avoid possible sanctions and thus obey the rules, resulting to coercive isomorphism. Second mechanism is labeled as mimetic isomorphism, which is motivated by the conjecture of other organizations success and occurs when insecure organizations imitate the, presumably, successful organizations actions, structures and ways of doing business. The last and third mechanism is normative, which again emerges mainly from professionalization purposes and occurs because organizations want to obey social responsibilities. Organizations' diffusive motivation to adoptive action is elaborated through the mentioned three mechanisms. (DiMaggio & Powell 1983, 150; Greenwood et. al. 2008, 7.)

Greenwood et. al. (2008, 12) highlights that too often isomorphism is considered as organizations similar response to rationalized ideas and practices. When in reality, isomorphism refers to the relationship between the institutional context of an organization and the organization itself, since organizations face various and even inconsistent rationalized ideas which tolerate also various equally appropriate responses. They also share the same view with Meyer & Rowan (1977, 341) and Scott (1987, 505) that organizations implement new forms and practices to gain or improve their legitimacy when after they decouple these implemented forms from their day-today business to maintain competitive advantage in their technological efficiency to survive (Boxenbaum & Jonsson 2008, 93).

In *institutional logics* the emphasis is on the relationship between individuals and organizations in a larger context, such as industries and markets. Institutional logics offer a connection between institutions and actions, since institutional logics outline individuals'

and organizations' behavior and reciprocally individuals and organizations have an impact on shaping the institutional logics. This results in building a link between macro- and microlevel approach. (Thornton & Ocasio 2008, 100.)

Alford & Friedland (1985, referred in Thornton & Ocasio 2008, 100) first introduced the term, institutional logics, to illustrate today's western institutions' ambivalent practices and beliefs. They suggested that there are three rivaling institutional orders; democracy in politics, bureaucracy and capitalism, which all have their own practices and beliefs, and which influence on individuals' engagement in political issues. They continued arguing that all these mentioned institutional orders individually rest on a fundamental logic which steers its organizing ideologies and offers individuals, organizations and groups expressions of motivation and identity. The vocabularies, activities and beliefs are then further developed, amended and used within the social context. (Friedland and Alford, 1991: 232, 248, 251–252).

They further elaborated the construct to cover the linkages between individuals, society and organizations (1991, xx). They suggest that institutions provide operations model, which are based on material procedures and symbolic systems, which again enable individuals and organizations to make meaningful experiences and fulfil their material lives.

Thornton & Ocasio (2008, 102) argue that in order to deepen our understanding about both, organizational and individual behavior, we must understand the wider social and institutional context, which both standardizes behavior and offers possibilities for change. They argue that institutional logics concept provides accuracy in making sense of social mechanism that affect the individual and organizational behavior and how that behavior is positioned within its social context. The concept also emphasizes how institutions' cultural dimensions empower and strain social practices guiding the research towards institutional effects. (Thornton & Ocasio 2008, 121.)

2.3 Legitimacy

Previous research and literature about organizational legitimacy provide various views and descriptions regarding to legitimacy. However only few researchers define the term. In this paper legitimacy is following Suchman's definition (1995: 574): "Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper,

or appropriate within some socially constructed system of norms, values, beliefs, and definitions.”

Level dynamics in legitimacy research have been left with relatively low attention even though legitimacy is a crucial part of institutionalization theory where level aspects are strongly present in society's cross-level interrelations; in institutional stability and change. (DiMaggio & Powell 1983, 150; Suddaby & Greenwood 2005, 6; and Bitektine & Haack 2015, 49). Suchman (1995, 574) addresses legitimacy's level dynamics cursorily. According to Suchman (1995, 574) legitimacy is created subjectively but owned objectively and thus collectively constructed, since legitimacy is a perception which reflects observers' reactions to a certain organization like they see it. Suchman argues that legitimacy is not dependent on single observer or observers, it is rather dependent on the wide social audience. Due to this an organization may sometimes diverge from single observer's norms' belief and values and still preserve legitimacy on collective level, because the divergence has no social disapproval support. Additionally, an organization may also sometimes deviate from collective level values and norms and also preserve its legitimacy if the deviation is considered as one -off. Therefore, it can be argued that legitimacy is like an umbrella evaluation which can occasionally rise above certain adversities, being able to resist single event's effect on it yet being dependent on event series. (Suchman 1995, 574).

Bitektine & Haack (2015, 50) have focused their research on legitimacy's level dynamics and they argue that legitimacy is multi layered. Like Suchman (1995, 574) also to Bitektine & Haack (2015,50) argue that legitimacy consists of several individual's personal and subjective perceptions and legitimacy judgements (microlevel legitimacy), which are later combined and reified to objective, commonly shared, generalized perceptions (macrolevel legitimacy). As mentioned, Suchman only addressed the multilayerness cursorily and did not define the layers nor emphasized their link as Bitektine & Haack do. Legitimacy is often referred as unbiased organizational resource (Johnson 2004, 18; Johnson et. al. 2006, 56; Suchman, 1995, 576) or as feature which is independent from individuals (Golant & Sillince 2007, 1149; Zimmerman & Zeitz 2002, 414), since it reflects the level of general and collective approval. (Bitektine & Haack 2015, 50) The multilevel legitimacy concept will be further introduced in the chapter 2.3.2 Microlevel and macrolevel legitimacy.

In addition to multilayerness there are also multiple different approaches to view organizational legitimacy, from which two main approaches are presented: strategic and

institutional approach. Strategic approach bases mainly to the work of Jeffrey Pfeffer and his research partners (Dowling & Pfeffer 1975, 122; Ashforth & Gibbs 1990, 177-178). Whereas institutional approach bases on DiMaggio's, Powell's and Meyer's work (DiMaggio & Powell 1983, 150-154). Strategic approach emphasizes the critical role of managerial input on the legitimacy process whereas institutional approach highlights the importance of the fields' or sectors' of an entire organizational lifecycle. Where institutionalists consider legitimacy as "a set of constitutive beliefs", strategists consider it as "an operational resource". (Suchman 1995, 576.) Suchman (1995, 578) argues that it is essential to enlarge legitimacy on both viewpoints, emphasizing legitimacy both as steerable asset or as a resource and as a "taken-for-granted belief system", since today's organizations go through the mill by facing both operational encounters and also social and or institutional pressure.

This paper relies on multilayered organizational legitimacy, which can be further divided into three subcategories: pragmatic, moral and cognitive; "legitimacy grounded in pragmatic assessments of stakeholder relations, legitimacy grounded in normative evaluations of moral propriety, and legitimacy grounded in cognitive definitions of appropriateness and interpretability" (Suchman 1995, 578; Bitektine & Haack 2015, 51).

In addition to organizational legitimacy both sociological aspect towards legitimacy and deeper understanding of legitimacy level dynamics are being noted in this paper. Since the research strives to further understand the complexity of building legitimacy for a new market viewed from media coverage angle, it is justified to extend the scope of legitimacy to cover sociological aspects and how media effects on microlevel legitimacy creation as well.

2.3.1 *Legitimacy categories*

As mentioned in the previous chapter "2.3 Legitimacy", there are several ways to approach legitimacy. Term definition, categorization and sub-categories depend all on the researcher in question. The following chapter will briefly introduce most relevant previous literature, from this research point of view, over organizational legitimacy categorization by Suchman (1995). Suchman's (1995) research, including legitimacy definition and categorization has been selected as a base for this study since it supports the purpose of the study; to further understand and describe microlevel legitimacy construction and the effects which a macrolevel authority has on it, by emphasizing appropriateness and

desirability of an entity's actions. Suchman's (1995) research creates also a base for Bitektine and Haack's (2015) study regarding to legitimacy levels or layers and legitimacy components, which will be introduced in the following chapter 2.3.2 Micro-level and macro-level legitimacy.

	Legitimacy category	Sub-category	Explanations Individual's evaluation of:
Audience self interest	Pragmatic Legitimacy	Exchange	Direct usefulness / interest
		Influence	Indirect / more wider usefulness
		Dispositional	Trustworthiness / honesty / values
What is correct and right thing to do	Moral Legitimacy	Consequential	Quality and value of accomplishments
		Procedural	Process to the accomplishments
		Structural	Separate specific process part
		Personal	Leader's charisma
Acceptance / Inevitability	Cognitive Legitimacy	Comprehensibility	Clear and coherent communication
		Taken-for-granted	Only alternative / inevitability

Figure 3 - Legitimacy categories according to Suchman (1995, 571)

Suchman (1995, 571) divides legitimacy into three different categories; pragmatic, moral and cognitive, as seen in the figure 3 above. Pragmatic legitimacy, according to Suchman (1995, 578), bases on audience's self-interests related to: 1. direct exchange, "what's in it for me?", 2. influencing opportunities and 3. organization's dispositional characteristics. Pragmatic exchange legitimacy is the simplest form of legitimacy since it reflects the audience's own interest towards the evaluated organization or industry. Pragmatic influence legitimacy differs from exchange legitimacy with a broader view towards evaluated organization's / market's utility. Thus the evaluated organization or industry does not have to directly benefit the evaluator, it can support the evaluator's interests indirectly and more widely. Pragmatic dispositional legitimacy is referred to preferred characteristics of an organization or industry. Audience evaluates whether the target of

evaluation shares same values, same set of interests as them and whether is can be trusted or are they honest? (Suchman 1995, 578).

Suchman's (1995, 579) second legitimacy categorization is moral legitimacy. Moral legitimacy differs from pragmatic legitimacy by basing on audience's beliefs on what is correct and "right thing" to do, and not on audience's self-interests. Disregarding the rules does not automatically, however, result in sanctions. Some actions which are illegal may yet be morally considered as approved action, if the majority of the public approves it. As an example; speeding, which is illegal but nonetheless approved by the majority of the society, in most cases. Suchman's moral legitimacy category is supported by Scott's (1995) and Adlrich and Fiol's (1994) studies, as it shares similarities with Scott's (1995, 52) normative legitimacy which also bases to values and norms approved and accepted by social environment. It also further supported by Adlrich and Fiol (1994, 648) view about sociopolitical legitimacy, where sociopolitical legitimacy can be evaluated by measuring public acceptance of a new industry or organization. Suchman's moral legitimacy category can be further divided into four forms: 1. Consequential, 2. Procedural, 3. Structural and 4. Personal. Consequential legitimacy refers to audience's evaluation about the organization's and or industry's accomplishments related to quality and value. Procedural legitimacy refers to the process towards the accomplishments. Procedural legitimacy is especially important in scenarios where outcomes are unclear and or hard to measure and thus evaluate. Suchman uses hospital as a case example to illustrate procedural legitimacy; a hospital is unlikely to lose its legitimacy even if a patient would die there, however, it could lose part of its legitimacy in case they would involuntary use exorcism and loose no patients. Thus, the methods to the outcomes are being emphasized. Structural legitimacy emphasizes the organization's structural characteristics related to the job in question. It reflects audience evaluation whether the evaluated organization is the right one for the job. The last form of moral legitimacy, personal legitimacy, bases on the organization leader's charisma. It is argued that personal legitimacy is transient and have low effect in institutionalization. (Suchman 1995, 579-582).

Suchman's third and last category, cognitive legitimacy, refers to the individual's evaluation of understanding why the organization is existing. It also refers to the evaluation whether the organization is considered as necessary, inevitable and generally accepted. Also, cognitive legitimacy category receives support from Scott (1995, 53) as he argues that cultural-cognitive legitimacy reflects the society's awareness and understanding level of an organization. In addition to Scott and Suchman, also Aldrich & Fiol (1994, 648)

argue that cognitive legitimation is the highest form of legitimacy to be achieved and that is when a new product, service, industry or procedure is taken for granted. Cognitive legitimacy can be approached from two different angles: comprehensibility view and “taken-for-grantedness” view. Comprehensibility view highlights the importance of clear and coherent communication to the audience. “Taken-for-grantedness” refers to the most powerful form of legitimacy where the audience cannot think of an alternative for the evaluated organization / industry. (Suchman 1995, 582-583)

All these three legitimacy forms can both support one another or have an exact opposite impact and be a barrier to one another. It is argued that as the time goes by and the new organization or industry becomes legitimate, positive evaluation of a new industry or an organization should either stabilize by staying steady or increase. If the positive evaluation of the new industry or organization increases the industry or organization will be endorsed, and if the positive evaluation stays stable, the industry or organization will be put up with. That is to say, positive evaluation becomes, after a certain level, less critical variable for gaining legitimacy. Regardless of the trend of positive evaluation; stable / increasing, it should either way support the legitimation process (Humphreys 2010, 4).

2.3.2 *Microlevel and macrolevel legitimacy*

Bitektine and Haack (2015) base their research on Suchmann’s definitions about legitimacy and simultaneously bring new aspects and deeper understanding to the level dynamics. Bitektine and Haack (2015, 50) define legitimacy as “a social evaluation made by others”. This statement is also in accordance with Suchman’s (1995, 574) view where legitimacy is created subjectively but owned objectively and thus collectively constructed, since legitimacy is a perception which reflects observers’ reactions to a certain organization like they see it. Although Bitektine and Haack (2015, 51) do challenge whether legitimacy is always created subjectively, on personal-level only, since they argue that most often public actors, such as associations, organizations and governments are the ones who act upon shared legitimacy judgement. And therefore, it is justified to argue that legitimacy evaluations and judgements do not only occur on personal- / microlevel, but it also includes evaluation of collective actors on macrolevel. (Bitektine & Haack 2015, 50-51).

As mentioned previously, both Suchmann (1995, 586) if cursorily and Bitektine & Haack (2015, 50-51) argue that legitimacy is multilayered. Bitektine & Haack argue further that legitimacy constructs from two layers; microlevel and macrolevel. Microlevel legitimacy, according to the researchers, refers to propriety which presents individual-level evaluations and judgements about whether an organization, its practices and actions are appropriate and desirable. Whereas macrolevel legitimacy refers to collective level validity, which again represents the level to which an organization / industry is considered unanimously as appropriate in its social context within the collect level evaluators. Validity can be gained by influencing on the majority and also by receiving validation from powerful macrolevel actors, such as media, government or legal representatives. (Bitektine & Haack 2015, 67). Thus, it can be argued that in addition to multilayerness, there are also two components; validity and propriety, which have an effect on legitimacy construction on different levels. (Bitektine & Haack 2015, 51; Johnson et al.2006, 55; Tost 2011, 689.) The layers and components are further introduced in the next figure number 4.

Bitektine & Haack (2015, 51) define propriety as the judgement of acceptability and appropriateness by an individual evaluator, a microlevel creation. Validity is defined as a wide public consent about legitimacy, present at organizational-, group or society level and therefore a macrolevel creation. In order for an individual evaluator to generate legitimacy judgements, he / she first forms perceptions about 1. Evaluated organization, its actions properties and behaviors and 2. Validity beliefs, which again refer to the individual evaluator's assumption about the collective- or macrolevel validity the evaluated organization intangibly possesses. (Bitektine & Haack 2015, 51; Tost 2011, 689.)

The structure of validity simply shows the influential mechanism of macrolevel legitimacy judgements on individual evaluators. It is argued that individual evaluators obey guidelines, principles, values and norms which they consider are standard even though they would be in contradiction with their own opinion. There are strong implications that personal level evaluations are greatly affected by collective level authorities' opinions. Muchnik, et al. (2013, 647) state that people rely on other people's reviews and appraisals when making decisions for example about which book to read next, which hotel to reserve for the upcoming trip or which political candidate to vote for in the next elections. This trust to other people ratings is also present when we consider which stories and news are worth our time. Since individual evaluators heavily depend on collective level validity when generating their own propriety judgements, it can be argued that validity is the most

critical and one of the most powerful heuristic component of legitimacy. (Bitektine & Haack 2015, 519).

According to Bitektine & Haack (2015, 52) macrolevel authorities are institutions, such as media, juridical systems and governments. These authorities have become substantially influential sources of validity, which again impacts on individual evaluators' opinion, judgement and attitude. Collective legitimacy judgments are most often competed within the macrolevel authorities; media, regulators and legal systems. Each authority has its own set of competition regulations, competing methods and preferences of how to record the validated texts. As an example, the share of voice usually defines individual evaluators' impression of validity or validity belief, when it comes to media. It is worth of mentioning that all macrolevel authorities consist of individual evaluators, such as reporters, public servants, officers and adjudicators, and thus the same legitimacy judgement process applies also to these individuals who work on a collective level as does to the individuals who make legitimacy judgements on personal-level. The collaboration regarding to collective legitimacy judgements between macrolevel authorities increases the complexity of judgment validation process. (Bitektine & Haack 2015, 52).

The figure below, adapted from Bitektine & Haack (2015, 54) multilayered legitimacy structure, describes how macrolevel authorities' creation, validity, impacts the individual evaluator's propriety judgements and vice versa, under institutional stability.

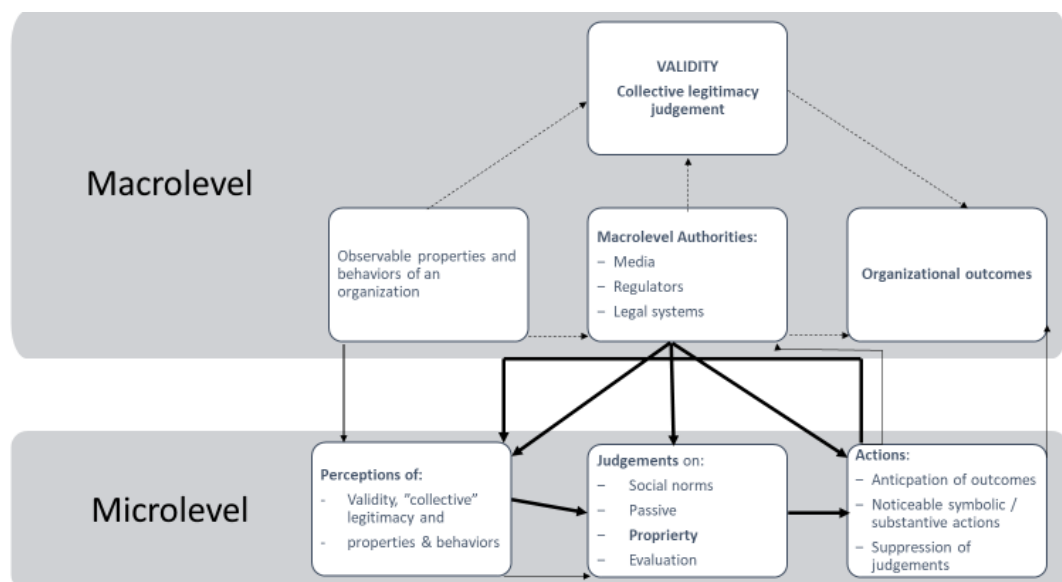


Figure 4 - Adaption of Bitektine & Haack (2015, 54) multilayered legitimacy structure under institutional stability

Bitektine & Haack (2015, 55-56) argue that legitimacy process is subject to top-down effects under institutional stability circumstances. At microlevel, an individual evaluator first forms perception about 1. Evaluated organization, its actions properties and behaviors and 2. Validity beliefs, based on the macrolevel authorities' legitimacy judgements, their communication regarding to it and based on the argumentation and actions of other individual evaluators in their instant social environment. Bitektine & Haack (2015, 55-56) argue that under institutional stability, even though the propriety perception is generated independently by the individual evaluator, the propriety judgements are automatically affected by the macrolevel authorities' views and judgements.

While the environment remains institutionally stable the macrolevel authorities do not have to worry about dissent between them and the individual evaluators' opinions. Bitektine and Haack (2015, 56) explain this argument with low media attention, low volume in new regulations and low demand of legal system interventions, since the organization / industry is already considered as appropriate, acceptable and maybe even desirable. The role of macrolevel authorities under institutional stability is therefore mainly to communicate their validity judgments, which norms to follow and to fine for diverging actions. However, the bottom-up impact of microlevel evaluators on the macrolevel authorities remains with relatively low under the institutional stability. (Bitektine & Haack 2015, 56).

Bitektine & Haack (2015, 57) argue that the bold arrows circling between micro- and macrolevels in Figure 4 form an "institutional stability loop", which again present the most powerful linkages under institutional stability forming a positive feedback instrument which enhances the stability in the legitimacy process. In other words, the more widespread the collective legitimacy judgement in institutional context is, the more individual evaluators take recommended norms by macrolevel authorities for granted in their propriety judgements, and the fewer diverging opinions are presented the more homogeneous the presented individual evaluators' legitimacy judgements are. The more homogeneous those judgements are the greater their validity beliefs are. (Bitektine & Haack 2015, 57)

Bitektine & Haack (2015, 57) describe that individual evaluators are likely to silence their diverging judgements if the sanctions are serious and act as a standard consequence from irregularity actions. However, the more there are individual evaluators with diverging opinions who are oppressed to share the collective legitimacy judgement, at least pub-

licly, the more the environment is susceptible to institutional change, uprisings and destabilization. Bitektine & Haack characterize institutional stability as the level of silenced variance in legitimacy judgements. The individual evaluator may be influenced by one or more “suppressor factors” which again stress the individual evaluator’s assessments by suppressing the diverging judgements and supportively guiding the evaluator towards the collective legitimacy judgement. (Bitektine & Haack 2015, 57;63).

In contradiction to the legitimacy process under institutional stability, the legitimacy process under institutional change emphasizes the individual evaluators’ judgements and assessments rather than the collective legitimacy judgement, validity. This is especially the case if the macrolevel authorities have contradictory legitimacy views about the evaluated organization / industry. Thus, the more the macrolevel authorities’ vies are conflicting with each other the less there is unanimity and the less there is consensus the less the individual evaluators rely on the validity. (Bitektine & Haack 2015, 58). The following figure represents the complexity of legitimacy process under institutional change.

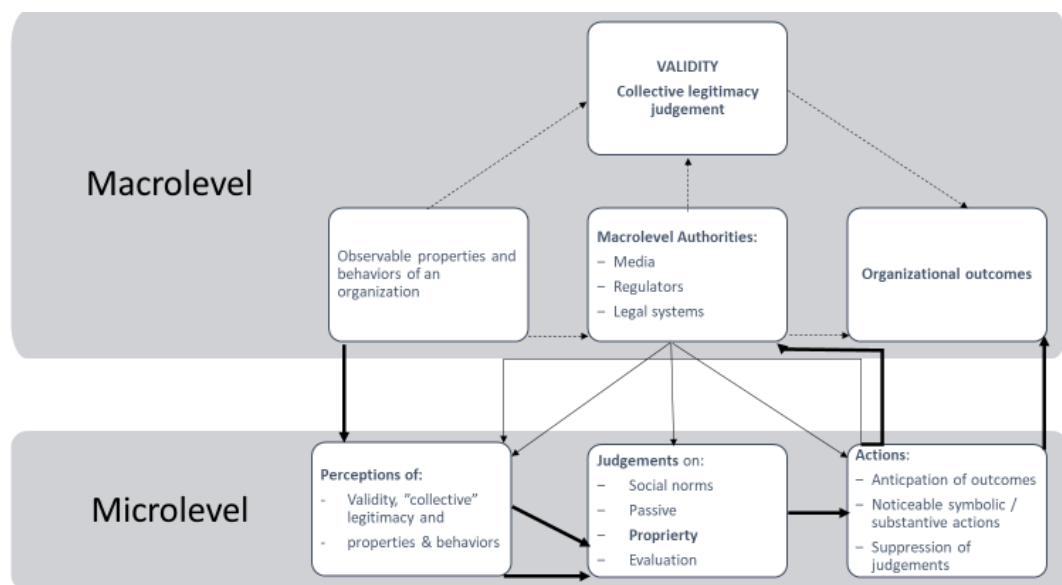


Figure 5 -Adaption of Bitektine & Haack (2015, 58) multilayered legitimacy structure under institutional change

Independent evaluators’ propriety judgements may become key drivers for institutional change by challenging the legitimacy of validity and thus raising a thought of illegitimacy (Bitektine & Haack 2015, 58). Haack et al. (2014, 651) state that impression of

illegitimacy may encourage individual evaluators to involve in actions supporting institutional change and to resist the present common order. Therefore the “institutional stability loop” which was dominant under the conditions of institutional stability is now inactive or at least remarkably weaker. On the contrary, under the conditions of institutional change, the links between individual evaluators’ perceptions, judgements and actions are highlighted. (Bitektine & Haack 2015, 58).

2.3.3 *Gaining, maintaining and repairing legitimacy*

According to Suchman (1995, 577) legitimacy management bases greatly on communication, more precisely to communication between the organization and its several publics. Schultz et al. (2014, 34) agree and state that for new market categories legitimacy builds and develops through information sharing among the market parties which is further shared by the media. Awareness is the key driver for gaining legitimacy in new markets. (Schultz et al. 2014, 34)

Suchman (1995, 591) claims that pragmatic legitimacy is the easiest form of legitimacy to gain and manipulate since it links directly to communication and information exchange between organizations and the constituents. The most common form of this kind of communication is advertising where an organization gives promises for the individual evaluator about the product and or services. Suchman 1995, 591). For gaining moral legitimacy Suchman (1995, 592) argues that organizations should try to generate and express their technological success, thus superior technological performance generates consequential legitimacy and also other dynamics of moral legitimacy as a spillover effect. Regarding to cognitive legitimacy Suchman (1995, 589) argues that new organizations are likely to gain it through standardizing their processes and procedures, by auditing the processes publicly and linking them to superior authorities.

Legitimacy can also be pursued by mimicking the most noted and accepted organization in the given industry field where uncertainty is likely to be a trigger to mimicking behavior. (DiMaggio & Powell 1983, 151; Suchman 1995, 589). Mimicking can occur also in new industry sectors where no models are yet established. Pioneers can however, defend their cognitive legitimacy “by conforming to prevailing heuristics.” (Suchman 1995, 589)

Desai’s (2011, 265) view about legitimacy spillovers is in line with DiMaggio & Powell’s and Suchman’s views about mimicking as he argues that similarities between an

organization under evaluation and existing ones enhance the legitimacy transfer, in other words legitimacy spillovers. However, Haack et al. (2014, 636) question whether similarities are always the explanation to legitimacy spillovers. They challenge that similarities do not explain why negative spillovers have a greater impact on individual evaluators compared with positive ones. Haack et al. (2014, 636) illustrate that a sensational story about an organization's activities affects an individual evaluator more than media coverage about organizations positive outcomes. Another challenge arises from the differences between the organizational characteristic which makes the comparison challenging. Individual evaluators then rest heavily on categories and not on direct similarities.

Haack et al (2014, 636) argue that bottom-up legitimacy spillovers rest heavily on affect heuristics, more precisely on positive and negative feelings about the evaluated organization / industry. This can be reflected to and illustrative example of a cryptocurrency market, where if one organization faces a cyber safety scandal the whole market suffers from the doubts of individual evaluators. It is not because cryptocurrency organizations have similar business functions or features, it is because the one cryptocurrency organization has raised unpleasant feelings such as, fear, insecurity, disappointment etc. and feelings stick. Affect heuristics do apply also in positive sense when feelings, such as pride, desire and pleasure generate positive legitimacy spillovers. (Haack et al. 2014, 636).

Bitektine & Haack (2015, 62) have also contributed to the legitimacy gaining and maintaining literature; They state that organizations can try to control legitimacy by suppressing judgements. They base their argument to the model of legitimacy structure and process presented in the chapter 2.3.2. Microlevel and macrolevel legitimacy. The Model suggest that under circumstances of institutional stability, the more individual evaluators are supported to stay in passive mode, avoiding all mental effort to reassess the legitimacy judgement the more stable the institutional environment is. Therefore, prevention of cognitive assessment towards the legitimacy judgements by concealing important information which can trigger resistance or by misleading the individual evaluators with some irrelevant topics to center the evaluators' focus elsewhere while tackling the real issue, can occasionally save the unpleasant situation of illegitimacy. (Tost 2011, 697; Bitektine & Haack 2015, 62). The majority of the suppression features represent a remarkable loss for the individual evaluators if they present a diverging opinion. This usually leads to a situation where the losses of presenting a diverging opinion are much higher than the benefits of doing the opposite and therefore, the individual evaluator usually does not

reveal the diverging view but rather selects to publicly share the collective legitimacy judgement. In addition to sanctions, suppressing judgements can also be motivated through incentives, such as social and economic rewards. (Bitektine & Haack 2015, 62-62).

Suchman (1995, 597) argues that legitimacy is easier to maintain than it is to gain or repair. Yet deviances, external threats, failures in mimicking and in innovations are all still risky from legitimacy's point of view even in the most institutionalized organizations particularly if the trial occur in series of events or the organization in question does not tackle the issues within reasonable time frame. Gaining and repairing legitimacy share several similarities, however repairing legitimacy is often a reactive reaction to an unexpected issue and requires immediate actions. (Suchman 1995, 597). It has to be noted that treating legitimacy as if it was to be managed has received criticism of oversimplifying the term. This provides a risk of being associated with marketing methods and fully understanding the multiplicity and complexity of the phenomenon. (Nielsen and Rao 1987, 525; Greenwood et. al. 2008, 13.)

3 EMERGING INDUSTRIES

The following chapters will continue providing a supportive structure for this study while guiding towards the second theoretical core: new industry creation (the other equally important theoretical core, legitimacy, was presented in chapter 2.3). The following chapters will introduce new industry research (chapter 3.1) through brief overviews about industry life cycle model (chapter 3.2), category creation (chapter 3.3.) and entrepreneurship and legitimacy within institutional context (chapter 3.4). The two theoretical cores, legitimacy and new industry creation are later combined in chapter 3.4.1, How to gain legitimacy within new industry. As the purpose of this study is to deepen our understanding how micro-level legitimacy is constructed within a new industry and how macrolevel authorities impact it, a separate chapter 3.4.2 is dedicated to media's role in legitimacy construction.

3.1 Discussion about new industry creation research

Institutional theorists provide three ground variables through which they try to explain how new organizational forms emerge. The first element is increasing knowledge of legitimacy, which refers to the interdependence of legitimacy and desirability/attractiveness/being appropriate. (Suchman 1995, 574 and Suddaby & Greenwood 2005, 35.) The second element is the link between institutional change and the changes in institutional logic. The third element is the dependence changes in institutional logic and the persuasive language / rhetoric. (Suddaby & Greenwood 2005, 35.)

One of the most common definitions of industry; a set of organizations which manufacture likely similar products, origins from industrial economics (Porter 1980). Forbes & Kirsch (2011, 591) share the definition, acknowledging that the term has received criticism about being too product oriented. Forbes & Kirsch (2011,591) refer emerging industry as “the intersection of a unit of analysis and a temporal interval” where the industry is the unit of analysis. Whereas emerging industries are referred as industries at their initial phase of the evolution. The emergence of an industry resembles the first stage in industry life cycle (presented in chapter 3.1). (McGahan et al., 2004; Forbes &v Kirsch 2011,591.)

The time period of the first stage of emergency can vary from two years to tens of years depending for example about the industry. It should be noted that the boundaries of the emerging stage are debatable, however, it is widely agreed that the emergent stage includes at least the first years right after the founding of the industry. It should be also noted that not all organizations and or industries continue existing to witness the entire life cycle, reach the maturity stage nor gain legitimacy and thus decrease. (Forbes & Kirsch 2011,592.)

Hannan & Freeman (1986, 69) argue that industry size effects on the founding and abandoning rates of new organizations. They argue that is the industry is small, the rates of new emergent organizations is lower and the rates of abandoning organizations is higher. Institutional theorists, such as Meyer & Rowan (1977, 342) would explain the phenomenon with the lack of legitimacy, since at the earliest stage, organizations do not possess legitimacy “due to their small numbers”. (Aldrich & Fiol 1994, 646.)

Economic researchers have criticized the ecologist view about legitimacy arguing that the entry and exit rates are the outcome of the contest within the industry (Delacroix et al. 1989, 245). Whereas ecologist researchers have criticized economic approach of being too focused on risks and trade-offs and neglecting the social and institutional context where the situations occur (Aldrich & Fiol 1994, 646). Aldrich & Fiol (1994, 647) state that there are findings which support that industry growth is influenced also by other than entirely technical and or economic factors.

It has been criticized that there is a desperate need of further research in emerging industry studies since the crucial phenomenon has been left with relatively low attention. Forbes & Kirsch (2011, 589-590) for example state that emerging industries are problematic to research empirically since they are often recognized only after they have matured. Additionally, as mentioned earlier, several industries do not succeed and thus make it even more difficult to explore the failed industries. Forbes & Kirsch (2011, 592) state that during the last twenty plus years the amount of related industry level articles within entrepreneurship studies has been less than 10%. However, the phenomenon remains essential, since from political perspective new industries rejuvenate financial growth, improve employment rate and empower the technological development. Yet, there remains an information gap how governments and, or states could encourage and outline the emergence of new industries (Romanelli 1991, 80). Spencer et. al (2005, 322) argue that further research is critical to increase and deepen our knowledge about the correlation between private and public sector constituents across industries. He also emphasizes that since the

phenomenon is complex, it is likely that there are differences in the answers between countries. Forbes & Kirsch (2011, 590) summarize the need of further research to better understand how government officers and business managers can interact in emerging industries.

In addition to industry definition, also one of the most widely known and accepted models of industry life cycle, which is briefly described in the next chapter, has also its root in industrial economics. (McGahan et. al. 2004, 2-3.)

3.2 Industry life cycle model

McGahan et. al. (2004, 2-3) describe the industry life cycle model as four stage approach to view the industry's creation to its maturity and disease. The stages are: fragmentation, shakeout, maturity, and decline.

According to McGahan et. al. (2004, 2-3) the first stage is *fragmentation* which occurs since organizations test alternative technologies to find the best business approaches which in time would be in the dominative position in the field. Time filters the approaches so that the most scalable and efficient approach becomes the dominant one. The supremacy of the model is also subjected to the individuals' and or organizations' capabilities to spread the word of the business model to the core customers, investors, suppliers and other critical parties. Scarce resources can steer organizations to co-operate vertically whereas low volumes delay and make technical efficiency improvements more difficult to execute.

While the supreme model evolves the industry goes through the second stage; *shakeout*, during which unlike organizations are compelled to exit. Thus, shakeout stage occurs during the period of dominant approach. McGahan et. al. (2004, 2-3) argue that the rise of the dominant approach is essential for the industry to develop, survive and succeed since the efficient and scalable dominant approach brings along possibilities to reach economies of scale. As organizations exploit the efficient approach the sales volumes grow across the industry. Organizations that are unable to implement the efficient model will face substantial pressure from their contestants and if they cannot tolerate the pressure nor meet the demand cost-effectively, they are forced to exit, shakeout. (McGahan et. al. 2004, 2-3.)

At some point organizations can no longer increase their efficiency by obeying the dominant model since the technical efficiency reaches its top and the volume growth reaches the level when the returns at high rates no longer increase. Organizations may try to increase the efficiency by outsourcing or cutting product lines. Thus, the industry has reached to the third stage; maturity. Maturity phase is argued to be relatively feasible and profitable for the organizations which have survived to witness the phase. (McGahan et. al. 2004, 2-3.)

The fourth stage; decline is entered when the cumulative sales volumes eventually drop due to exhausted supply or saturated demand. At this stage the competition may end up fierce since no single organization can benefit from volumes without doing it at the expense of others, and thus the contest turns up to zero-sum game. One method to survive in the fierce competition is to form strategic alliances or through mergers and acquisitions. (McGahan et. al. 2004, 2-3.) All four stages affect how organizations shape, contend and utilize technical developments. (McGahan et. al. 2004, 2-3.)

3.3 Category creation

Schultz et. al. (2014, 50) argue that the key element to understand the emergence of new industries is to understand market category creation. They have researched new market creation from market category creation's point of view by collecting data from media such as; news, press releases, general press etc. and also about the quantity of new market entries. They observe that an increase in positive communication of a specific industry also increases the amount of new market entries for the industry in question. Schultz et. al (2014, 50) illustrate the situation with an example from communication technology market; the more telecommunication business reached extensive awareness about the advantages of broadband technology among the consumers and businesses the more the companies within the market started exploiting the opportunities and generated new business models and received investments from investors.

Schultz et. al. (2014, 50) argue that also negative media coverage about the industry has an impact on the new market creation, since it can act as an illegitimacy driver and thereby decrease the amount of new entries to the market. They argue that in case of negative publicity, even heavy investments to the market do not automatically save the situation since if the individual evaluator has been left with any kind of doubt regarding

to the market size and its potentiality it may hinder the legitimation process. These possible doubts are also attractive from media's point of view because of wide audience interest and are most likely published several times even after the situation is dealt with, which again increase the doubts within the social system. (Schultz et. al. 2014,50).

Category is formed as information about the expanding market is shared within the social network and new entrants connect with each other. Media, a macrolevel authority, has a critical role in the information sharing process, increasing awareness, recognition and linking these new entrants to each other and thus forming a group of new entrants which decreases the level of suspicion and is the start of the category formation. (Kennedy 2008, 277.) Kennedy et. al. (2008, 270) argue that referring to competitors in press releases or in other media publications has a positive impact to nascent entrants' category and also legitimacy construction, since then the audience can recognize a new market category under formation. They continue that as the references to competitors in the more mature state do no bring the same advantages as in the early days, moreover it can cause more harm by raising awareness about the competitors. (Kennedy 2008, 270.)

3.4 Entrepreneurship and legitimacy within institutional context

According to Aldrich & Fiol (1994, 647) emergence of new industries arises from successful entrepreneurship, where entrepreneurs recognize the existing opportunities and successfully exploit them. They continue arguing that all entrepreneurs confront challenges such as recognizing the business opportunities, gathering capital and human resources, training and maintaining the skilled employees and that all these actions are subjected to interaction and collaboration between organizations and individuals. However, pioneering entrepreneurs within an entirely new industry are also challenged by the liability of newness, lack of awareness and reliability which again create the base for proper interaction. This results in multiplying the level of challenges confronted, since raising funds, accessing markets and gaining governmental approval all require recognition, creditability and ultimately industry level legitimacy. Legitimacy is considered as tool to conquer the liability of newness, and thus essential also in the earliest days of a new venture. (Aldrich & Fiol 1994, 647; Zimmerman & Zeitz 2002, 414.)

As mentioned in the introduction to emerging industry, chapter 3.; when the size of the industry is small, the rate of new emergents is low whereas the rate of abandoning

organizations is high. This was explained with lack of legitimacy, since at the earliest stage, organizations do not bring along legitimacy to the industry “due to their small numbers”. (Aldrich & Fiol 1994, 646.) It is suggested that at the initial stage of industry emergence the number of organizations within the industry is relatively low, the organizations have to construct their roles and structures without being able to follow one’s example. They also have to interact and network within an environment where their existence is questioned. This results in lowering the chances of survival. (Aldrich & Fiol 1994, 646.)

While the industry grows with number of new entrants so does the legitimacy. Aldrich & Fiol (1994, 648) suggest that legitimacy is divided into two equally critical dimensions; cognitive and sociopolitical legitimacy. Cognitive legitimacy is referred as the level of public awareness of the organization. The highest cognitive legitimacy score is achieved when the new organization its services and or products are taken-for-granted. Aldrich & Fiol (1994, 648) elaborate that an organization knows that it has reached the status of cognitive legitimacy when the new entrants and or the existing competitors start mimicking their approach rather than testing alternative approaches. From end user perspective, cognitive legitimacy level is reached when the awareness of the organization and its services and or products has been widely spread within the population. The second dimension, sociopolitical legitimacy refers to the process of gaining public approval from government, key influencers and stakeholders within the existing rules, laws and norms. Sociopolitical legitimacy can be measured by evaluating the social acceptance of the industry. Aldrich & Fiol (1994, 648) argue that the two dimensions are equally important since an organization and or industry may be legally accepted within the existing norms and laws and yet fail due to low level of cognitive legitimacy. Widespread awareness and taken-for-grantedness empowers also maintaining the backing of key stakeholders.

The lack of legitimacy or even illegitimacy view towards a new market is thus a serious barrier for a nascent organization. In addition to that they face challenges such as lack of skilled employees, lack of credibility which also impact the ability to raise capital from unconvinced investors. (Aldrich & Fiol 1994, 645) Aldrich & Fiol (1994, 645) argue that lack of legitimacy is one of the most serious challenges the nascent market can face as it affects the individual evaluators, such as stakeholders, consumers and entrepreneurs and may hinder the formation of rules and institutionalization. They continue that new organizations which stand alone cannot rest on extrinsic legitimacy provided by the existing institutions. (Aldrich & Fiol 1994, 646.)

According to Gartner & Low (1990, 18) gaining legitimacy is a social process which is shaped by personal interactions of attaining trust within the organizational constituencies. Achieving collaboration with limited awareness or evidence requires trust and credibility. When the awareness grows together with the observable evidences the more people rely on the reputation of the entrepreneur or organization, resulting all the way to the new industry. Aldrich & Fiol (1994, 651) argue that trust is one of the key factors of survival in the earliest stage of entrepreneurship of a new venture, since there is absolutely no prior evidence nor information about a similar venture. In the new emerging industry field, the entrepreneurs have to construct “trust within a vacuum” by exploiting all possible personal resources, competences and characteristics. They have to interact and collaborate with parties which question their initial existence. Without prior example to compare with, its all about trusting the entrepreneur, new organization and industry. (Aldrich & Fiol 1994, 650.)

As mention earlier, new organizations which stand alone cannot rest on extrinsic legitimacy provided by the existing institutions. (Aldrich & Fiol 1994, 646.) Thus, they have to focus on “framing the unknown in such a way that it becomes believable” (Dees & Starr 1992, 96; Aldrich & Fiol 1994, 651)

3.4.1 How to gain legitimacy within an emerging industry? - Organizational Strategies

When new organizational forms and activities emerge, they do not necessarily fit smoothly into existing images of acceptable business practices. There may not yet be code of conduct for publicly legitimate and appropriate behavior nor related regulation. (Aldrich & Fiol 1994, 663; Kennedy 2008, 271; Schults et. al. 2014, 35). Therefore, it can be argued that for new market pioneers, who have penetrated entirely new market area and business field, where there are none or only few other firms and where business practices, strategies and regulations are yet to come and are developing, achieving legitimacy is a challenging process. (Navis & Glynn 2010, 439; Schults et. al. 2014, 35)

There are various methods, models and strategies suggesting how new industries and markets can gain legitimacy. According to Kennedy (2008, 271) the more organizations in an entirely new industry interact and communicate the stronger their embedded cognitive network constructs. The embedded cognitive network enables the categorization, which again, according to Kennedy is a key driver in new market creation and in gaining

legitimacy for it. He continues that cognitive embeddedness supports the legitimacy construction by transforming the abstract and intangible market into something real. (Kennedy 2008, 271.) Whereas Zimmerman & Zeitz (2002, 414) argue that strategic actions by an organization or a founder may result to legitimacy, which again create other resources and enables organizations' and or industry's survival and growth.

Whereas Aldrich & Fiol (1994, 649), mentioned in chapter 3.3, divide legitimacy into two equally critical dimensions; cognitive and sociopolitical legitimacy. They have further developed the categorization and divided the new industry emergence into four stages for which they propose different strategies how to gain both cognitive and sociopolitical legitimacy.

New industry emergence stages	Cognitive	Sociopolitical
Organizational	Raise awareness with symbolic behaviour and language	Create trust with internally consistent stories
Intraindustry	Raise awareness with imitable dominant model	Create assumptions of creditability by encouraging to collective action
Interindustry	Raise awareness through third parties	Create reputation by raising awareness and negotiating with other industries
Institutional	Raise awareness by connecting the industry to existing education	Create legitimacy with collective marketing and lobbying

Figure 6- Strategies for gaining legitimacy for a new industry (amended from Aldrich & Fiol's 1994, 649)

As an *organizational strategy* for gaining cognitive legitimacy Aldrich & Fiol suggest raising awareness using symbolic behaviors and language. They continue suggesting that entrepreneurs within the nascent industry who can act as if their venture is the new dominant model and frame topics with highly abstractive topics, can better convince the public of their venture's validity. Aldrich & Fiol (1994, 651) argue that the wider the venture is framed the more credibility it gains. The charismatic founders, however, have no extrinsic validation arguments and thus, they have to utilize different communication methods, such as story telling and persuasive rhetorics to achieve in their mission. The founders should balance their communication regarding to their venture's differentiation, since

radical differentiation would also mean challenges in fitting into existing forms and practices, yet again, a critical level of differentiation is also required to justify the venture's competitive advantage. Radical pioneering stories are to be told only after the industry has stabilized. (Aldrich & Fiol 1994, 652-653.) To gain sociopolitical legitimacy Aldrich & Fiol (1994, 649 and 653) suggest building trust by "maintaining internally consistent stories" and communicating likely similarly to larger audience about the new venture.

According to Aldrich and Fiol (1994, 653) intraindustry strategy is an important next step towards comprehensible legitimation. After constructing the trust and a basic level of understanding on the organization level the pioneers should develop a communication strategy addressed to fellow organizations in the emerging industry to spread the technology and knowledge which again would support the new industry. For *intraindustry* strategy to gain cognitive legitimacy Aldrich & Fiol (1994, 649) suggest raising awareness with easily imitable dominant model. Imitability is a two-edged sword since from the industry's perspective the easier the dominant model is to imitate the faster the industry grows and thus, gains legitimacy. However, from a single organization's perspective the easier their model is to imitate the more it brings along competitors and weakens their survival chances. It is commonly argued that later new entrants benefit from the pioneers' research & development and thus they may outperform the pioneers advancing from the technological development and dynamic learning. (Aldrich & Fiol 1994, 654-655; Covin et. al. 2000, 177.) The result of the imitability strategy is dependent on the number of new entrants and the rate of the exits, in other words; market growth (Aldrich & Fiol 1994, 655). What is notable is that even though the emerging industry's legitimacy strengthens it does not guarantee it will be divided equally among the founding organizations, some might benefit and gain more legitimacy than others depending on their technical superiority, reliability and public awareness (Aldrich & Fiol 1994, 654).

For a new industry to gain sociopolitical legitimacy Aldrich & Fiol (1994, 649) suggest creating assumptions of creditability by encouraging to collective action. Van de Ven & Garud (1991, 349) support this suggestion since they argue that in high technology industry, the innovations are likely to be sought within a small group of individual actors who attend to same conferences, technology fairs and events and thus interact within the same social context and circles. If the individual actors can defeat the challenges of collective action, they can together form an influential network which actions may generate legitimacy and thus they "can rise above the level of their individual ventures and run together "in packs"" (Aldrich & Fiol 1994, 654).

The third strategy, *interindustry* is again divided into two approaches, how to gain cognitive and sociopolitical legitimacy for a new industry. Aldrich & Fiol (1994, 649) suggest that cognitive legitimacy can be pursued by raising awareness through third parties, such as trade associations. They argue that a new growing and developing industry may receive hostile feedback and lack of recognition from the other industries if they see it as a threat. Therefore, low level of cognitive legitimacy may occasionally be useful, since then the venture is not taken seriously and thus is not seen as threat which again provides more peaceful working conditions. Close collaboration with trade associations is useful since they embody the industry, introduce the industry to state and government officials and act as a key player in case of crisis. (Aldrich & Fiol 1994, 656-658) For gaining sociopolitical legitimacy Aldrich & Fiol (1994, 649) suggest creating a reputation by raising awareness and negotiating with other industries. They argue that sociopolitical acceptance is more likely in case large enough number of founders unite and together create a feasible and taken-for-granted reputation for the industry.

According to Aldrich & Fiol (1994, 659), in case the founders within a new industry have successfully developed trust and credibility, provided a critical level of growth with imitability and together constructed a taken-for-granted reputation for the industry, a base for institutional level legitimacy has been set. Institutional level legitimacy can only be gained through collective collaboration with trade associations, alliances, industry bodies and other collective parties. Since institutional environment can restrict the level to which new industry knowledge diffusion is spread, Aldrich & Fiol (1994, 649) suggest raising awareness by connecting the new industry with educational bodies. The linkage between educational organizations and industry is critical also from economic perspective, since by educating people the industry, in exchange for skilled labor, provides vacancies. The lack of institutional support in spreading the industry knowledge may result in lowering the chances of sociopolitical acceptance. For a new industry to gain sociopolitical legitimacy at institutional level Aldrich & Fiol (1994, 649) suggest collective marketing and lobbying efforts. Collective marketing and lobbying can be critical in sense of spreading the word of the new industry within the government agencies and thus in gaining sociopolitical acceptance. Aldrich & Fiol (1994, 661) however argue that awareness about new industry's long-term outcomes and actions do not automatically ensure sociopolitical approval, since in case the new industry is considered to threaten the existing activities of an older industry, it may receive substantial resistance. (Aldrich & Fiol 1994, 661.) Even though the emerging industry's legitimacy strengthens it does not

guarantee it will be divided equally among the founding organizations, some might benefit and gain more legitimacy than others depending on their technical superiority, reliability and public awareness.

To summarize, these mentioned strategies are intertwined hierarchically. Creating trust between the key actors provides a base for raising awareness with alike organizations. This again lowers the possible threshold for collective actions and provides a base for collective reputation building and marketing efforts. A taken-for-granted reputation again provides the base for institutional legitimacy. (Aldrich & Fiol 1994, 663.)

3.4.2 Media's role in legitimacy construction

When new organizational forms and activities emerge, they do not necessarily fit smoothly into existing images of acceptable business practices. There may not yet be a code of conduct for publicly legitimate and appropriate behavior nor related regulation. (Aldrich & Fiol 1994, 663; Kennedy 2008, 271; Schults et. al. 2014, 35). When something does not fit into existing views media's role as sensemaking driver is being emphasized (Kennedy 2008, 272). Aldrich & Fiol (1994, 660) argument is in line with this as they claim that media publications increase awareness which again increases legitimacy. However, at the earliest stage of the industry emergence, the number of organizations within the industry is so low that most likely there is no generally known industry specific vocabulary and thus, the journalist may use inconsistent and imprecise terms while describing the ventures, their activities or innovations. This may cause misunderstandings and in ambiguous judgements. It is also indicated that when media refers to several nascent organizations within the same industry in the same article, it simultaneously starts creating the new market category. (Kennedy 2008, 272)

Humphreys (2010, 5) illustrates mass media's impact on legitimacy construction with an example of Bass model's diffusion process where there are only innovators and imitators and continues that the diffusion process includes more actors than the models currently recognize. Organizations communicate to raise awareness about them, their products, services, advantages and superiority over rivals. This information sharing is meant to reach not only the microlevel consumers, also referred as individual evaluators, but also other stakeholders from macrolevel authorities, such as reporters, governmental officers, jury members etc. (Humphreys 2010, 5). These macrolevel authorities construct collective level legitimacy judgements, as described in chapter 2.3.2 (Bitektine & Haack

2015, 50-51) and are therefore part of the communications target group. Organizations want to achieve a legitimate status in the institutional context to survive. The legitimate status from the macrolevel authorities, such as media, government and juridical systems, enables and supports the adoption. (Humphreys 2010, 5).

As was mentioned earlier in the chapter 2.3 about legitimacy, media plays a vital role in gaining legitimacy, especially for nascent companies in new emerging industries, since legitimacy constructs through information sharing among the market parties which is further shared by the media. (Schultz et al. 2014, 34; Kennedy 2008, 274). Suchman (1995, 591) specifies that only pragmatic legitimacy can be gained and manipulated through direct communication and information exchange between organizations and the constituents through the forms of advertisements and other offerings. (Suchman 1995, 591).

Kennedy (2008, 274) also agrees that media is a critical actor in constructing legitimacy for a nascent organization in an emerging business field. Kennedy (2008, 274) states that the independence of the reporters' news and stories support legitimation for firms outside the mainstream. According to Kennedy (2008, 274) high technology companies, which products and or services do not fit into existing product categories, invest substantially in public relations (PR) to attract reporters' attention to publish stories about them. The idea behind company's own PR is to make press releases which tell the story how the company wants it to be told to the public. This is considered as a basic tool for industry and or company diffusion. (Kennedy 2008, 274.) Occasionally reporters rest on the companies' own press releases, when it comes to the company specific facts and background information, from where they may quote direct phrases or even chapters. Acknowledging this organizations may use persuasive rhetorics in their press releases and choose their words carefully to pursue their own agenda and thus outline collective sensemaking. (Kennedy 2008, 274; Schultz et al. 2014, 37.)

Schultz et. al. (2014, 37) aptly refer media as an arena through which individuals present their interests. They continue arguing that there is evidence that not only does media provide information it also affects individual's impressions, attitudes, beliefs and behavior towards the presented content. Pollock & Rindova (2003, 634) share the view of media's influential power with Schultz et.al. and develop it further by arguing that besides of volume media can affect on individual's impression about the organization by framing it as negative or positive and by using different tenor in its argumentations. Also Formbrun & Shanley (1990, 240) argue that in addition to normal advertising, media is used

to influence our image of reality by publishing articles, editorials and news and thus shaping our opinions.

Fombrun (1990, 233) argues that in institutional fields, corporations compete on reputational status. Good reputation may, among other things, support higher pricing on the company's goods and or services, attract more users and investors. According to Fombrun (1990, 233) reputation construction can be affected by several stakeholders but ultimately reputations are constructed by the public which again use market, institutional and strategic signals to construct reputations.

As mentioned in chapter 3.3.1, Kennedy (2008, 271) suggests that cognitive embeddedness supports the legitimacy construction by transforming the abstract and intangible market into something real. He claims that cognitive embedding through co-mentioning new entrants in media empowers the creation of new categories, which again support in developing legitimacy. Single pioneers are associated with real markets when they are connected with alike organizations in public. He continues that it is critical to maintain a balance in the number of co-mentioning, since referring to too many similar organizations can be a burden, since it may cause an information overload. (Kennedy 2008, 273.) Kennedy's suggestions about cognitive embeddedness supporting the legitimacy construction by transforming the abstract and intangible market into something real is also in line with Meyer & Rowan's (1977, 340) DiMaggio & Powell's (1983; 150) arguments about the importance of fitting into legitimate groups.

It is claimed that journalists are likely to choose organizations to their publications, which are embedded in a wider network, supporting the emergence of a new industry. The public attention from reporters and journalists matter since it empowers cognitive legitimation. (Aldrich & Fiol 1994, 649; Kennedy 2008, 274-275). Even though visibility does not ensure increase in legitimacy it increases awareness which again is a key element in constructing legitimacy (Aldrich & Fiol 1994, 649; Kennedy 2008, 275). In the context of attention, media coverage can be considered as a measuring tool for performance (Kennedy 2008, 275). As Aldrich & Fiol (1994, 648) put it, the level of legitimacy can be measured "by measuring the level of public knowledge about a new activity" or "by assessing public acceptance of an industry".

3.4.2.1 *Media & events*

News covered in media are usually based on events worthwhile publishing (Bednarek and Caple 2017,3). According to Hunt (1999, 90) newsworthy events have to be identified based on timeliness, impact, and unexpectedness. Bednarek and Caple (2017, 3) agree with the statement but also add proximity, negativity, superlativeness to the listing. They refer newsworthiness to the news values, which, is explained, are the values that “have been recognized in the literature as defining newsworthiness”. But how do event become news? Galtung’s and Ruge’s (1965, 66) research is focuses on the theme in question and they suggest that when an event is considered as news the following twelve ‘news factors’ are at play: Frequency, Threshold, Unambiguity, Meaningfulness, Consonance, Unexpectedness, Continuity, Composition, Reference to elite nations, Reference to elite people, Reference to persons, and Reference to something negative. The first eight factors being considered as entirely based on perception, as culture-free, whereas, the remaining four factors are being considered as culture- bound. “The news factors that Galtung and Ruge propose are based on ‘common- sense perception psychology, created through analogy to radio wave signals.“

It is important to acknowledge the suggested theoretical process of how events turn into newsworthy news. However, in today’s postmodern world we become predisposed with news / publications / reports / tweets / blog posts which do not fill the above mentioned criteria about newsworthiness. We cannot clearly distinguish nor naively rely on pure “real” events from media’s interpretation of the given event. “Consequently, we can no longer work with the idea that the “real” is more important, significant, or even “true” than the representation.” (Hunt 1999, 44). Staab (1990, 429) and Bednarek & Caple (2017, 33) argue that journalists can influence the interpretation, emphasis and meaning of the news story by highlighting different news factors in the events.

The purpose of this research is not, however, in evaluating and measuring newsworthiness related to cryptocurrency market events, but rather to further understand how the publications and news related to the events within cryptocurrency market impact on public’s opinion which again results to an impact on legitimacy. For this reason, the articles and news analyzed in the empirical part of this paper are not selected based on newsworthiness, but rather content-based.

According to Langley (1999, 693) there are various levels of events. Events may include, deals, technological break-throughs, investment decisions, bad year, conversation,

a merger/acquisition, crimes etc. As mentioned in the introduction, cryptocurrency market has had a rich, eventful history and therefore it is justified to address the legitimation of new industry creation from event content – based point of view. Events which correlate with provocative rhetorics and themes regarding to the new product, service or company can be argued to be critical from the new market creation point of view.

4 CRYPTOCURRENCIES

Cryptocurrencies can be considered as a digital alternative for fiat cash, even though they differ greatly from traditional currencies. Cryptocurrencies have received considerably media attention within the past years. There is one cryptocurrency, in particular, which has enjoyed a great deal of this media attention despite the increasing number of competitors. One of the most known and prominent cryptocurrencies is Bitcoin (Rudlang 2017,1; Dwyer 2014, 81, 83). In order to deepen our understanding of the complexity of constructing legitimacy for a new disruptive industry, such as cryptocurrency industry, it is essential to go deeper with the example; Bitcoin. Therefore, the following chapters will briefly explain the basic functionalities behind bitcoin and introduce the history of the cryptocurrency in question.

4.1 A brief overview to Bitcoin functionalities

Bitcoin is a peer to peer network based, electronic cash system, a decentralized digital currency which supports high anonymity, comparatively secure transactions, irretrievable low-cost payments and has a limited coin supply (Dinic 2014, 111-113). That is to say, bitcoin is a system where there is no need to rely on third party authority to forward a transaction in order for nodes to exchange value in a distributed manner. Due to lack of central oversight, on distribution or validity of the transactions, several users or miners must agree on and validate all occurring transactions at the same time. (Rudlang 2017,15.) Term bitcoin can refer to both, bitcoin-protocol itself that maintains the blockchain and to a snippet of a code called bitcoin-token (Coindesk 2018).

Bitcoin uses blockchain technology as the bases of its operations. For example: the “public ledger”, which registers transactions, is known as the block chain. Bitcoins are generated through a complex process known as "mining". Bitcoin has limited its protocol to 21 million units and thus there are never more than 21 million units in circulation. (Botos 2017, 488; Dwyer 2014, 83).

To be more precise, complicated cryptographic algorithms are the core of bitcoin cryptocurrency. Among other functionalities, these cryptographic algorithms secure that the user does not spend the same coin twice and ensure the privacy of the counterparties. Cryptography again bases on hashing, which basically means censoring data accordingly

and ensuring the blockchain's immutability. (Mäkijärvi & Lassooy 2019, 21; Dwyer 2014, 83.)

Fundamentally, blockchain is a database consisting of trading records, which are referred as blocks and produced bitcoins. Each of the blocks include, among other things, a hash, which is altered in case someone of the miners tries to make even a small change to the block and thus makes tampering the blockchain difficult. (Mäkijärvi & Lassooy 2019, 21-22; Rudlang 2017, 15; Dwyer 2014, 83.)

The core of blockchain is in relying on the peer to peer network and its collective agreements what is correct and included in the blockchain. After collective decisions are made and the network community has validated a block in question, all the administrators of the network save the most recent version of the chain to their computers and thus it becomes immutable. (Mäkijärvi & Lassooy 2019, 21; Dwyer 2014, 84.)

Each time a user wants to make a transaction, he / she sends blockchain a request. Often this process is done via wallet or a cryptocurrency exchange. The transaction request is then voted within the network community to decide whether the record is correct or not. All transactions within bitcoin network relies on require public and private keys. (Mäkijärvi & Lassooy 2019, 21-22; Dwyer 2014, 84)

Some describe cryptocurrencies in general as valued assets and not cash, since cryptocurrencies are often attracting investors and referred as store of value. (BBC 2018). The security and profitability of the investment can be however, challenged since the high level of anonymity also attracts criminals. Additionally, the value of a cryptocurrency is defined by how much people are willing to purchase and vend them for. The valuation of the most valued, as per market capitalization, cryptocurrency Bitcoin has fluctuated substantially during it's relatively short period of existence; 2008-2019. Bitcoin's valuation has fluctuated between 0.0001 USD during its early days in June 2009 to its peak, almost 20 000 USD in December 2017 and everything in between (Coindesk 2019; Knoema 2019). This has raised concerns among the regulators how to oversight the cryptocurrency market where billions of dollars are traded daily (Weinland D. et. al. 2018).

4.2 Introduction to Bitcoin's history

The story of Bitcoin began in the end of the year of 2008 when alias Satoshi Nakamoto sent out a paper called Bitcoin to a mailing list (Nakamoto, 2008). Even though the pieces

of the innovation had been existing in other forms, alias Satoshi Nakamoto was the first one to combine the pieces in such way (Mäkijärvi & Lassooy 2019, 16). In 2009 Bitcoin became public for a larger audience and in already 2010 the first publicly known use case occurred when somebody used his / her Bitcoins to purchase pizza (Greenberg, 2011, 42).

As mentioned in the introduction, cryptocurrencies, especially Bitcoin as the pioneer, has had and continues having a rich and eventful existing period. Over the year's Bitcoin has faced several challenges, barriers but also faced great possibilities. When combining the colorful history of an ongoing journey of Bitcoin with the argument related to Bitcoin enjoying a great deal of the given media attention, the puzzle gets trivial.

The first competitors, Namecoin and Litecoin, entered the nascent market on 2011. In industry life-cycle terms, 2011 was the year and stage of fragmentation with all the cryptocurrency networks testing out the best possible solutions and protocol. At the moment, there are more than thousands of cryptocurrencies and new ones keep emerging frequently. (Forbes 2017; McGahan et. al. 2004, 2-3.)

Soon after Bitcoin's potentiality in trading was publicly proofed it became lucrative option for criminals due to high level of autonomy, lack of regulation and governmental or other third-party oversight. (Botos 2017, 500; Dinic 2014, 135.) The Silk Road scandal in 2013 gained a lot publicity and generated negative reputation for Bitcoins as they were used in the online market place to purchase illegal drugs, involved in money laundering and in other criminal activities. The scandal impacted on Bitcoin's valuation by decreasing it with approximately 9%. (Financial Times 2013.) Bitcoin was still in its infancy in 2013 and was not yet enjoying wide, global public awareness, thus, for some people Bitcoins and cryptocurrencies in general may have become a matter of common knowledge through the Silk Road scandal, when the first association of Bitcoins could have been to illegalities and criminal activities. On the other hand, the scandal also demonstrated that Bitcoins are scalable and relatively secure way to make transactions in a larger scale. In industry life-cycle terms the scandal showed Bitcoin's scalability and potentiality and may have even supported its position to become a dominant model.

In 2013 first ATMs were installed in Canada (Reuters 2013). Currently, there are more than 1 400 bitcoin ATMs existing globally (Bitcoin 2019). ATMs work also as a link to connect bitcoins to existing technology solutions, which again may support their acceptance on both, consumer and business field level, since by giving an example of a third-party use case is a strong indicator of bitcoin's potentiality.

In 2014 Bitcoin, still during its infancy, confronted yet another challenge when one of the most critical Bitcoin exchange, the Japanese exchange company, Mt. Gox was attacked with petrifying consequences. In the attack a number of 774 000 bitcoins, composing approximately seven percent of available Bitcoins, worth of 410 million USD at the time went missing. (Cointelegraph 2018; Li & Wang 2016,51; Dwyer 2014, 87) As said, Bitcoin was still in its infancy in 2014 and was not yet enjoying from a global public awareness, thus, for some people Bitcoins and cryptocurrencies in general may have become a matter of common knowledge through the Mt.Gox scandal, when Bitcoins could have been associated as a first thing with uncertainty, insecurity and unstable business.

One of the latest incidents was a theft related to cryptocurrency, called NEM, which occurred in January 2018. Approximately 534 million US dollars' worth of NEMs were stolen in a hacking attack against one of the biggest cryptocurrency exchanges in Japan, Coincheck. (BBC 2018) These kinds of news may make one question the reliability of the cryptocurrencies, albeit the security of the cryptocurrency would not be to blame for the attacks, but rather the third party authorities, exchanges. Still cryptocurrencies' secure technology and valuation has suffered from these news and associations. As an indicator, Bitcoin fell 3.4% after the Coincheck hack was revealed albeit it was not even the target, whereas the target of the attack, NEM, fell more than 10%. Worth of recognition is, however, that the first hack had greater negative impact on cryptocurrencies' valuation, even though the latter theft was larger. (Mäkijärvi & Lassooy 2019, 30, 83, 90; BBC 2018.)

In addition to hacks and thefts, there have been also increasing amount of use cases where recognized businesses have adopted Bitcoins in their operations. In 2014 PayPal announced about a partnership with Bitcoin and three of the major processors; Coinbase, GoCoin and BitPay (Forbes 2014). In addition to PayPal, also Microsoft adopted Bitcoins in to be used to purchase "games and videos on Xbox game consoles, add apps and services to Windows phones or to buy Microsoft software" (BBC 2014). In 2015 Nasdaq pinpointed blockchain technology which again gave cryptocurrency a big confidence boost (Nasdaq 2015). All these usages are indications of cryptocurrencies' usefulness and potentiality and they represent an increasing creditability, stability and continuity for the cryptocurrencies. "It's been said that we're at the stage where email was in 1992. Is it risky? Sure. But look at how the internet and email changed the world. Bitcoin may crash but leave a lasting legacy" (Reuters 2013).

5 METHODOLOGY

This research addresses the phenomenon from both interpretivist and realists approaches. The interpretivist approach is about understanding the researched phenomenon which is exactly what this research is about; *deepen the knowledge and understanding related to legitimacy building process in new industry creation and the role of media coverage through illustrative example; cryptocurrencies' industry creation*. Interpretivist approach allows considering various realities, different actors' viewpoints and taking account the context. Interpretivist approach allows researchers to include themselves into the research and to therefore interpret the data. However, interpretivist approach supports the thought that there is no single external reality, and that reality can be understood through perceived knowledge. (Carson, Gilmore, Perry & Gronhaug 2001, 5-6). Whereas in this research realist research approach is supported from knowledge definition point of view. In this research it is considered that there is an objective reality which is affected by subjective epistemology. Interpretivist research is focused on concrete and specific matters, and the data source is usually non-quantitative, which is also the case in this study. (Carson, Gilmore, Perry & Gronhaug 2001, 5-6)

This study can be considered as a quasi-experimental research, which uses bitcoin cryptocurrency as an illustrative example through which I strive to describe and deepen our understanding about the phenomenon of constructing micro-level legitimacy. According to Crano et al. (2015, 185) quasi-experimental research can be positioned somewhere between true experiment and pure correlation methods, as it includes a certain level of systematic manipulation which enables to observe and assess causal effects, but lacks the part of random assignment of the subject. They continue arguing that quasi-experimental research approach enables us to research essential topics and evaluate the manipulated or naturally occurred outcomes even though the trustworthiness of the approach is not as high as in true experimental methods, as they involve random assignment. Quasi-experimental research methods may even support studying issues with such contextual constraints that they could not be addressed with more standard research methods and thus may be useful for producing important insight about the research topic. (Crano et al. 2015, 213.)

Illustrative example was chosen to further explain and describe the phenomenon, as the interaction between a phenomenon and its context and the possible causalities are best understood through in-depth quasi-experiment studies. To be able to go deeper with the

phenomenon analysis I decided to gather data with an engaging survey including article set reading and by analyzing the same article set, used in the survey, comprehensively with an extended SWOT analysis. The empirical findings of the quasi-experimental research, deep analysis of the articles and existing theoretical information were then combined into framework, which can be considered as a theoretical contribution of this study (please see figure 11).

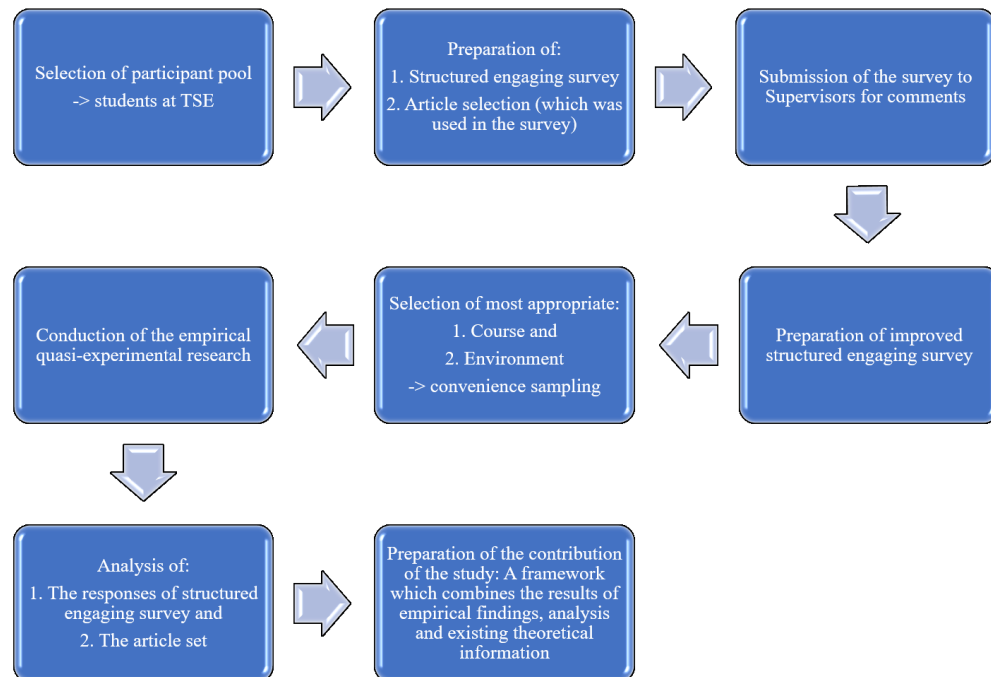


Figure 7 - Illustration of the quasi-experimental empirical research execution path of this study

5.1 Research strategy and questions

- Does macrolevel authority, media, have an impact to individual's microlevel legitimacy views?
 - If yes, does it affect to all legitimacy categories; pragmatic, moral and cognitive legitimacy views?

This study rests on qualitative research. In addition to qualitative research strategy, the study presents the results and findings in quantitative form to increase the trustworthiness of the study. In qualitative research the researchers' role in gathering the data has to be

taken into consideration as the researchers' own attitude, view and opinion may have an impact on the interpretations. (Eriksson & Kovalainen 2008, 12.) Kothari (2004) considers qualitative research is suitable for studying phenomenon which cannot be measured well statistically nor directly. He continues that qualitative research methods are usually used when investigating consumer.

5.2 Data collection and analysis

5.2.1 *Sample group & their background*

In this study, the sample group eventually consisted of fifty-seven (57) Finnish communication students. The communication lessons were selected due to higher variance in students' background (students from entrepreneurship, law, economics, geology etc.) which also resulted in answer variance. I attended to altogether six (6) Finnish communication lectures where the group sizes were supposed to be maximum 17 students and thus it was expected that the answer quantity might result to maximum of 102. However, the sample size turned out to be 57 students since a substantial part did not participate to the lectures. This however, could not have been anticipated. It has to be noted that the results of the test cannot be generalized due to small sample group size and due to lack of geographical and age variance within the sample group among other things.

According to Crano et al. (2015, 234) this kind of sample group is most often chosen based on convenience sampling over random sampling. University or University of Applied Sciences students as a sample group have been criticized for not representing the population widely. Additionally, it has been criticized that the students from a specific University do not even represent the population of their age, since they may characteristically differ from those at their age who are not studying, who are studying in a different location or who are working. It has to be noted, that as studying in Finland is free of charge, using university students as a sample group does not cause as much criticism as it might cause in, for example, United States, where the student fees are substantial. This would automatically mean that the research would be targeted to students with a specific socioeconomic status, which again could decrease the extent to which the results can be generalized. (Crano et al. 2015, 234)

It should be noted that external validity is limited in convenience sampling. However, convenience sampling is commonly used in non-experimental and quasi-experimental research, where the focus of the study is on the correlations of the variables, as in this study the focus is on the interdependency between micro-level legitimacy construction and media, studying the change. (Crano et al. 2015, 234)

Characteristics			
Age	18-20	8	14%
	21-23	32	56%
	24-26	6	11%
	27-29	1	2%
Gender	Female	33	58%
	Male	24	42%
	Other	0	0%
Orientation of degree program	Economics	25	44%
	Company law	1	2%
	Accounting & Finance	6	11%
	Management	2	4%
	International business	7	12%
	Marketing	4	7%
	Information system	3	5%
	Supply chain management	9	16%
Year of acknowledging cryptocurrencies	2009	0	0%
	2010	0	0%
	2011	0	0%
	2012	1	2%
	2013	4	7%
	2014	5	9%
	2015	9	16%
	2016	13	23%
	2017	18	32%
	2018	4	7%
Not aware	3	5%	
Prior experience	I am aware of them, but I have not used or invested in them	42	74%
	I am aware of them and I have used or invested in them	9	16%
	I am not aware of them and I have not used or invested in them	6	11%

Figure 8 - Sample group's background characteristics

The research indicated that respondents' previous experience about cryptocurrencies has got a substantial impact on the attitude, opinion, view and evaluation of cryptocurrencies. Therefore, it was justified to form "experience groups" within the sample group based on the respondents' answers to a question regarding to their previous experience about cryptocurrencies. The experience groups are as follows: 1. Expert group, N=9 (this group was aware of cryptocurrencies and the respondents had used or invested in them), 2. Aware group, N=42 (this group was aware of cryptocurrencies, but the respondents had not used them or invested in them) and 3. Unaware group, N= 6 (this group was not aware of cryptocurrencies and the respondents had not used or invested in them).

It must be noted that "unaware" group's last question set responses, after third article, could not be generalized to cover the group's (N=6) views, since in most cases only one respondent within the group responded to the last question set, decreasing the sample size to one person. Therefore, a decision was made to leave the results, which consisted of substantially lower sample size compared to the initial sample sizes (Aware N=42, Expert N= 9 and Unaware N= 6), not to be reported as they would have otherwise distorted the results.

5.2.2 *Survey*

Usually, the data gathered is based on researchers' observations and interpretations. (McKinnon 1988, 46.) In this research the answers of the respondents', however, did not require a lot of interpretation as the answers were to be selected from the presented alternatives. Albeit, the respondents were asked to explain their answers, usually, with max 5 keywords, where they could clarify their purpose. This of course can be argued to require interpretation and is thus susceptible to my own observations and interpretations. I also acknowledged that cryptocurrencies, as they are now, have existed already 11 years and thus supposed that some, if not all respondents would be aware of them and may be even familiar with them.

As mentioned in chapter 5.2.1, I executed the survey by attending to six Finnish communication lessons in Turku School of Economics where I engaged the attending students to the empirical tests with an engaging survey. The survey was conducted with webropol. Ten (10) pre-selected articles about cryptocurrencies' colorful lifecycle, from timeframe 2009-2018, were randomly divided to the sample group (N=57), which consisted of fifty-

seven Finnish language students, so that every respondent received altogether three (numbered 1-10) articles. The articles were divided so that each article had approximately similar quantity of readers; first respondent received articles number 1-3, the second articles 2-4, third one articles 3-5 etc. (please see the Appendix 3 for details about article distribution). The survey first monitored the background of the respondents with control questions and then continued to map out the respondents' microlevel-legitimacy views about cryptocurrencies according to Suchman's (1995, 578) legitimacy categorization; pragmatic, moral and cognitive legitimacy, followed by control questions after each article readings. These questions together with their theoretical reflections will be presented in the following chapter 5.2.3. The respondents were asked to read the articles one by one and in between the articles, a new similar set of questions was to be answered. Sample group's microlevel legitimacy views and nuances were thus analyzed by comparing the respondents' responses after each article reading to their prior answers as the same question was presented prior to article reading to verify the respondents' initial views, attitudes and opinions towards cryptocurrencies.

5.2.3 Survey questions

As mentioned in the previous chapter, 5.2.2, the survey first monitored the background of the respondents with control questions and then continued to map out the respondents' microlevel-legitimacy views about cryptocurrencies according to Suchman's (1995, 578) legitimacy categorization; pragmatic, moral and cognitive legitimacy, followed by control questions after each article readings.

The control questions in the beginning of the survey (presented in the figure 8) mapped out the background of the sample group so that I was able to monitor whether a certain background impacts the respondent's responses remarkably.

The research indicated that respondents' previous experience about cryptocurrencies has got a substantial impact on the attitude, opinion, view and evaluation of cryptocurrencies. Therefore, it was justified to form "experience groups" within the sample group based on the respondents' answers to a question regarding to their previous experience about cryptocurrencies.

	Legitimacy category	Sub-category	Explanations Individual's evaluation of:	Question in the structured engaging survey	Legitimacy components and level
Audience self interest	Pragmatic Legitimacy	Exchange	Direct usefulness / interest	Are cryptocurrencies beneficial to you?	Micro-level / propriety judgement
		Influence	Indirect / more wider usefulness	Do you think they are beneficial in general?	Micro-level / propriety judgement
		Dispositional	Trustworthiness / honesty / values	Do you think they are trustworthy?	Micro-level / propriety judgement
What is correct and right thing to do	Moral Legitimacy	Consequential	Quality and value of accomplishments	Do you think cryptocurrencies have accomplished a status of a credible currency?	Micro-level / propriety judgement
		Procedural	Process to the accomplishments	Do you think that the status has been accomplished ethically?	Micro-level / propriety judgement
		Structural	Separate specific process part	Do you think coin mining is inspected well for defects / bugs / frauds by cryptocurrency companies?	Micro-level / propriety judgement
		Personal	Leader's charisma	Do you know any cryptocurrency leader(s)? If yes, is the leader / are the leaders charismatic?	Micro-level / propriety judgement
Acceptance / Inevitability	Cognitive Legitimacy	Comprehensibility	Clear and coherent communication	Do you feel that you understand, with adequate detail, the basic principles and functioning of cryptocurrencies?	Micro-level / propriety judgement
		Taken-for-granted	Only alternative / inevitability	Do you think that cryptocurrencies are the only alternative for money transfer in the future?	Micro-level / validity belief

Figure 9 - Connections of survey questions and existing theoretical work

Sample groups' pragmatic legitimacy views over cryptocurrencies based on their previous experience were measured, evaluated and monitored with the three first questions presented in the figure 9 above (for detailed information, please see figure 15). All three questions fall under Suchman's pragmatic legitimacy category, first one reflecting to exchange, second question to dispositional and the third one to influence approach (Suchman 1995, 578). All three questions also refer to microlevel legitimacy and propriety, since they present individual-level evaluations and judgements about whether an organization, its practices and actions are appropriate and desirable. Although questions 2. *Do you think cryptocurrencies are beneficial in general?* and 3. *Do you think cryptocurrencies are trustworthy?* can also be addressed from validity belief perspective, since the questions can be interpreted in such a way that the respondent answers how he/she assumes the majority to think like. (Bitektine & Haack 2015, 51.)

Whereas sample group's moral micro-level legitimacy views were studied with four questions presented in the figure 9 above resting on Suchman's moral legitimacy category. First question "Do you think cryptocurrencies have accomplished a status of a credible currency?" reflects to Suchmann's (1995, 579-580) definition of moral consequential

legitimacy. Suchmann (1995, 579-580) argues that consequential legitimacy refers to audience's evaluation about the organization's or industry's accomplishments related to quality and value; outcomes. When considering an alternative currency, what could be more desirable outcome or an accomplishment than being taken as creditable currency? This question thus reflects the sample group's moral consequential legitimacy evaluations about cryptocurrencies on micro-level (Bitektine & Haack 2015). The second question "Do you think that the status has been accomplished ethically?" refers to Suchmann's (1995, 580) procedural legitimacy category where the process to the outcomes is emphasized over the actual outcomes. Additionally organization's routines are viewed in isolation and evaluated. This question reflects the target group's procedural legitimacy evaluation over cryptocurrencies on micro-level. Third question "Do you think coin mining is inspected well for defects / bugs / frauds by cryptocurrency companies?" reflects to structural legitimacy by Suchmann (1995, 581), since it considers the structural characteristics of the industry in general. It must be noted that legitimacy is often related to a specific organization, thus the response to this question is likely linked to specific organization's or entity's actions, in this case to Bitcoin. The third question thus indicates the target group's moral structural legitimacy views about cryptocurrencies on micro-level. The fourth and final question related to moral legitimacy rests on Suchmann's definition about personal legitimacy. The question "Do you know any cryptocurrency leader(s)?" and its follow-up question "If yes, is the leader / are the leaders charismatic?" reflects target group's personal legitimacy views about cryptocurrencies on micro-level.

Sample group's cognitive legitimacy views over cryptocurrencies were evaluated and analyzed with two questions presented in the figure 9 above. Both questions fall under Suchman's cognitive legitimacy category, which emphasizes the evaluation of organization's or industry's acceptance and more precisely the evaluation whether the organization is considered as necessary or inevitable (Suchmann 1995, 582-583). The first question; Do you feel that you understand why cryptocurrencies exist? reflects to Suchman's (1995, 582-583) cognitive comprehensibility view, since it highlights whether the individual evaluator has a clear understanding why cryptocurrencies exists, which again can tell us whether the communication about cryptocurrencies has been coherent and clear or not. As this question reflects the individuals' evaluation about his or her own understanding, this question links to Bitektine & Haack's (2015,) propriety judgements. The second question; Do you think that cryptocurrencies will be the only alternative for money transfer in the future? Reflects to Suchman's (1995, 582-583) taken-for-grantedness view, as

it questions the existence and necessity of other alternatives. This is often considered as the most powerful form of legitimacy, since if the audience cannot think of an alternative for the evaluated organization industry it most certainly is taken for granted. (Suchmann 1995, 582-583.) The question can be also linked to Bitektine & Haack's (2015, 55-56) validity belief as the respondents may consider in their own answers what majority thinks of cryptocurrencies being the only alternative for money transfer in the future, which again has a remarkable impact on the single evaluator's answer.

5.2.4 Article selection

As the purpose of the study is to further understand how the media publications and news related to the events within cryptocurrency industry, during their existence 2009-2018, impact on public's opinion which may under certain institutional circumstances result to an impact on legitimacy. It is justified to address the legitimation of new market creation from event and content – based point of view. As Suchman (1995, 574) argues; a single event has only a limited or no impact at all on legitimacy construction. This statement can, however, be questioned when the case is about a nascent industry. Suchman (1995, 574) continues arguing that a series of events may affect individual evaluator's judgements. Therefore, this study used 10 randomly pre-selected articles from widely known publishers about Bitcoin's colorful history during its existence, between 2009-2018, to measure and evaluate how these articles affected the sample group's micro-level legitimacy by shifting their judgements and evaluations about cryptocurrencies. A set of 10 articles, presenting several events, was chosen, as the set can be referred to Suchman's (1995, 574) event series. Only articles that were electronically available were included (Jones, Coviello & Tang, 2011).

Due to given timeframe and conducting a Master's thesis the total number of analyzed articles had to be limited. Thereby the amount of analyzed articles was be narrowed down followingly; Articles were selected based on two variables; publishing year and headline. In the basis of the article selection was that the articles had to be found electronically so that it would guarantee a maximum accessibility. Even though the empirical research was executed in a Finnish university in Finland, Finnish newspapers or magazines were not chosen to be used in the survey. News covered in Finnish media were most often about the technology behind cryptocurrencies and as the focus of this study is more towards the causalities and interdependencies between events in cryptocurrency history and public's

micro-level legitimacy evaluations, it was obvious that the articles included in this study should cover social aspects as well. Therefore it was justified to select wider set of articles published by global media actors whose circulation, online publications and social media activity were on reachable level globally. This again meant that the articles had to be written in English.

Nationality	Source	Source description	Article headline	Publish year	Article No
UK	Financial Times	Leading newspaper in UK and recognized internationally. Published daily & available online.	China cracks down on bitcoin mining in latest rejection of cryptocurrencies	2018	4
USA	The Washington Post	One of the leading newspapers in USA. Publishes articles related to politics, international business and national events. Published daily & available online.	For bitcoin, a successful charm offensive on the Hill	2013	6
International, UK	Reuters	International news organization focusing to finance, economics and business. Available online only.	Bitcoin goes mainstream with ATM in Vancouver coffee shop	2013	1
International, USA	Business Insider	Is one of the leading business and financial news websites in USA, published by Insider Inc. Available online only.	Bitcoin miner: The rise of Ethereum could help some bitcoin miners	2017	2
UK	Financial Times	Leading newspaper in UK and recognized internationally. Published daily & available online.	Bitcoin's place in the long history of pyramid schemes	2015	3
USA	Wired	Wired is popular technology centered magazine which additionally publish stories related to innovations and business in general. Published monthly & available online.	Underground website lets you buy any drug imaginable	2011	10
UK	The Economist	The Economist is highly valued and appreciated periodical, which concentrates on finance, economics and international business. Published weekly and available online.	Monetarists anonymous; Bitcoin	2012	9
UK	The Economist	The Economist is highly valued and appreciated periodical, which concentrates on finance, economics and international business. Published weekly and available online.	Mining digital gold; virtual currencies	2013	8
UK	The Economist	The Economist is highly valued and appreciated periodical, which concentrates on finance, economics and international business. Published weekly and available online.	How bitcoin mining works?	2015	7
USA	Forbes	Forbes is popular business magazine, focusing on industry, technology, financing and politics. Published biweekly and available online.	Cryptocurrency	2011	5

Figure 10 - Relevant article's sources and their brief overview

5.2.5 *Article analysis*

Deep analysis of the ten articles was conducted through an extended SWOT-analysis. Systematic iterative literature review was first applied to produce a comprehensive view of the current knowledge related to legitimacy construction on industrial level (macro-level) and moreover on individual level (micro-level) and about cryptocurrencies. The article set was first analyzed based on an initial SWOT analysis about cryptocurrency; bitcoin, which again was based to prior literature review, presented in chapter 4. The second level of SWOT analysis was executed after intensive review on the article set, included to the engaging survey, by complementing the SWOT with the themes and contents presented in the article set. The second level of the SWOT analysis was used to draw out the themes comprehensively. This allowed to analyze how much a particular theme or term constituted of the coded data. The third and final level of the SWOT analysis was done after the data had been collected through the engaging survey. I then analyzed how many times the themes, categories and related terms, included in the SWOT, were mentioned in the respondents' explanation fields in the survey data. As the survey questions were strongly linked to Suchman's (1995) legitimacy categories in such a way that each question related to a different legitimacy category and their subcategories I was able to trace the contexts where these keywords had been used by the respondents to explain their answers. From these information I was able to measure the quantity how many times a certain theme, category or term was mentioned in the given article set, how many times the same theme, category or term had been used in the survey data to explain one's choice and in which contexts it was used (please see Appendix 1 and Appendix 2 for detailed information about the article analysis). The multilevel SWOT analysis allowed to identify very detailed trends in the defined literature in respect to the article contents. Furthermore, the extended SWOT analysis allowed identifying inter-relationships between the existing theory and the empirical findings of this study. By combining this information, a theoretical framework connected to the empirical findings and analysis was created, linked to the engaged structured interview responses. This framework, please see figure 11, is being used as the basis for the following extended SWOT article analysis.

5.3 Trustworthiness

Reliability of the data used in this study can be debated as this study uses both primary data such as scientific articles and reports and also secondary data such as books, journals and newspaper/magazine articles. Albeit, when gathering the data several information sources were used to maximize the reliability and trustworthiness of the information used and referred in the study while simultaneously increasing the trustworthiness of this research.

As this study uses quasi-experimental research approach, which can be positioned somewhere between true experiment and pure correlation methods, the trustworthiness can be questioned to a certain level. Quasi-experimental research approach's trustworthiness is not as high as in true experimental methods, as it lacks random assignment. However, quasi-experimental research approach enables us to research essential topics and evaluate the manipulated or naturally occurred outcomes which could not be addressed with more standard research methods and thus may be useful for producing important insight about the research topic. (Crano et al. 2015, 213.)

As the empirical findings focus on researching the sample group's legitimacy views prior and after article readings, the articles included in the set of ten were carefully evaluated after random picking. A great consideration was addressed towards the article reliability (please see figure 10 for a brief overview of the media sources used). As the main purpose of this study is to deepen our understanding about the phenomenon of constructing micro-level legitimacy for a new industry, rather than producing statistically generalizable results, some criteria from Gibbert et. al. (2008, 1466) were considered inapplicable and others have been adopted.

As mentioned, in this study the answers of the respondents', did not require a lot of interpretation as the answers were to be selected from the presented alternatives. Additionally, the respondents were asked to explain their answers usually with max 5 keywords, where they could clarify their purpose. Thus, it can be argued that the validity of the gathered and used data is relatively high in this research.

Additionally, there were no personal nor professional ties whatsoever to the selected illustrative example. All information related to the illustrative industry and example were gathered from various sources to maximize the reliability of the information and the trustworthiness of this study.

Related to the data and theories used in the literature review, it can be argued that majority of the theoretical information used are generally acknowledged and thereby should not be underestimated. (McKinnon 1988, 34–54.)

Acknowledging the limitation mentioned above, it can still be argued that this study provided relatively reliable and trustworthy results related to the research phenomenon. Furthermore, this study allowed identifying inter-relationships between the existing theory and the empirical findings of this study and responded to the presented research questions. By combining the theoretical information, the empirical findings a theoretical framework was created which can considered as a theoretical contribution. Therefore, it can be argued that this research met the criteria of validity and reliability, according to Patton. (2002, 544).

6 MICRO-LEVEL NUANCE SHIFTS IN LEGITIMACY VIEWS WITHIN ANALYZED EVENT SERIES

Ten (10) pre-selected articles about cryptocurrencies' colorful lifecycle, from timeframe 2009-2018, were randomly divided to the sample group (N=57) so that every respondent received altogether three articles. The survey first monitored the background of the respondents with control questions and then continued to map out the respondents' micro-level-legitimacy views about cryptocurrencies according to Suchman's (1995, 578) legitimacy categorization; pragmatic, moral and cognitive legitimacy, followed by control questions after each article readings. Sample group's micro-level legitimacy views and nuances were thus analyzed by comparing the respondents' responses after each article reading to their prior answers as the same question was presented prior to article reading to verify the respondents' initial views, attitudes and opinions towards cryptocurrencies.

It essential to understand the context of the engaging survey and thus, before going into the empirical survey results the following chapter will introduce an in-depth analysis over the article set provided to the sample group.

6.1 Discussion about the set of articles

Deep analysis of the ten articles was conducted through an extended SWOT analysis. The first level of SWOT analysis reviewed the article set based on an initial SWOT analysis about cryptocurrency; bitcoin, which again was based to prior literature review, presented in chapter 4. Whereas, the second level of the SWOT analysis was used to draw out the themes comprehensively by complementing the SWOT with the themes and contents presented in the article set. This allowed to analyze how many times a particular theme or term occurred in the given article set. The third and final level of the SWOT analysis was done after the data had been collected through the engaging survey by measuring how many times the themes, categories and related terms, included in the SWOT, were mentioned in the respondents' explanation fields in the survey data. As the survey questions were strongly linked to Suchman's (1995) legitimacy categories in such a way that each question related to a different legitimacy category and their subcategories it was possible to trace the contexts where these keywords had been used by the respondents to explain their answers. By combining this information, a theoretical framework connected

to the empirical findings and analysis was created, please see Appendix 1 and Appendix 2 for detailed information about the article analysis linked to the engaged structured interview responses. This framework is being used as the basis for the following extended SWOT article analysis.

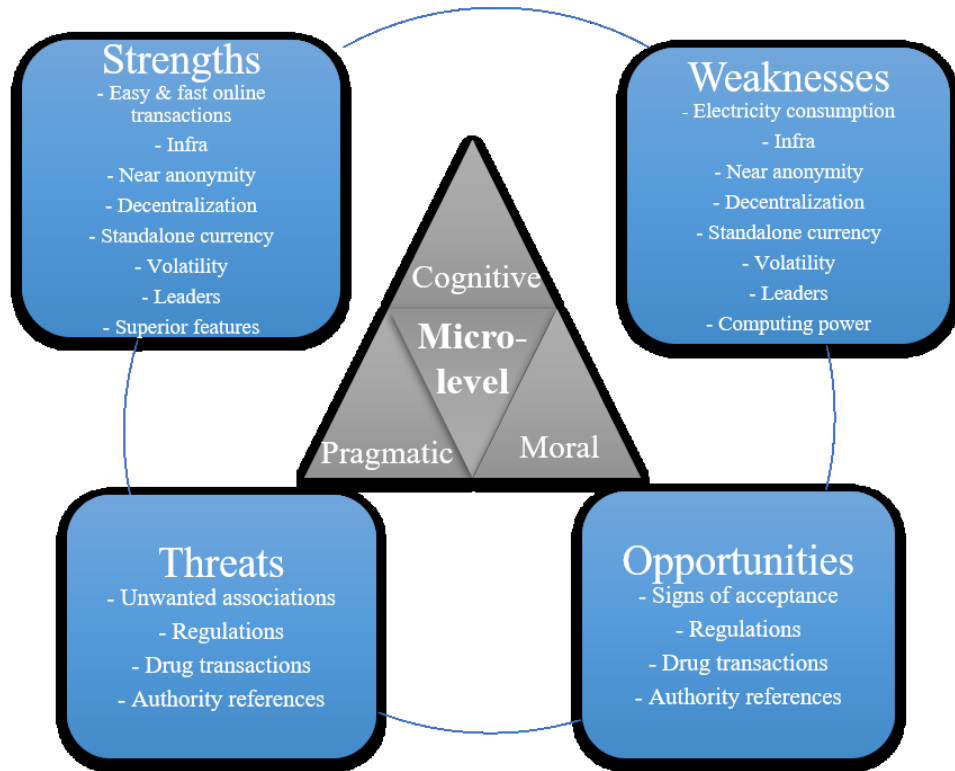


Figure 11 - Extended SWOT analysis about the set of articles

6.1.1 *Easy & fast against electricity consumption*

Starting logically from strengths, in upper-left corner; *Easy and fast online transactions* was mentioned altogether eight (8) times in the article set provided to the respondents. *Easy and fast online transactions* were also used as key terms to explain respondents' answers in the survey altogether twenty-two (22) times. It was mainly used, seven (7) times, in related to cognitive comprehensibility views, where the respondents were asked to explain why they think cryptocurrencies exist. The second most common use for the key terms, in the survey, was related to a question; How would you evaluate cryptocurrencies usefulness. The respondents used the key term to justify their answer, "more useful" altogether five (5) times. This could implicate that bitcoin's internal features, easy

& fast, can reflect positively to pragmatic legitimacy. More precisely it can reflect to pragmatic influence legitimacy as it refers to indirect usefulness of the evaluated invention. The opposite of easy and fast transactions could've been the growing amount of data, which slows down the mining and validation processes. But, as it was mentioned in the article set only one time, and it was not used to explain any answers in the survey it was left without further analysis. The first listed weakness is *electricity consumption*, which was mentioned six (6) times in the article set. It can be linked to moral procedural legitimacy view since it reflects on individual's evaluation whether the outcome, in this case mined bitcoins, are an outcome of a desirable process. However, the respondents did not use the key term, *excessive electric consumption*, to explain why some of the respondents did not think cryptocurrencies current status would be achieved ethically, which would have supported this analysis. Moreover, the key term was used altogether five (5) times to explain the respondent's attitude shift towards more negative direction. It also had a minor negative impact on three of the respondents related to their evaluation of cryptocurrencies' usefulness and trustworthiness (please see the figures 17 and 18 related to shifts in the sample group's usefulness and trustworthiness evaluations). It can also be speculated if mining will be concentrated to countries which can provide economic electricity at the risk of losing control over it, or not.

6.1.2 *Infra*

The second category *infra* consisted of terms such as; ATM, *infra* and exchanges (,which were not linked to crashes nor thefts). The category was referred twelve (12) times in the article set. *Infra* can be linked to pragmatic influence legitimacy as it may either increase or decrease the overall usefulness of cryptocurrencies and is thus listed to both as a strength and as a weakness. The more there are ATMs and reliable exchanges available for the consumers the more the usage of cryptocurrencies eases and the threshold to try a new digital currency lowers. *Infra* key word was however, only used twice (2) to explain two of the respondents' evaluation of cryptocurrencies' usefulness towards "more positive". The impact works, as mentioned, both ways, since if the *infra* is not good and the usage gets more difficult, it may decrease the usefulness. Currently, there are more than 1 400 bitcoin ATMs existing globally (Bitcoin 2019). ATMs work also as a link to connect bitcoins to existing technology solutions, which again may support their

acceptance on both, consumer and business field level, since by giving an example of a third-party use case is a strong indicator of bitcoin's potentiality.

6.1.3 Near anonymity

The third category, *near anonymity*, was mentioned eleven times in the article set. It can be considered both, as an advantage which can increase users' security and as a disadvantage as anonymity can increase the attraction to use cryptocurrencies in criminal activities and thus is listed as strength and weakness. *Anonymity* can be linked to pragmatic exchange legitimacy if the evaluator uses cryptocurrencies him/herself as it then directly makes it more beneficial. Even so, *anonymity* was used only once to justify a respondent's answer to a question "Do you think cryptocurrencies are beneficial in general". The respondent who considered that anonymity increases cryptocurrencies' usefulness was aware of cryptocurrencies in advance and had previously invested in them or used them. It can also be linked to pragmatic dispositional legitimacy views as it reflects to respondents' evaluation whether cryptocurrencies can be trusted. Interestingly anonymity both increased and decreased five (5) of the respondents' evaluation about cryptocurrencies trustworthiness, as it was used as an explanation in both cases five (5) times. Anonymity can also be linked to moral structural legitimacy view as it can be viewed and evaluated in isolation. What was interesting to notice was that anonymity had a negative impact on four of the respondents' attitude. It was used four (4) times to explain their attitude shift towards more negative; "anonymity increases dealing drugs", one respondent commented. Three of the respondents' also considered anonymity affects trustworthiness; "anonymous currency, doesn't sound trustworthy".

6.1.4 Decentralization

The following category, *decentralization*, occurred altogether thirteen times in the given article set. Decentralization can be addressed from at least two angles; on one hand it ensures that the cryptocurrency is not subject to inflation, and on the other hand the fact that every single transaction requires several miners to agree on and to validate all occurring transactions at the same time requires resources, although it also ensures that it is very demanding to make fake transactions. Therefore, the term was listed as a strength

and as a weakness. *Decentralization* can be connected to both, moral structural legitimacy similarly as the *near anonymity*, and to cognitive comprehensibility view as it may deepen one's understanding why cryptocurrencies exist. *Decentralization* term was used several times when the respondents were asked to explain shortly "Why cryptocurrencies exist?".

6.1.5 Standalone currency

Not backed up by a government nor a company, was only mentioned four (4) times in the articles provided, but as it connects to the core ideology of cryptocurrencies so tightly, it was decided to be kept in the analysis. It is listed to both, a strength as it emphasizes the initial ideology of an independent, decentralized currency and as a weakness as it simultaneously means that in case of a theft, fraud, hack or crash the stolen cryptocurrencies will be lost as there is no third party authority which would back up the possible lost in case of a hack. The two major hacks or thefts; Mt.Gox in 2014 and Coindesk in 2018, are unfortunately great examples of this kind of situation. The two major exchanges were attacked and millions of dollars' worth of cryptocurrencies were stolen. All users and investors who used these exchanges then, simply lost their money. Standalone currency or not backed up by a government nor a company can be linked to both, moral consequential and structural legitimacy views as it reflects audience evaluation whether the outcome is creditable and whether the evaluated organization is the right one for the job. The key terms was, however, used only twice (2) to why two of the respondents' did not think cryptocurrencies have achieved a status of a creditable currency and thus, did not have a significant impact on the respondent's evaluations.

6.1.6 Volatility

The next term *volatility* can also be considered as both, a disadvantage since it enables a quick fall in the price, and as an advantage since it also enables a quick recovery. Volatility category consisted of terms such as; *volatile, volatility, quick or rapid change in valuation, quick fall or dip in the price, fast recovery, appreciation and increase in the value*. *Volatility* was mentioned fourteen (14) times in the articles and used altogether seventy (70) times, by the respondents, to explain their responses in the survey and thus it can be argued that it had the most impact on the sample group's evaluations. The sample

group's interest and responsiveness towards content about cryptocurrencies' volatility can be partially explained with the sample group's strong association of cryptocurrencies' usefulness to investing. Altogether twenty (20) of the respondent's linked cryptocurrencies' usefulness to gaining money through investing in them (please see chapter 6.1 for further information). Bitcoin's valuation has fluctuated between 0.0001 USD during its early days in June 2009 to its peak 20 000 USD in December 2017 and everything in between (Coindesk 2019; Knoema 2018). *Volatility* was used sixteen (16) time to justify a respondents' choice why they considered cryptocurrencies less trustworthy after reading articles. This links *volatility* to pragmatic dispositional legitimacy view as it emphasizes the respondents' evaluations whether the target of evaluation can be trusted. It can be argued that *volatility* had a negative impact on respondent's pragmatic dispositional view as the term was used to justify their choice "less trustworthy". *Volatility* was used also twenty-three (23) times after article readings to explain respondents' answers why they thought cryptocurrencies cannot be considered as a creditable currency. One of the articles argued the following: "The limited supply of bitcoins becomes a fatal constraint since the more people use it, the greater the price must rise, dissuading its use as a currency." (Financial Times 2015). Using *volatility* as a justification to explain one's judgement about cryptocurrencies' creditability connects it with moral consequential legitimacy views as it relates to industry's accomplishments related to quality. Thus it could be argued that *volatility* had a negative impact on the sample groups' evaluations related to moral consequential legitimacy views. The term was also used seven (7) times, by the respondents who considered they understood why cryptocurrencies exist, when they were asked to describe shortly their view. Additionally, it was used seven (7) times when the respondents were asked if cryptocurrencies will be the only money transfer alternative in the future, to explain their answer "no". This links *volatility* to also cognitive comprehensibility.

6.1.7 *Leaders*

Leaders term consisted of terms such as; *leader, director, role model and founder*. It is listed both as a strength and as a weakness, since it could be a strength if cryptocurrency entities would like it to be. It can also be a weakness, if it is neglected as the lack of leadership can increase uncertainty towards cryptocurrencies, which again does not in-

crease trust in them. For people who are not that familiar with the technology and processes behind cryptocurrencies, a leader who could be related to and who could communicate clearly and coherently to audience could increase trustworthiness and credibility. Within the given article set *leader* was mentioned seventeen (17) times whereas, in the survey it was only mentioned once (1) in context where a respondent explained his / her answer “less trustworthy” with the following terms; “Very anonymous, we know nothing of the founders”. Please see chapter 6.4.4 about sample group’s moral personal legitimacy views for further analysis.

6.1.8 *Superior features & computing power*

Superior features category consisted of terms such as; *non-reversible transactions, tough to forge and economic transactions*, which can all be considered as strengths. Terms under this category were used in the article set in total seven (7) times whereas in the survey explanations they were used eleven (11) times. Superior features were mainly used in explaining respondents’ answers in why they thought cryptocurrencies have achieved a status of a creditable currency, as it was used six (6) times in that context.

Terms under the category of *computing power* were mentioned seven (7) times in the provided article set in total. This category consisted of terms such as; *computing power, hard, difficult or demanding mining, centralization of mining, monopoly, mining firm or company and consolidation*. *Computing power* is listed as a weakness as the increase of demanded computing power related to cryptocurrency mining increases the quantity of mining companies, as the normal desk computers are no longer powerful enough to process the mathematical problems related to mining fast enough. This again could lead to centralization or monopoly of mining, which would be the right opposite what was initially designed. Centralization of the mining would also bring additional challenge related to 51% dilemma, where if a certain entity holds 51% or more of the existing bitcoins, they could take over control of the cryptocurrency in question. The terms under the category of computing power were only used fragmentary four (4) times altogether and thus had no significant impact on the sample group’s micro-level legitimacy views.

6.1.9 *Signs of acceptance & unwanted associations*

Signs of acceptance was listed as an opportunity and it included terms such as; *More users, use case, mainstream, leading virtual currency, positive attention, acceptance, positive reception*. The terms under this category were mentioned forty-five (45) times in the article set and twenty-four (24) times in the survey explanations. One could think that increasing awareness about cryptocurrencies' potentiality, use cases and business engagement would increase respondent's evaluation about cryptocurrencies' usefulness and possibly even trustworthiness and thus link positively to respondents' pragmatic influence and dispositional legitimacy views. However, within this sample group the positive examples and connections with business use cases raised mainly doubts. One respondent had written; "article felt like an advertisement", to an explanation field after responding "no change" in his / her negative attitude towards cryptocurrencies. The key terms under the *signs of acceptance category* were used mainly to explain why majority of the respondents' thought cryptocurrencies cannot be considered as a creditable currency. Several respondents argued that they think cryptocurrencies are not yet widely accepted and therefore cannot be considered as a creditable currency.

The next category, *unwanted associations* consisted of terms such as; *fraud, theft, hack, bubble, child pornography, pyramid scheme and scam*. The terms under the category were mentioned thirty-six (36) times within the article set and the exact same quantity thirty-six (36) times within the survey explanation fields. These terms were listed as threats as they are all external issues, opinions and impressions which may tamper bitcoin's reputation without any further evidence. Purely an image of these negative terms associated with bitcoins may be enough to have a negative impression of bitcoins. The results of the survey support this deduction as the terms under the unwanted association were used ten (10) times to justify respondents' evaluation of cryptocurrencies' trustworthiness and ten (10) times in explaining creditability towards more negative direction. This links unwanted associations negatively to respondents' pragmatic dispositional and moral consequential legitimacy views. Unsurprisingly unwanted associations also had a negative impact on respondents' attitude towards cryptocurrencies. Cryptocurrency entities should take these threats seriously as they seem to have quite significant negative impact on the respondents' micro-level legitimacy evaluations and judgements, at least within this sample group. This is especially important as most of the listed terms cannot be affected by cryptocurrency entities them self, as hacks, thefts, crashes and frauds are

usually the blame of poor third-party exchange company security level. Yet, these thefts are hacks are directly linked to the cryptocurrencies and their reputation. It is not good promoting either that “The head of the largest bitcoin exchange in China agrees bitcoin has the character of a pyramid scheme. "It all comes down to what we think of a pyramid scheme. Is that a good thing or a bad thing?” (Financial Times 2015).

6.1.10 Regulations

Regulations is listed both as an opportunity and as a threat as it depends heavily on the evaluator’s own vision about cryptocurrencies’ future how they see and evaluate regulation. Regulation was mentioned seven (7) times in the article mix whereas within the survey explanations, it was used twelve (12) times. Regulators have been under a lot of stress due to Bitcoin and other cryptocurrency irregularities to act in overseeing cryptocurrencies as the valuation of the most valued, as per market capitalization, cryptocurrency Bitcoin has fluctuated substantially during its relatively short period of existence; 2008-2019. (Financial Times 2018.) As mentioned in chapter 6.1.6 Bitcoin’s valuation has fluctuated between between 0.0001 USD during its early days in June 2009 to its peak 20 000 USD in December 2017 and everything in between (Coindesk, 2019; Knoema 2018). This has raised concerns among the regulators how to oversight the cryptocurrency market where billions of dollars are traded daily (Financial Times 2018). The lack of regulations can be considered both as a challenge but also as an opportunity, since once cryptocurrencies are legislated it would automatically be a leap towards more legitimate and taken-for-granted industry which again could support its continuum in the future. On the other hand, legislation and regulations would be in contradiction with cryptocurrencies’ initial ideology of a decentralized alternative currency which is not dependent on any central activities. However, as long as humans are involved there are always persons who try to benefit from the lack of regulation, governmental oversight and legislation at the expense of others. It would be naive to think that cryptocurrencies could grow endlessly and replace fiat currency without regulative actions, yet again, this is purely one interpretation. In case there no such vision about disrupting one of the world’s oldest industries, financial industry by replacing the fiat currencies, there could be a potential for cryptocurrencies to be the progressive, alternative digital currency for the minority. Despite of the lack of regulation, cryptocurrencies have existed already, as they are today defined, 11 years. And most likely they are here to stay. How their story will evolve can

be only guessed and speculated. Whatever turns out; “Bitcoin may crash but leave a lasting legacy” (The Economist 2013).

6.1.11 Drug transactions

Drug transactions are also listed both as an opportunity and as a threat as it, similarly to regulation, depends on the evaluator’s own personal attitude how he / she see and evaluate drug business. For some persons the association to drugs and criminal activities automatically means negative attitude and decrease in trust. Whereas other persons might pass the terms; drugs and criminal and concentrate on the latter terms; transactions and activities, which again support bitcoin’s potentiality and scalability. A great example of this kind of division in public’s view is related SilkRoad, which was known as the online marketplace of, among other things, drugs. Some people say that SilkRoad was;” the most complete implementation of the Bitcoin vision” referring the use of SilkRoad to eBay and Amazon (Wired 2011). Whereas other people considered it as a negative association which would only tamper bitcoin’s reputation. One thing, which seems often be forgotten is that current fiat currency is used in drug business as in other criminal activities as well at the moment and in this sense is no better than any cryptocurrency. Yet the possibility of being used in drug business is seen as negative feature when it comes to cryptocurrencies. *Drug transactions* category included the following terms; *drug business, drug transactions, drugs, drug dealing and SilkRoad*. The terms under the category were mentioned altogether thirty-seven (37) times within the articles and seventeen (17) times within the survey explanations. It mainly had a negative impact on respondents’ attitude, as it was used six (6) times to justify the attitude shift towards more negative direction. Only few respondents considered it increases the usefulness of cryptocurrencies’ and thus it was used three (3) times to explain respondents’ evaluation towards “more useful”. The rest of the usages were fragmented among the remaining contexts.

6.1.12 Authority references

Authority references are also listed as an opportunity and as a threat as it depends on the content of the reference and its context. Some of the articles however, used substantial

number of authorities, which they referred there were altogether twenty-seven (27) authority references and they were also used within the respondents seventeen (17) times. Referring to authorities as the Senate Homeland Security, Senate banking committee, Governmental Affairs Committee, Justice Department and Financial Crimes Enforcement may automatically for some people increase the weight of the following content. Whereas for some people, who believe in the ideology of decentralization, the authority references may rise fear of seizing control and being regulated. Within the sample group the authority references were mainly (7) used in answering to a cognitive taken-for-granted question; “Do you think cryptocurrencies will be an only alternative for money transfer in the future?”, where the respondents answered “no” and explained their answer including “lack of governmental support” and “no state support”. The Economist article (2013) raised a good question; “What if a country were to issue algorithmic money?” Would it be more creditable choice? For some it might be more creditable with governmental regulation, back up and control yet again could be so because majority is used to operate in such environment and because it feels safe? Would people accept it faster? Perhaps some could get used to the idea faster, but yet again, as an example, there are still people who would not want to use Euros in Finland even though Finland took euros into operation already in 2002. That to be said, there are always contradicting thoughts, views and attitudes and most likely there will be no such situation where there would be a complete consensus. Moreover, it is about influencing on the majority and the early adopters who are keen to promote the idea further and the timing related to prevailing institutional context; stability against change.

6.2 Target group’s background

As mentioned in chapter xx the research indicated that respondents’ previous experience about cryptocurrencies has got a substantial impact on the attitude, opinion, view and evaluation of cryptocurrencies. Thus, the following graphs describe respondents’ micro-level legitimacy views over cryptocurrencies and a possible change in them, per each “experience group”, reflecting to the possible change in respondents’ attitude, opinion, view and evaluation of cryptocurrencies. The experience groups were formed based on the respondents’ answers to a question regarding to their previous experience about cryp-

tocurrencies and are as follows: 1. Expert group, N=9 (this group was aware of cryptocurrencies and the respondents had used or invested in them), 2. Aware group, N=42 (this group was aware of cryptocurrencies, but the respondents had not used them or invested in them) and 3. Unaware group, N= 6 (this group was not aware of cryptocurrencies and the respondents had not used or invested in them).

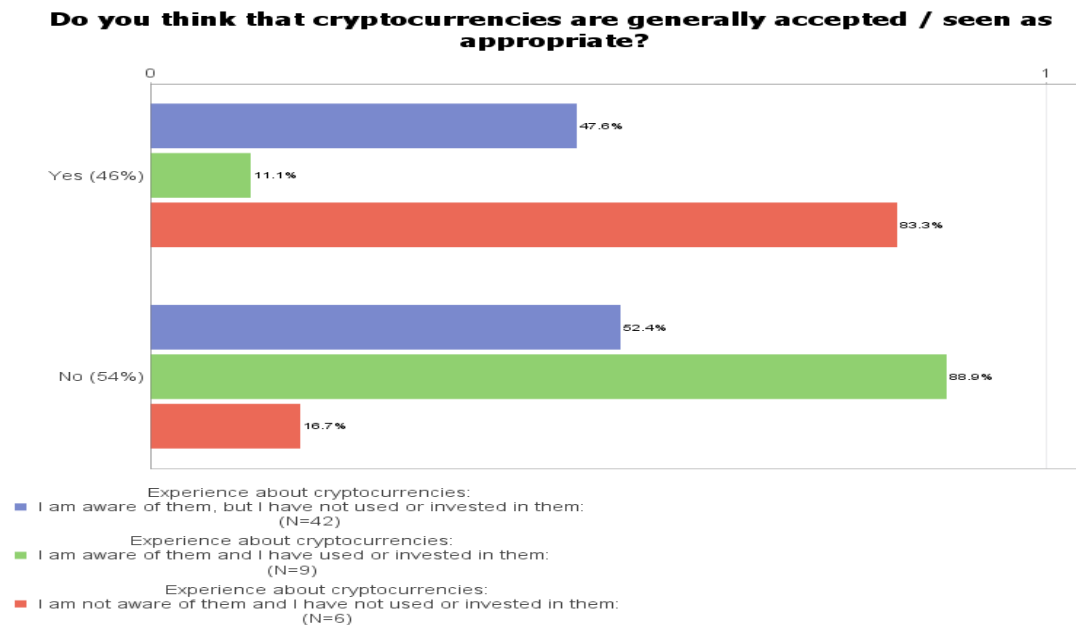


Figure 12 -Evaluation: Are cryptocurrencies appropriate

Figure 12 illustrates the sample group's validity belief regarding to cryptocurrencies. As presented in the chapter 2.3.2, according to Bitektine & Haack (2015, 51) validity belief is an individual's perception of a general, macro-level validity. There are strong implications that personal level evaluations are greatly affected by collective level authorities' opinions, albeit they would be in contradiction with their personal evaluations, which is to be kept in mind when analyzing the results of the survey.

It is recognizable that majority (83%) of the respondents without prior experience in cryptocurrencies assume that cryptocurrencies are generally considered as appropriate whereas respondents who are aware of cryptocurrencies but have not used or invested in them are divided into two nearly equal groups; 48% assuming that cryptocurrencies are generally considered as appropriate and 52% assuming the right opposite.

What is your attitude towards cryptocurrencies? How would you evaluate cryptocurrencies?

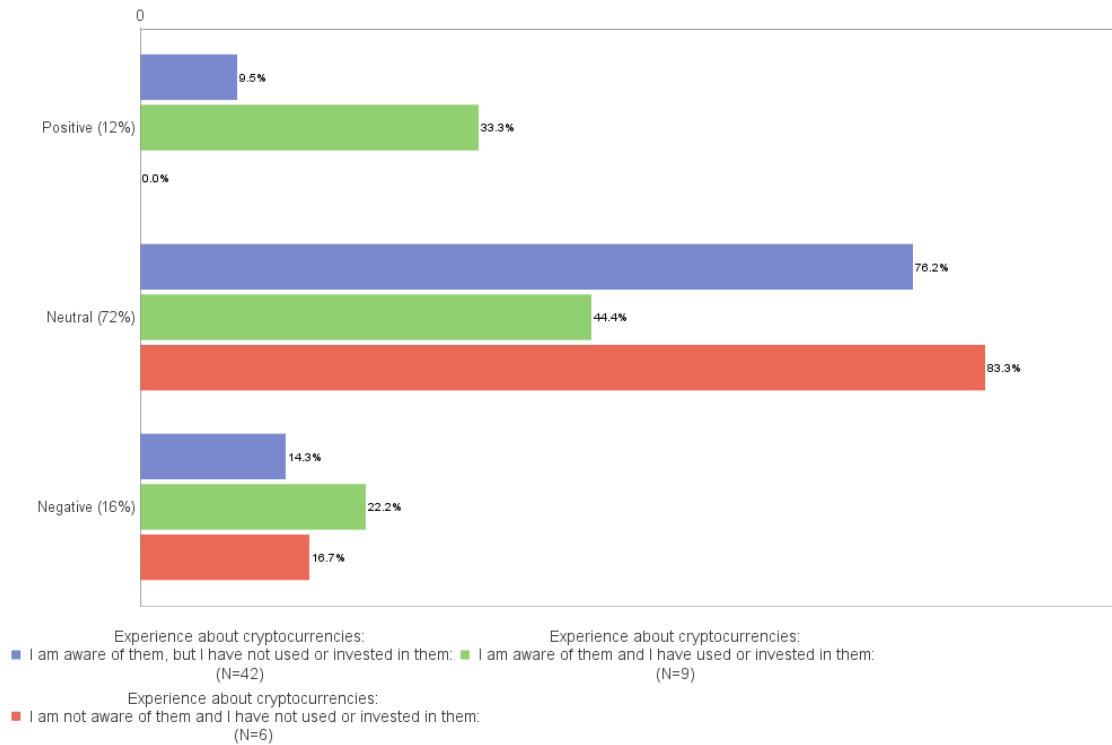


Figure 13 - Attitude towards cryptocurrencies

The figure 13 above, illustrates the respondents' personal attitude towards cryptocurrencies before article readings crosstabled with the respondents' previous experience about cryptocurrencies. The question "What is your attitude towards cryptocurrencies?" can be related to Bitektine & Haack's (2015, 51) to micro-level propriety judgements, as it refers to respondent's personal evaluation and judgements about whether an organization, its practices and actions are appropriate and desirable.

It is notable, yet likely assumable that respondents without prior knowledge and who were unaware of cryptocurrencies did not consider them as a positive thing, topic or issue. The results indicated the presumable outcome; the more the respondent is aware and involved in the evaluated subject, the more likely the respondent will have a clear opinion about it. As Aldrich's and Fiol's (1994, 648) argument, legitimacy can be defined and approached "by measuring the level of public knowledge about a new activity" or "by assessing public acceptance of an industry". Thus, if there is no awareness there is less acceptance.

For the question "What is your attitude towards cryptocurrencies?" the keywords used for justifying the negative attitude consisted, among other things, from the followings:

untrustworthy, unreliable, unpredictable, bad grapevines, suspicious, not enough information, distant, unfamiliar and complicated.

It was rather interesting to notice that albeit the majority of the respondents, 74%, responded that they are aware of cryptocurrencies and thus were named as “aware” group, 43% of the respondents within the group in question considered they have not enough information to form a clear opinion nor attitude towards cryptocurrencies. The most common keywords for justifying the neutral attitude prior to article readings were; *lack of information* or *not enough information*, which was used altogether twenty-two (22) times to explain the answer to neutral attitude towards cryptocurrencies. Within the “unaware” group 67% of the respondents used keywords *lack of information* to justify their neutral attitude towards cryptocurrencies. Whereas “expert” group’s explanations to their neutral attitude consisted of keywords such as; *no influence on personal life* and *future possibility*. It can be concluded that until certain level, increasing level of awareness clarifies and strengthens individual’s opinions and or attitude towards an evaluated subject, however after reaching the certain level of awareness personal involvement or resonance is required to maintain the clear and strong opinions and or attitudes.

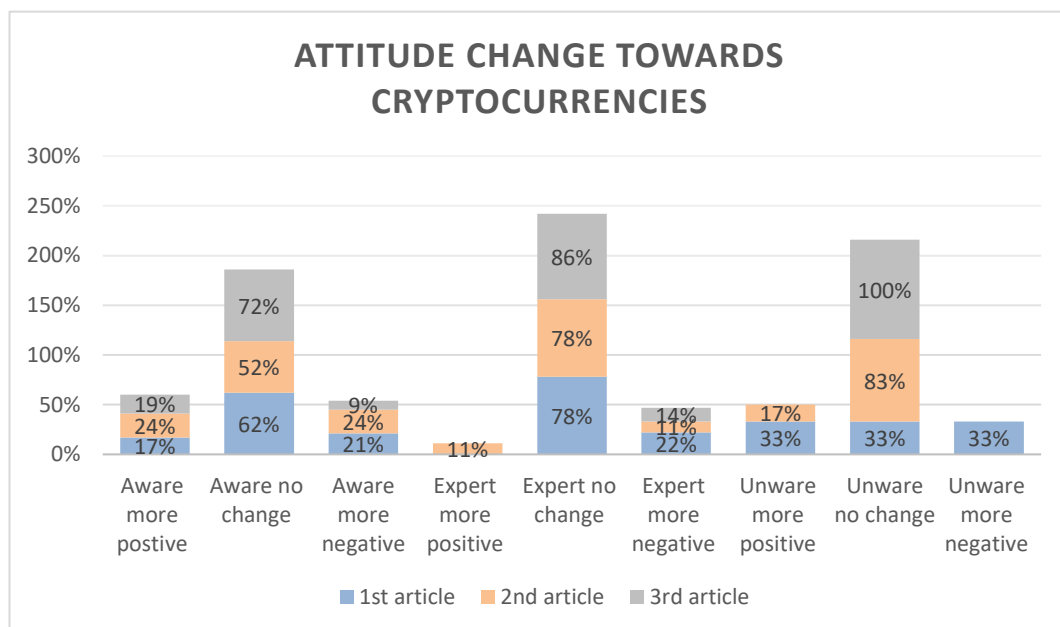


Figure 14 - Attitude shifts towards cryptocurrencies (Aware N=42, Expert N= 9 and Unaware N= 6)

Figure 14, above, represents the shifts in the sample group's attitudes after each article reading. Overall, the attitude fluctuation as per article reading was surprisingly high. "Unaware" group's attitude shifts, to both, more negative and more positive, were the highest with 33%. The second highest percentual fluctuation in the attitude, towards both more positive 24% and negative 24%, was within the "aware" group. The shifts in attitudes could be explained with a low level of awareness about the cryptocurrencies in the beginning which grew accordingly with the given articles, which again impacts on the individual's evaluation of the target topic. The respondents were asked to explain their choice of attitude with max 5 keywords and for justifying the change towards more negative, the respondents used among other things, the following key terms; *high or excessive energy consumption, instability and characters of a pyramid scheme*. These terms were exactly the same as used by the journalists in the provided articles. The attitudes towards cryptocurrencies within the "expert" group were presumably more stable in comparison with the "aware" and "unaware" groups, since, as expected, the awareness level was higher and thus it can be that the articles did not bring any new information to the "expert" group members.

6.3 Pragmatic micro-level-legitimacy views about cryptocurrencies

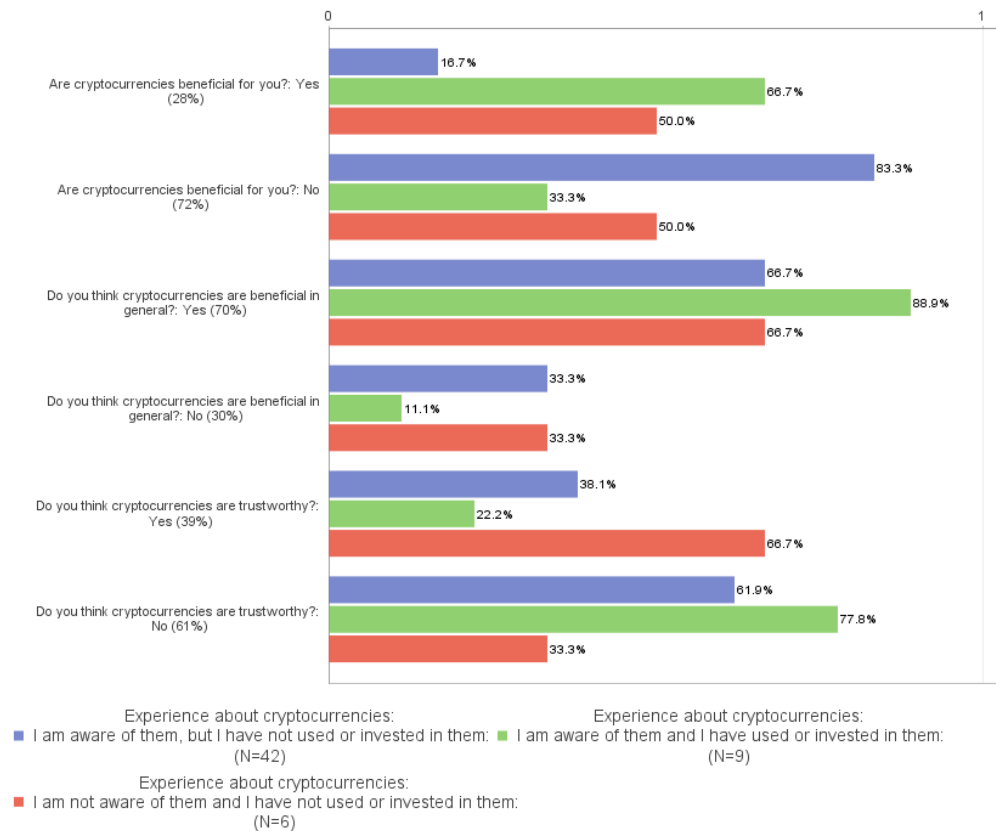


Figure 15 - Pragmatic legitimacy prior articles

Figure 15 above reflects the sample groups' pragmatic legitimacy views over cryptocurrencies based on their previous experience.

It was interesting to notice how several respondents associated cryptocurrencies in *investing* when they were asked whether cryptocurrencies are useful for them. Twelve (12) respondents answered, "not beneficial", because they had not invested in them. Six (6) of the respondents' answered "yes they are beneficial for them" if they are invested right. And two (2) of the respondents' answered that they did not consider cryptocurrencies beneficial anymore due to a poor prior investment. Altogether twenty (20) of the respondent's linked cryptocurrencies' usefulness to gaining money through investing in them. Only two (2) of the respondents' raised *security*, *privacy* and *online shopping* to explain their evaluation about cryptocurrencies' usefulness.

The following graphs describe how the views of the sample groups: expert, aware and unaware, in forms of pragmatic influential and dispositional legitimacy, fluctuates based on given articles.

6.3.1 Sample group’s pragmatic influence legitimacy views

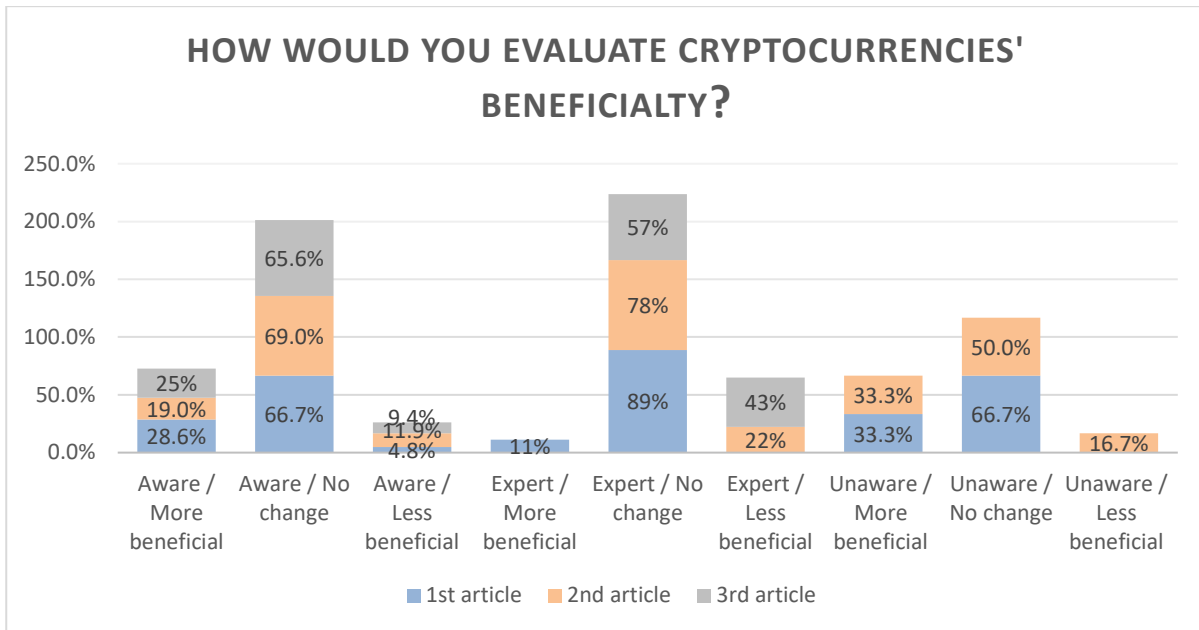


Figure 16 - Shifts in pragmatic influence micro-level legitimacy views within sample group (Aware N=42, Expert N= 9 and Unaware N= 6)

The first evaluation graph above, figure 16, demonstrates the impact of the given articles towards the pragmatic influence legitimacy view on micro-level over cryptocurrencies among the experience groups “aware”, “expert” and “unaware. It is notable how the articles could significantly amend the evaluation of cryptocurrencies’ usefulness to more beneficial, especially within “aware “and “unaware” groups. The figure 17 below, however, indicates that the evaluation of the overall usefulness of cryptocurrencies varied substantially within the “expert” group; -43% - +11%. This is especially notable since before the article readings, 89% of the expert group evaluated cryptocurrencies generally useful and beneficial, as can be seen from the figure number 17 below.

Aware / Beneficial	Aware / Not beneficial	Expert / Beneficial	Expert / Not beneficial	Unaware / Beneficial	Unaware / Not beneficial
67%	33%	89%	11%	67%	33%

Figure 17 - Pragmatic influence legitimacy views prior articles

6.3.2 Sample group's pragmatic dispositional legitimacy views

Sample group's pragmatic dispositional legitimacy views were analyzed by comparing the respondents' responses after each article reading, to the following question: *How would you evaluate cryptocurrencies' trustworthiness?*

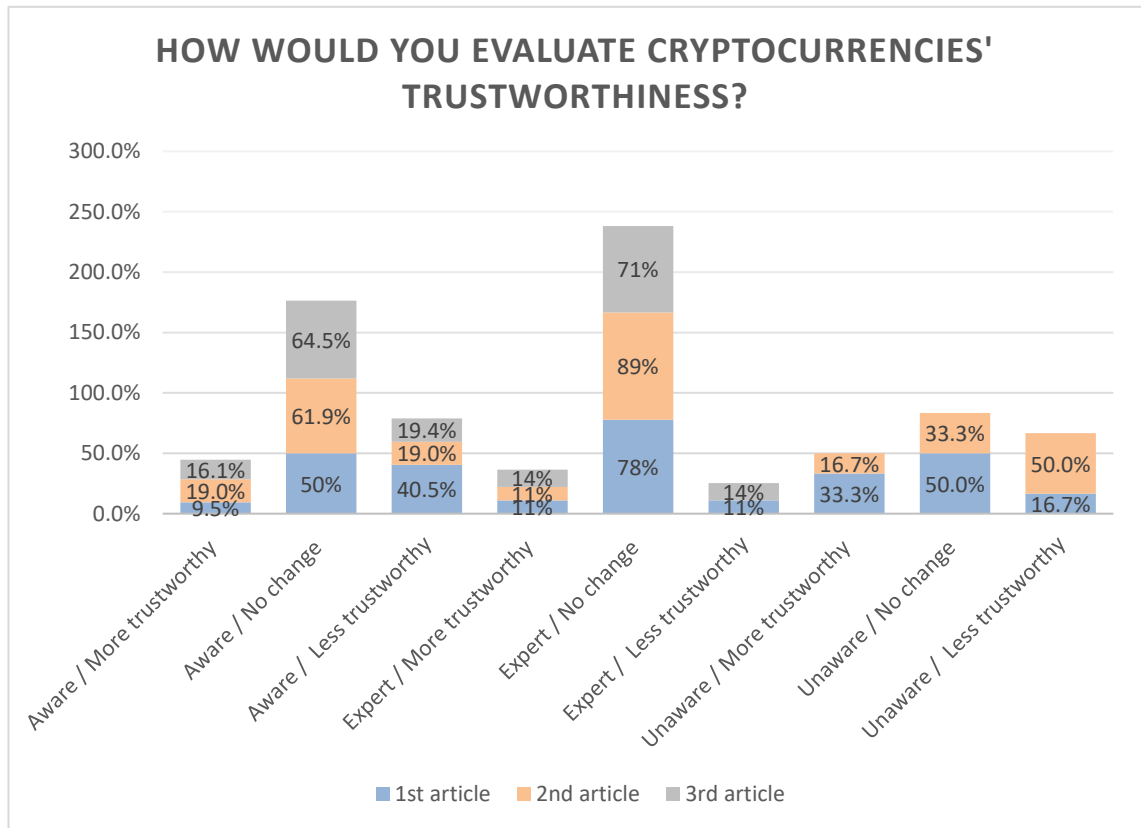


Figure 18 - Shifts in pragmatic dispositional micro-level legitimacy views within sample group (Aware N=42, Expert N= 9 and Unaware N= 6)

It was notable how the articles could remarkably affect on respondents' evaluation about cryptocurrencies trustworthiness to both "more trustworthy" but even more towards "less trustworthy" view. The minor fluctuations in evaluating the cryptocurrencies' trustworthiness within the "expert" group could indicate that the trust towards cryptocurrencies is relatively stable among the respondents, unlike "aware" group's trust, which fluctuated between 40,5% less trustworthy and 19% more trustworthy depending on the given articles.

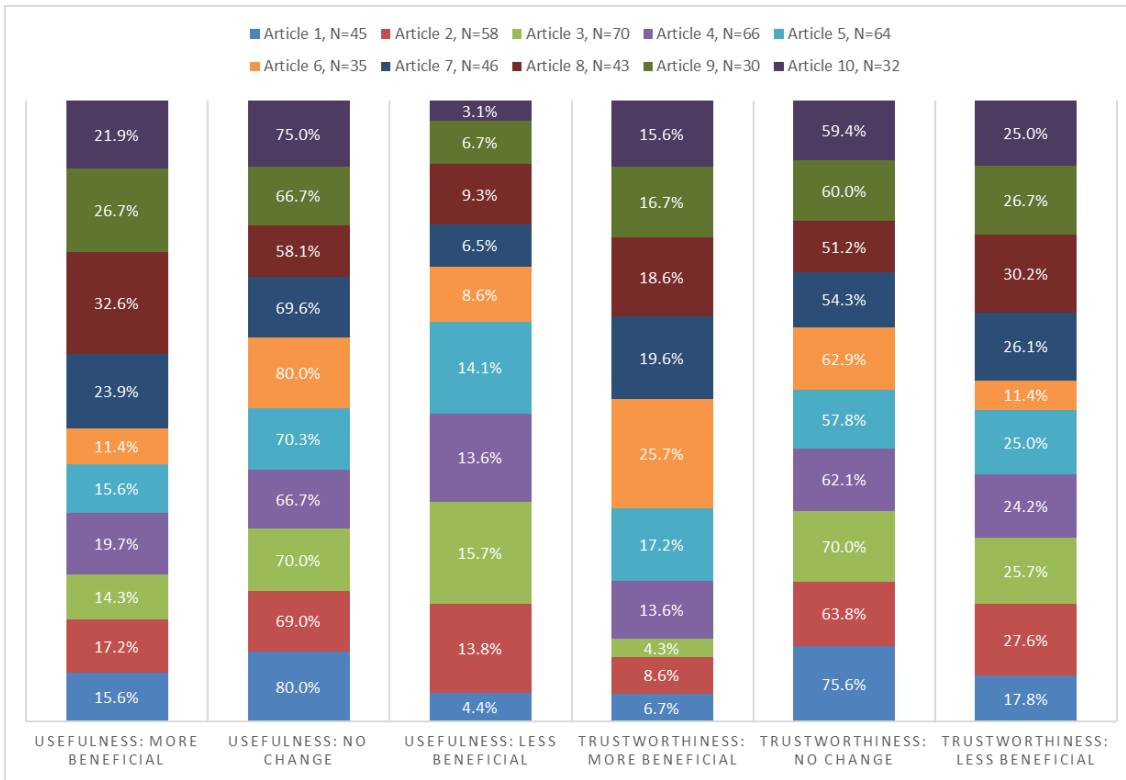


Figure 19- Shifts in pragmatic micro-level legitimacy view based on articles

The figure 19 indicates that articles number 7, 8, 9 and 10 have had a notable positive impact (+20%) on the evaluation of cryptocurrencies usefulness and article number 6 has raised the trustworthiness (+20%). Whereas articles number 2, 3, 4, 5, 7, 8, 9 and 10 have decreased the trustworthiness of cryptocurrencies.

6.4 Moral micro-level-legitimacy views about cryptocurrencies

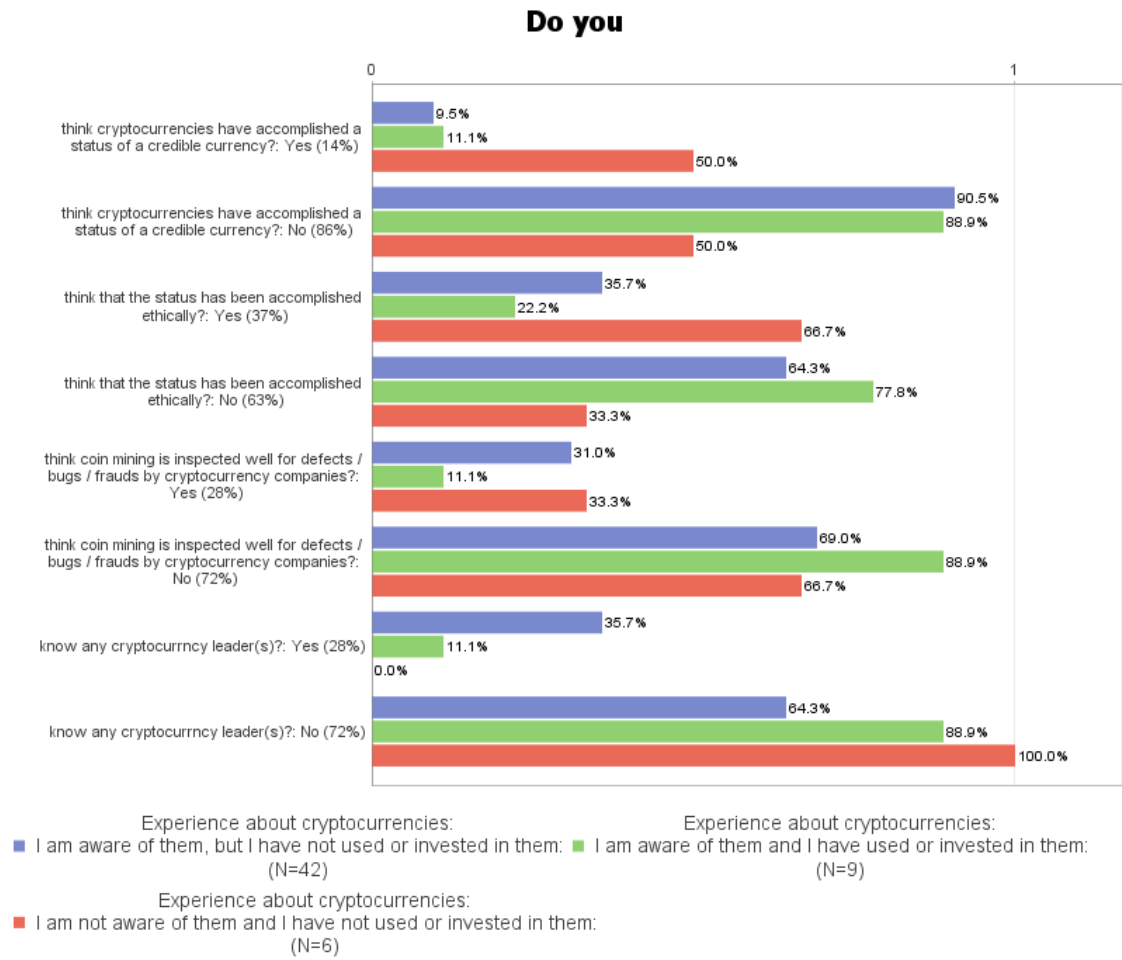


Figure 20 - Overall picture of target group's moral legitimacy over cryptocurrencies prior articles

The figure 20 above reflects the sample group’s moral legitimacy view over cryptocurrencies based on their previous experience prior article readings.

The following graphs describe how the micro-level moral legitimacy views of the sample group fluctuates based on given articles. Target group is again divided into three experience groups: Expert, Aware and Unaware, and graphs are presented accordingly.

6.4.1 Sample group’s moral consequential legitimacy views

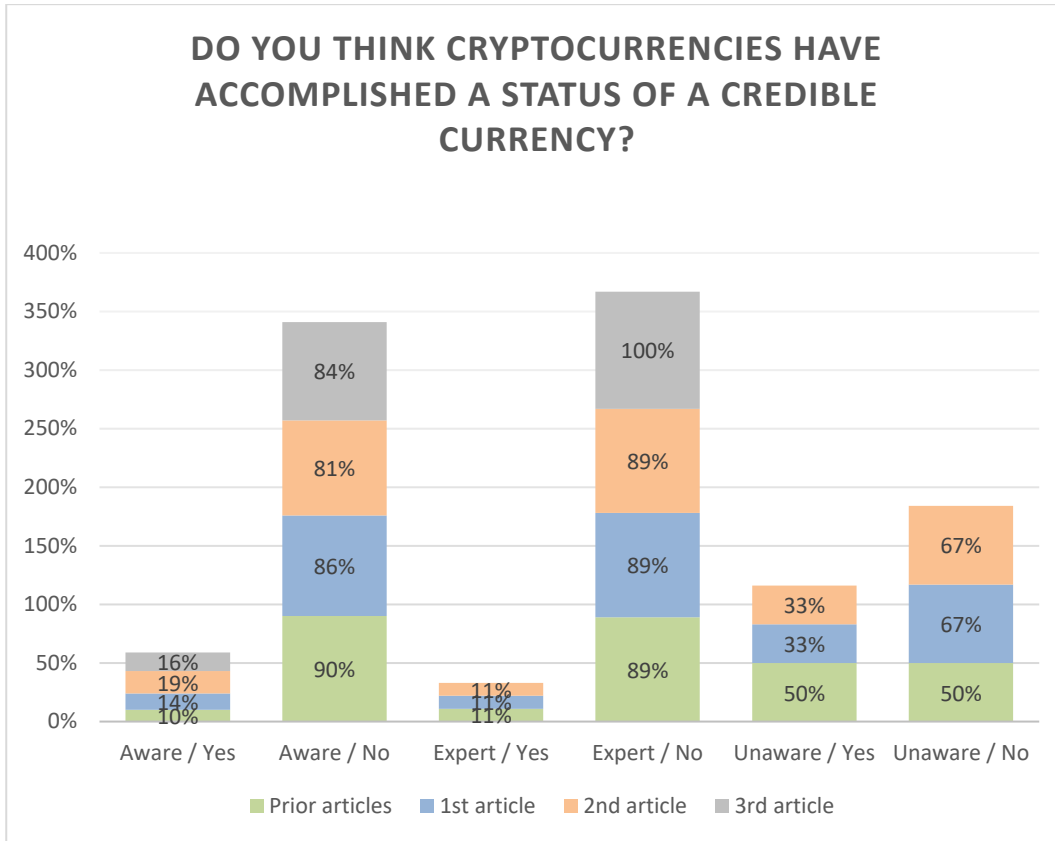


Figure 21 - Comparisons of cryptocurrencies creditability views within the sample group (Aware N=42, Expert N= 9 and Unaware N= 6)

It is notable that” unaware” group’s opinion about cryptocurrencies’ creditability was affected by the single articles and presented events substantially, which can be seen in the figure 21 above. The first evaluation about the cryptocurrency’s creditability by students without prior knowledge and experience about cryptocurrencies was divided equally fifty-fifty between positive and negative evaluations. Their opinion, however changed towards more negative evaluation after article readings, cumulating to 100% negative view. Even “expert” groups’ evaluation about the currency’s creditability changed towards more negative view, growing from 90% to 100%. The aware group’s evaluation however, representing the majority of the sample group’s evaluation, indicated change towards more positive view after article readings as the “yes, cryptocurrencies have accomplished a status of credible currency” answers within the aware group fluctuated between 10% and 19%.

The results indicate that sample group's micro-level moral consequential legitimacy evaluations about cryptocurrencies, based on their outcome as a credible currency, are weak, as majority, prior to article readings, answered "no" to the presented question about cryptocurrencies creditability. However, it is notable that the views and evaluations can be affected by and through media. As the table above presents the majority's evaluation changed towards more positive view about cryptocurrencies creditability after article readings.

6.4.2 Sample group's moral procedural legitimacy views

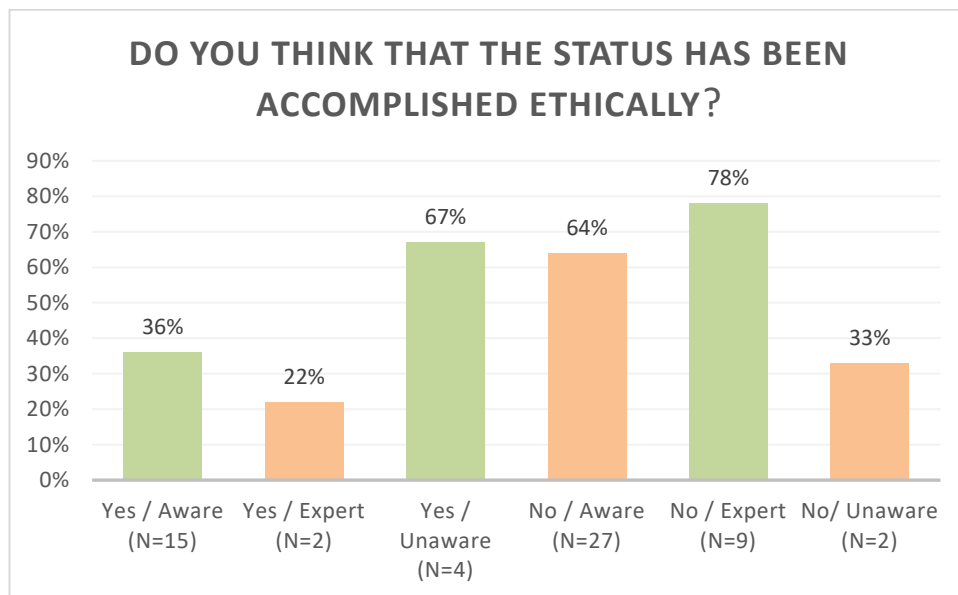


Figure 22 - Comparisons of cryptocurrencies ethicality views within the sample group (Aware N=42, Expert N= 9 and Unaware N= 6)

The second question related to of the sample group's moral procedural legitimacy views about cryptocurrencies divides opinions more equally between yes and no answers compared with the creditability question. Prior to article readings, 37% of the sample groups' respondents think that cryptocurrencies status is accomplished ethically, whereas 63% of the respondents think that the status has not been achieved ethically. The respondents were asked to explain their answer with maximum 5 keywords. The respondents arguing that cryptocurrencies have accomplished their current status ethically complemented their answers with words such as; *no ethical dilemma, no reason why not, no contradicting arguments and if you do not count in electricity consumption*. Respondents

who argued against cryptocurrencies ethicality raised following concerns: *power and electricity consumption, unfamiliar, not enough information, distant, connected with criminal activities, too little information* etc.

The written explanations indicate that lack of information and unfamiliarity about cryptocurrencies raises uncertainty. Yet again, it would be fruitful to further research the reasons behind the information lack, since as mentioned earlier, cryptocurrencies have enjoyed from media's attention both in good and bad, resulting to more than five hundred and fifty one thousands of electronically available articles between 2009 and 2017, via ProQuest platform. It can be speculated if the rather demanding language used in these articles could have an impact, since they include financial jargon and specific terminology related to investing, economics and stock exchange. Yet again, cryptocurrencies are mostly attracting investors, which might explain the language, since for them the language is daily jargon. From outsider's perspective it makes you wonder; would it make a difference if the language would be easier to read and understand? Would it attract more public? Would people know more about cryptocurrencies if the articles about them would be more approachable?

6.4.3 Sample group's moral structural legitimacy views

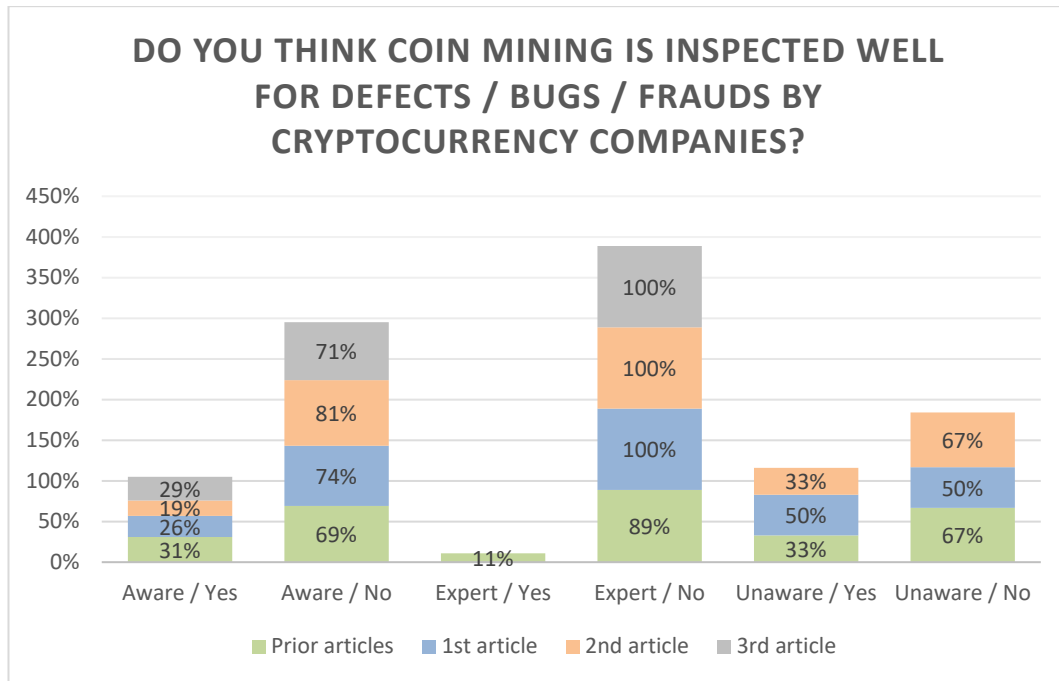


Figure 23 - Comparisons of cryptocurrencies' security views within the sample group (Aware N=42, Expert N= 9 and Unaware N= 6)

The Figure 23 above indicates that the expert group, which is familiar with cryptocurrencies, has less trust in cryptocurrencies' security routines when it comes to inspecting bugs, defect and frauds. The expert group based their responses followingly: *requires further familiarization with the technology, several hacks / thefts, too little information to argue otherwise, more information required*. This could indicate that the respondents understand the basic features of cryptocurrencies but also acknowledge the limitedness of their information and thus are not willing to argue on behalf of the security without further facts.

Unaware group's views fluctuated the most after article readings. 33% of the respondents considered that cryptocurrencies have oversights coin mining well prior to article reading. This view, however, changed to more positive direction after first article, raising the percentage to 50%. After second and third article their view shifted in the right opposite way towards more negative perception decreasing the alike number of respondents to zero. *Cyberattacks, silk road, criminal activity and not enough information* were the keywords unaware group mainly used to justify their responses.

The overall moral structural legitimacy views of the sample group shifted from status where prior to article readings 28% of the respondents considered cryptocurrencies have oversighted the coin mining well and 72% considered they have not to a level where only 13% of the respondents considered that there is enough inspection whereas 87% though there is not. The research indicates that the sample group's moral structural micro-level legitimacy view is not high, but what is more interesting is that it can be affected by and through media. Unaware group was most susceptible for a change in their evaluation towards more positive structural view whereas expert and aware groups were more likely to change their structural legitimacy evaluation about cryptocurrencies towards more negative direction.

6.4.4 *Sample group's moral personal legitimacy views*

The following graph, figure 24 below, presents how familiar the sample group is with the cryptocurrency leaders and how they evaluate the leaders' charisma. According to the research approximately one third of the respondents within the sample group were familiar with at least one leader, whereas two thirds of the respondents did not know any leaders from the industry. Since there are strong implications that personal legitimacy is transient and is has low effect in institutionalization, this question was presented to the respondents only once (Suchman 1995, 579-582).

What is interesting to notice is that despite the fact that only 28% of the respondents, to be precise, were familiar with the leaders within cryptocurrency industry, yet 77% of the respondents altogether viewed the leaders as non-charismatic. It can be only speculated why so many respondents associated the leaders, without knowing them, to non-charismatic persons. Could the distance of the business field and the currency itself, which has been raised in several comment fields, have an impact to the view? Or could it be that we are used to relate new innovations and organizations with strong personalities such as Mark Zuckerberg & Facebook and Elon Musk & Tesla, to name few. Personal branding has strengthened its position as a robust marketing tool within the innovation field, which could be explained with the common need to be able to relate to the presented content. If the presented new product, process or service is difficult to comprehend, it becomes distant and unrelatable. Yet, if the new innovation, product, process or service is presented with the presenter's personality in front, people can most likely find something in common with the person, relate and are thus more likely to buy the idea. Personal branding

does not, however, fit well into cryptocurrencies decentralized ideology where the core relies on collective actions, which again could explain why the leaders within the industry have not highlighted single individuals.

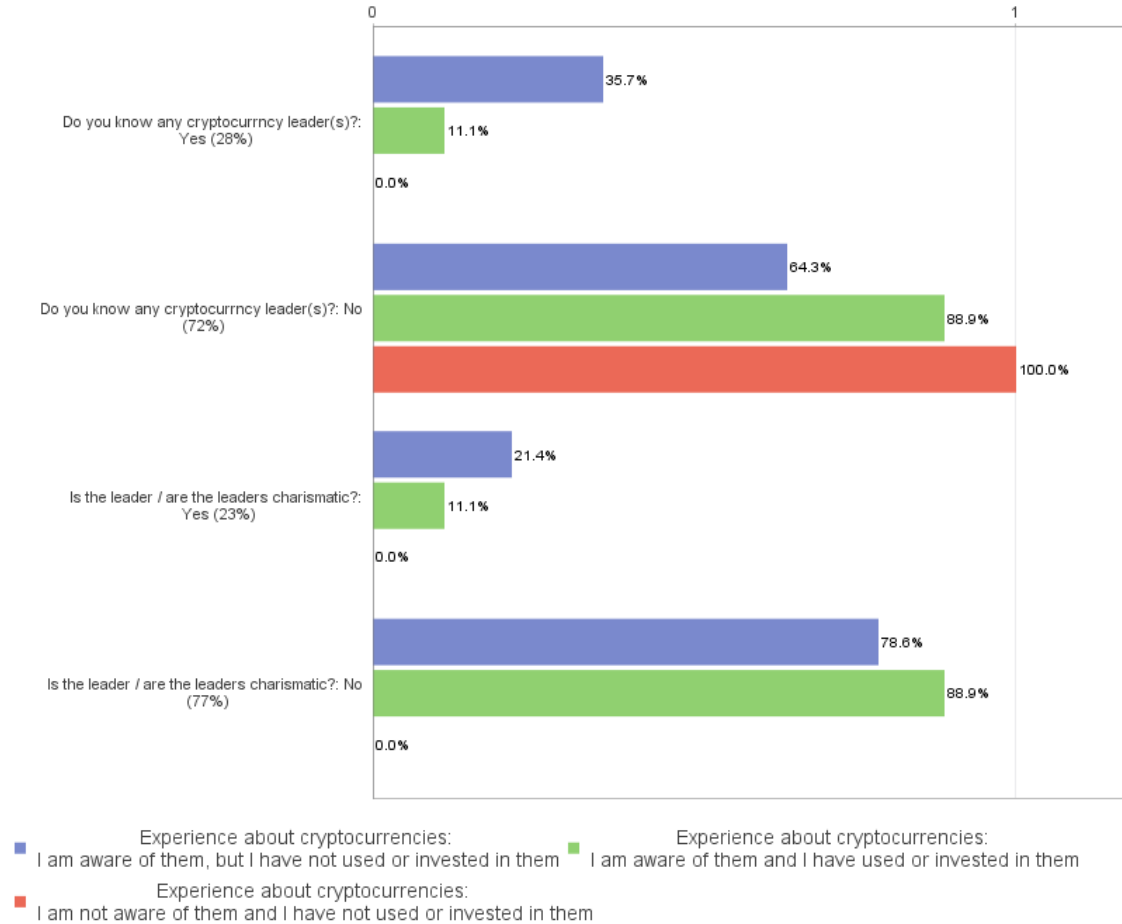


Figure 24 – Familiarity of cryptocurrency leaders

6.5 Cognitive micro-level-legitimacy views about cryptocurrencies

Sample group's cognitive legitimacy views over cryptocurrencies were evaluated and analyzed with the following questions: 1. Do you feel that you understand why cryptocurrencies exist? And 2. Do you think that cryptocurrencies will be the only alternative for money transfer in the future? Both questions were presented to the sample group prior to article readings and also after each article to monitor the possible change in the answers which again could implicate a change in the respondent's cognitive legitimacy views. Both questions were presented to the sample group prior to article readings and also after

each article to monitor the possible change in the answers which again could implicate a change in the respondent’s cognitive legitimacy views.

6.5.1 Sample group's cognitive comprehensibility views

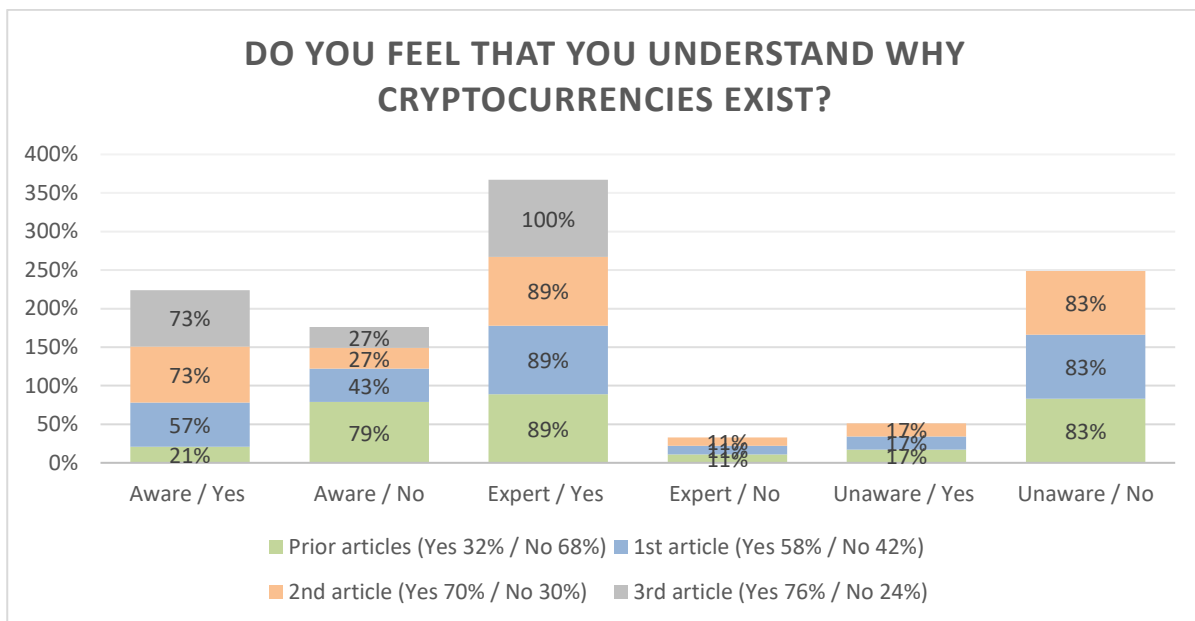


Figure 25 - Sample group's comprehensibility views about cryptocurrencies (Aware N=42, Expert N= 9 and Unaware N= 6)

The figure 25, above, presents how one of medias’ product, articles, can amend our understanding and thus possibly have an impact on cognitive comprehensibility view on micro-level as well. It was interesting to notice that “aware” group, presenting the majority (74%) of the respondents, was more responsive to new information provided in the articles. The responsiveness could be partly explained with previous results presented in chapter 6.1, where 43% of the respondents within “aware” group considered they have not enough information to form a clear opinion or attitude towards cryptocurrencies prior to article readings, as they used *lack of information* to justify their neutral attitude (please see more about sample group’s background in chapter 6.1). And as more interestingly the attitudes within the “aware” group changed to both more positive and more negative +/- 24% as per given article. Figure 25 could indicate “aware” group’s willingness to learn more about cryptocurrencies, as their evaluation of their own understanding steadily increased accordingly with the number of articles read.

The figure 25 also indicates that the articles had no influence whatsoever on respondents within “unaware” group. It can be speculated if the rather demanding language used in these articles could have had an impact, since some of the articles included financial jargon and specific terminology related to investing, economics and stock exchange. On the other hand, the article set also included easy to follow articles, which also had no impact on increasing the understanding why cryptocurrencies exist within the “unaware” group. It can be speculated whether a single article or a set of articles can deepen ones understanding about a new industry’s or invention’s existence if the industry or invention itself is considered *distant, intangible, blurry*, in the first place, as “unaware” group described cryptocurrencies. The evaluations of one’s own understanding within “expert” group were relatively stable, as expected.

The results could implicate that if an individual is aware about a subject under evaluation and does not yet have a clear opinion or attitude formed, he / she may be more responsive to contents presented in media and thus more impressionable which again could implicate that their cognitive comprehensibility views could be influenced by and through media.

6.5.2 *Sample group's cognitive taken-for-grantedness views*

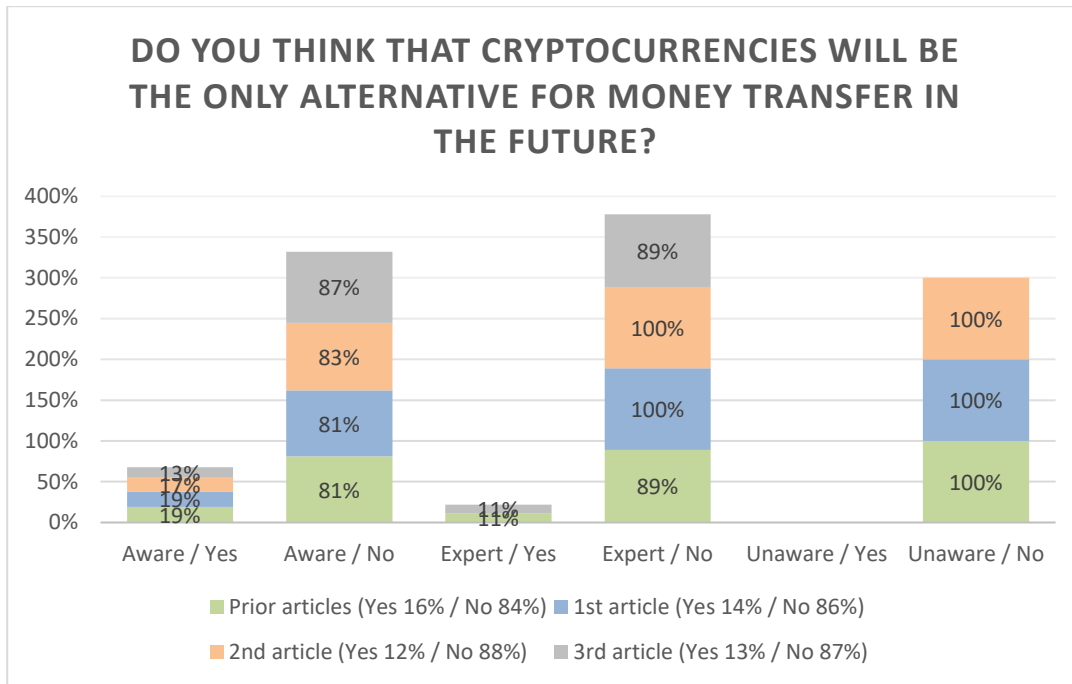


Figure 26 - Sample group's taken-for-grantedness views about cryptocurrencies (Aware N=42, Expert N= 9 and Unaware N= 6)

Figure 26 above clearly presents that within the sample group, not a single article nor a set of articles, had any positive impact on increasing the respondents taken-for-granted view towards cryptocurrencies. On the contrary the articles had a minor negative impact on the respondent’s taken-for-granted evaluations, as can be seen in the figure 26. The minor negative impacts may be partially explained with new information provided in the articles, which again may have triggered the respondents to question their view.

7 CONCLUSION

The research question of the study was: Does macro-level authority, media, have an impact to individual's micro-level legitimacy views? And its sub question was: If yes, does it affect to all legitimacy categories; pragmatic, moral and cognitive legitimacy views? The answer to the both questions is yes. It is crucial to understand how all aspects of micro-level legitimacy views; pragmatic, moral and cognitive, can be affected by and d through media. Based on this study it cannot argued how long lasting these impacts are, however, it can be argued that macro-level authority has an impact on all micro-level legitimacy evaluations and judgements.

The extended multilevel SWOT analysis aimed to deepen our understanding about the possible interdependences related to individual's micro-level legitimacy views and single and or series of events related to new industry, where cryptocurrency bitcoin was used as an illustrative example. According to the extended SWOT analysis, *volatility* had the most significant impact on the sample group's (N=57) micro-level legitimacy evaluations. The sample group's interest and responsiveness towards content about cryptocurrencies' volatility can be partially explained with the sample group's strong association of cryptocurrencies' usefulness to investing. Majority of the respondent's linked cryptocurrencies' usefulness to gaining money through investing in them (please see chapter 6.1 for further information). *Volatility* was used several times to justify respondents' choice why they considered cryptocurrencies less trustworthy after reading articles. This linked *volatility* to pragmatic dispositional legitimacy view as it emphasizes the respondents' evaluations whether the target of evaluation can be trusted. It can be argued that *volatility had a negative impact on respondent's pragmatic dispositional view as the term was used to justify their choice "less trustworthy"*. Moreover, *volatility* was used numerous times after article readings to explain respondents' answers why they thought cryptocurrencies cannot be considered as a creditable currency. The use of *volatility* as a justification to explain one's judgement about cryptocurrencies' creditability connected it with moral consequential legitimacy views as it related to industry's accomplishments related to quality. *Thus, it could be argued that volatility had a negative impact on the sample groups' evaluations related to moral consequential legitimacy views*. The term was also used, by the respondents who considered they understood why cryptocurrencies exist, when they were asked to describe shortly their view. Additional usage of the key term occurred when the respondents were asked if cryptocurrencies will be the only money transfer alternative in

the future, to explain their answer “no”. This linked *volatility* to also cognitive comprehensibility.

Another notable category, *unwanted associations*, rose from extended SWOT analysis as the terms under the category were mentioned most often within the survey explanation fields. The terms under the unwanted association were used to justify respondents’ evaluation of cryptocurrencies’ trustworthiness and in explaining creditability towards more negative direction. This *linked unwanted associations negatively to respondents’ pragmatic dispositional and moral consequential legitimacy views*. Unsurprisingly unwanted associations also had a negative impact on respondents’ attitude towards cryptocurrencies.

The results of the engaging survey indicated the presumable outcome; the more the respondents were aware and involved in the evaluated subject, the more likely the respondents had a clear opinion about it. The impact of increasing awareness on individual’s attitude towards the evaluated subject can be observed in the figure 14. The results indicated that, within the sample group, increasing level of awareness clarified and strengthened individual’s opinions and or attitude towards an evaluated subject, until certain level, however, after reaching the level of awareness personal involvement or resonance was required to maintain the clear and strong opinions and or attitudes. The results also implicated that if an individual is aware about a subject under evaluation and does not yet have a clear opinion or attitude formed, he / she may be more responsive to contents presented in media and thus more impressionable which again could implicate that their cognitive comprehensibility views could be influenced by and through media.

It was also recognizable that majority of the respondents without prior experience in cryptocurrencies assumed that cryptocurrencies are generally considered as appropriate.

The survey results also indicated that sample group’s micro-level moral consequential legitimacy evaluations about cryptocurrencies, based on their outcome as a credible currency, were weak, as majority, prior to article readings, answered “no” to the presented question about cryptocurrencies creditability. However, it was notable how the views and evaluations could be affected by and through media. As the figure 21 presents, the majority’s evaluation changed towards more positive view about cryptocurrencies creditability after article readings.

The overall moral structural legitimacy views of the sample group shifted from status where prior to article readings one third of the respondents considered cryptocurrencies have oversighted the coin mining well and 72% considered they have not, to a level where

only 13% of the respondents considered that there is enough inspection whereas 87% though the level of inspection is not enough. The research indicated that the sample group's moral structural micro-level legitimacy view over cryptocurrencies is not high, but what is more interesting is that it could be affected by and through media.

Figure 26 clearly presents that within the sample group, not a single article nor a set of articles, had any positive impact on increasing the respondents taken-for-granted view towards cryptocurrencies. On the contrary the articles had a minor negative impact on the respondent's taken-for-granted evaluations, as can be seen in the figure 26. The minor negative impacts may be partially explained with new information provided in the articles, which again may have triggered the respondents to question their view.

7.1 Implications and theoretical contribution

As mentioned in the chapter 7, it is crucial to understand how all aspects of micro-level legitimacy views; pragmatic, moral and cognitive, can be affected by and through media. Based on this study it cannot be argued how long lasting these impacts are, however, it can be argued that macro-level authority has an impact on all micro-level legitimacy evaluations and judgements. This information can be utilized in developing and implementing a marketing and communication strategy.

It is also essential to recognize the external threats. In case of cryptocurrencies the external issues, opinions and impressions tampered their reputation without any further evidence. Purely an image of the negative and unwanted terms associated with bitcoins was enough to have a negative impression of bitcoins. Cryptocurrency entities should take these threats seriously as they seem to have quite significant negative impact on the respondents' micro-level legitimacy evaluations and judgements, at least within this sample group. This is especially important as most of the listed terms cannot be affected by cryptocurrency entities them self, as hacks, thefts, crashes and frauds are usually the blame of poor third-party exchange company security level. Yet, these thefts are hacks are directly linked to the cryptocurrencies and their reputation.

Clear and coherent communication about a new invention or industry should be emphasized within cryptocurrency entities, since as the results implicated, individual's cognitive comprehensibility views, can under certain circumstances be influenced by and through media. Cognitive legitimacy is often considered as the most powerful form of

legitimacy, which again could strengthen Bitcoin's position as a creditable currency, if that is what Bitcoin is aiming for.

Furthermore, this study allowed identifying inter-relationships between the existing theory and the empirical findings of this study and responded to the presented research questions. By combining the theoretical information, the empirical findings a theoretical framework was created which can be considered as a theoretical contribution.

7.2 Limitations and suggestions for further research

It would be enlightening and interesting to further research the emergence of cryptocurrency market from the rhetorics, or from "persuasive language", point of view. At the time of this research, cryptocurrency companies were heavily decentralized which again complicated the research of used rhetorics. Although, it must be recognized that today there are thousands of cryptocurrencies existing, when back in 2008 and 2009 there was only one that we are aware of and thus as the industry grows the communication models and methods will most likely also develop. Researching the communication from cryptocurrency entities to public offers an interesting area for future research. In the future it would be highly recommended to address the complexity of phenomenon of building legitimacy for new markets from used, centralized rhetorics point of view. This would provide wider and more comprehensive description of legitimacy's impact on the emergence of new markets and organizational forms.

The written explanations in the structured engaging survey indicated that lack of information and unfamiliarity about cryptocurrencies raises uncertainty. Yet again, it would be fruitful to further research the reasons behind the information lack, since as mentioned earlier, cryptocurrencies have enjoyed from media's attention both in good and bad, resulting to more than five hundred and fifty one thousands of electronically available articles between 2009 and 2017, via ProQuest platform. It can be speculated if the rather demanding language used in these articles could have an impact, since they include financial jargon and specific terminology related to investing, economics and stock exchange. Yet again, cryptocurrencies are mostly attracting investors, which might explain the language, since for them the language is daily jargon. The articles used in the engaging survey were all published by media giants with global accessibility and with strong online presence and thus there is a possibility that the respondents have come across with the

articles earlier. From outsider's perspective it makes you wonder; would it make a difference if the language would be easier to read and understand? Would it attract more public? Would people know more about cryptocurrencies if the articles about them would be more approachable?

It would be fruitful to understand which media sources, in today's world, have gained a macro-level authority position. As we are all the time exposed more and more to various attitudes, information, facts, opinions, views, from several information sources, such as newspapers, online magazines, official reports, press releases, blog posts, twitter tweets, podcasts, vlogs, LinkedIn articles and other social media sources, it would be essential to understand the real impact of the informal information sources to legitimacy construction.

As this study used quasi-experimental research methods in executing the research, topics which sometimes are under such contextual constrain, such as nuances and trend changes in micro-level legitimacy views, were possible to address. Two major findings rose from the empirical findings; 1. all legitimacy category views can be affected by and through media and 2. that majority of the respondents without prior experience in cryptocurrencies assumed that cryptocurrencies are generally considered as appropriate. Most notable findings occurred within the sample group related to their moral consequential legitimacy and cognitive comprehensibility views on micro-level. It is commonly acknowledged that pragmatic legitimacy views are easier to impact as they reflect the audience self-interests directly or indirectly. However, it is notable that also parts of moral and cognitive legitimacy can be also impacted towards more positive evaluation and judgements. However, these findings call out for further research. One potential idea could be to address the topic with more qualitative approach, which would mean a smaller sample group but simultaneously it could bring deeper insight to the level and duration of the observed impacts. Another interesting approach to study the same setting could be executed with true experimentation with larger sample group. This approach could provide more insight about the causalities of the nuance and or trend changes in individual's micro-level legitimacy views.

8 SUMMARY

To summarize, what is in common in most of the research about emerging industries is the importance of gaining and maintaining legitimacy (Aldrich & Fiol 1994, 645; Suchman 1995, 578; Zimmerman & Zeitz 2002, 414; McGahan et. al. 2004, 2-3; Kennedy 2008, 271; Schultz et. al. 2014, 50). For this reason only, it is critical to deepen our understanding about legitimacy's complexity and multiplicity. This research has gathered an introduction to the existing research over legitimacy (Suchman 1995) and its surrounding themes, such as institutional theory (Meyer & Rowan 1997 and DiMaggio & Powell 1983) as background and emerging industries (Aldrich & Fiol 1994 and McGahan et. al. 2004) as related environment. We have understood that in today's contemporary world, media in all its forms is a crucial macro-level actor with significant influencing power on individuals impressions, attitudes and behavior towards the content in question, and thus has an impact on micro-level legitimacy (Kennedy 2008, 274; Humphreys et. al. 2010, 5; Schultz et. al. 2014, 34; Bitektine & Haack 2015, 50-51).

When reflecting emerging industry theory to cryptocurrency bitcoin, it can be argued that, 2011 was the year and stage of fragmentation with all the cryptocurrency networks testing out the best possible solutions and protocol, in industry life-cycle terms. (Forbes 2017; McGahan et. al. 2004, 2-3.) Even though it can be argued whether the cryptocurrency industry has proceeded to the next level, shakeout, or not. Time has indicated that bitcoin, as it is today, is the most prominent cryptocurrency with the highest market capitalization value and thus it can also be referred as the dominant model. It can be also argued whether bitcoin was the dominant model already in 2013 after the Silk Road scandal, since before the scandal bitcoin was still in its infancy and was not yet enjoying of wide, global public awareness. The scandal demonstrated that bitcoins are scalable and relatively secure way to make transactions in a larger scale. In industry life-cycle terms the scandal showed bitcoin's scalability and potentiality and ensured its position as a dominant model.

It can also be collectively agreed that the dominant model, bitcoin, has developed with all its soft and hard forks as evidence. However, the second stage, shakeout, includes forcing the unlike organizations to exit. At the moment, there are more than thousands of cryptocurrencies and new ones keep emerging frequently. (Forbes 2017.) McGahan et. al. (2004, 2-3) argue that the rise of the dominant approach is essential for the industry to

develop, survive and succeed since the efficient and scalable dominant approach brings along possibilities to reach economies of scale.

When considering industrial strategies for gaining legitimacy from cryptocurrencies point of view it should be noted that the idea of cryptocurrencies is claimed to be risen from dissatisfaction towards central bank and its actions after the financial crisis. “Bitcoin offered an alternative way to manage a currency, through mathematical rules rather than a metaphorical printing press” (Financial Times 2015). Additionally, during the earliest years of the industry emergence, the leaders or innovators behind cryptocurrency were referred as cyberpunks (Forbes 2011). That is to say, cryptocurrencies have been and still are all about decentralization. They do not support centralization in any form and most certainly have not a centralized communication department. Although, it must be recognized that today there are thousands of cryptocurrencies existing, when back in 2008 and 2009 there was only one that we are aware of and thus as the industry grows the communication models and methods will most likely also develop.

Even though the emerging industry’s legitimacy strengthens it does not guarantee it will be divided equally among the founding organizations, some might benefit and gain more legitimacy than others depending on their technical superiority, reliability and public awareness. (Aldrich & Fiol 1994, 663.) This was interesting to notice, as majority (90%) of the respondents within the sample group were able to name at least one cryptocurrency and what connected all the answers with cryptocurrency names was Bitcoin. And as mentioned, there are currently more than 1 500 cryptocurrencies existing. This supports the theoretical implication that the legitimacy is not divided equally within the industry in question.

The literature also presents various methods how to gain, maintain and repair legitimacy, but one of the most important factors is that legitimacy is considered easier to maintain than gain or repair. After all, legitimacy management bases greatly on communication, more precisely to communication between the organization and its several publics. (Suchman 1995, 577; Schultz et al. 2014, 34).

As this study used quasi-experimental research methods in executing the research, topics which sometimes are under such contextual constrain, such as nuances and trend changes in micro-level legitimacy views, were possible to address. Two major findings rose from the empirical findings; 1. all legitimacy category views can be affected by and through media and 2. that majority of the respondents without prior experience in cryptocurrencies assumed that cryptocurrencies are generally considered as appropriate. Most

notable findings within the sample group were related to nuance shifts and trend changes in respondents' moral consequential legitimacy and cognitive comprehensibility views on micro-level. It is commonly acknowledged that pragmatic legitimacy views are easier to impact as they reflect the audience self-interests directly or indirectly. However, it is notable that also parts of moral and cognitive legitimacy can be also impacted, even towards more positive evaluation and judgements. This study can be considered as a shout out for legitimacy researchers to act on the risen empirical findings and further studying the phenomenon of impacting micro-level legitimacy by and through media.

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Table 1 - Appendix 1, Framework

STRENGTHS	Keyword qty / articles	Keyword qty / survey	LEGITIMACY CATEGORY	WEAKNESSES	Keyword qty / articles	Keyword qty / survey
- Easy & fast online transactions	8	22	Pragmatic / Cognitive	- Electricity consumption	6	9
- Infra	12	4	Pragmatic	- Infra	12	4
- Near anonymity	11	30	Pragmatic / Moral / Cognitive	- Near anonymity	11	30
- Decentralization	13	5	Pragmatic / Cognitive	- Decentralization	13	5
- Not backed up by gov. / comp.	4	4	Pragmatic / Moral	- Not backed up by gov. / comp.	4	4
- Volatility	14	68	Pragmatic / Moral / Cognitive	- Volatility	14	68
- Leaders	17	0		- Leaders	17	0
- Superior features	7	11	Pragmatic / Cognitive	- Computing power	7	4
OPPORTUNITIES	Keyword qty / articles	Keyword qty / survey	LEGITIMACY CATEGORY	THREATS	Keyword qty / articles	Keyword qty / survey
- Signs of acceptance	45	24	Moral / Pragmatic / Cognitive	- Unwanted associations	36	35
- Regulations	7	12	Moral / Pragmatic / Cognitive	- Regulations	7	12
- Drug transactions	37	17	Pragmatic / Moral	- Drug transactions	37	17
- Authority references	27	17	Pragmatic / Moral / Cognitive	- Authority references	27	17

Table 3 – Appendix 3, Article distribution to the sample group

Group 1	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

Group 2	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

Group 3	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

Group 4	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

Group 5	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

Group 6	Article number
Student 1	1, 2 and 3
Student 2	2, 3 and 4
Student 3	3, 4 and 5
Student 4	4, 5 and 6
Student 5	5, 6 and 7
Student 6	6, 7 and 8
Student 7	7, 8 and 9
Student 8	8, 9 and 10
Student 9	9, 10 and 1
Student 10	10, 1 and 2

