

An Interpretative View on Innovation Acceptance for Bitcoin and Blockchain Phenomena: Knowledge Creation and Activism in Social Learning

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INTRODUCTION

Nowadays, the global condition seems to be characterized by emblematic and rapid modifications especially in the information and technology (IT) hardly impacting on the socio-political and economic perspective. The advent of the Internet, the digitalization of processes and communication technologies are affecting cities, public/private entities/companies and humans are subjected to a new “smart” view. In this sense, the digital transformation (DT) seems to be necessary, but it remains really difficult and shows criticalities under a wide-range of aspects. Sousa et al. (2022) consider that hand in hand with innovation advancements, innovative administration methods should be experienced. In this sense, organizations, considered mirror systems of the evolving reality, perceive the necessity to adapt themselves to the evolving environment in which they operate. These adaptations are indisputable solutions to socio-political issues, and technology can help the decision-making processes by the application of innovative and “*disruptive technologies*” (Bresciani, 2016; 2017) like blockchain and its descending extension (bitcoin), more in general: cryptocurrencies. As done by the advent of the Internet and the e-mail and instant messaging for communication systems, technologies like blockchain could become commonplace on a large scale (Olesen & Myers, 1999), only by a general acceptance and barriers reduction. A great paradigm of perspective could be shaped by the blockchain technology, able to affect virtually all segments of socio-organizational life, shaping the borders of new way for promoting services for citizens, as considered by Allam and Dhunny (2019) and Secinaro et al. (2021), as well as the working environments in private and public sector (Tandulwadikar, 2016; Rodriguez Bolivar, 2018; Hughes et al., 2019; Cogliano, 2017; Lacity, 2018; Ruozi, 2017; Rainero & Modarelli, 2021a; Rainero & Modarelli, 2021b). Nowadays, the digital technologies are increasing and constantly in evolution. They are able to permit a wide-range process of data-acquiring; these data made available on several platforms, by the World Wide Web protocol and the databases are simply memorized for storage and accumulated in huge quantities (Correani et al., 2020). The emerging problem is strictly linked with the knowledge creation. A lot of data could create information, but at the same time the risk of information-overload and information chaos (Kleijnen et al., 2009; Lefebvre et al., 2015). The authors use this evidence to exploit the observation of humans’ behavior referred to the BTC-BC phenomenon. Precisely the construction of knowledge, on a tool that in itself builds knowledge, tracking, storing and distributing countless quantities of data

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in real time (Blockchain) (Knirsch et al., 2019; Mendling et al., 2018; Ruozi, 2017; Harvey and Cheng, 2017), would assume a pivotal role in shaping the lines of a model of action, in which the voluntariness in information seeking, should be considered as an antecedent of acceptance, and the knowledge creation (in terms of informed context building), a great strategy to facilitate digital transformation (DT) and technologies penetration in the work environments. In fact, as observed in the last two years, if on one hand, the Covid-19 and the coronavirus deriving crisis, exacerbated the need for digitalization and the pervasiveness of web-mediated communication systems, in some ways accelerating the acceptance of new tools, with scarce knowledge on it and scarce preeminence of use in the specific environment of application (Rainero & Modarelli, 2020). Clegg (2000) affirms that a scarce involvement of employees into the processes of DT, should be considered as one of the main causes of failure related to digital and innovative transition. In this sense and according to what aforementioned, the exploratory and embryonic approach to the empirical analysis proposed, due to the rapid emergence of the phenomenon object of the study, still smoky today, and the observation time (2018-2019), would be a great starting point for the main implication of the interpretative paradigm provided by this study on the BTC-BC scene. Considering the social learning view, the aforementioned implication could be found on the managerial side, thanks to the possible indirect knowledge-based strategy operated by the internet users (potentially employees and workers), able to shape an informed social context, promoting the future probable and potentially facilitated application of these “disruptive” technologies in several work-environments. The objective of the study proposed tries to overcome the Blockchain and Bitcoin phenomena per se and the influences they produce, their interacting actions, but primarily to go beyond the emergent enthusiasm and excitement to their plausible introduction in different sectors. The direction of the research design follows the assumptions inherent the origin of Bitcoin and Blockchain. First of all, the main assumption could be posed starting from the fact that the Bitcoin emergence would be due to the Blockchain introduction, as innovation in technological ambit. In this sense, the authors, observing the reality and the advancement state of the emergent technology, in addition to the wide-range interest provoked at every level, from the private sector, to the public one and academic side, started to consider BTC-BC spread, embryonically a social learning phenomenon. In fact, considering humans’ information-seeking approach towards the “new” (in this case: BTC-BC as innovative tools), that activity would be directly linked to the legitimacy and acceptance need (Oliver, 1991). Only by the reduction of barriers and reticence, inherent and endemic in human beings against the innovation and change, this latter (in terms of innovative development) could be useful for constructive applications in several environments (Karpela, Hallikos & Dohlberg, 2017; O’Leary et al. 2018; Subramanian, 2018; Kokina, Mancha & Pachamanova, 2017; Guo & Liang, 2016; Iansiti & Lakhani, 2017; Azaria et al. 2016; Tarr, 2018). The main focus of the research study proposed is based on the intrinsic potential that these new technologies, defined by Bresciani (2016), Borgonovi (2018) and other academics as “disruptive”, could have by their impact on social, political and economic side, specifically through a generalized acceptance mediated by knowledge-creation. The study proposed by the authors tends to explore the assumption aforementioned, strictly intersecting three main areas of interest: (a) information-seeking, (b) its great connection with knowledge-creation processes, (c) finalized to the building of consciousness in decision-making oriented to the innovative tools application, mediated by the acceptance. According to the main pillars of the research, it should be necessary to trace the lines of what expressed by Berryman (2008) in the paradigm of the theory of rational-decision, and more pragmatically in the theory of rational-management provided by Migliavacca et al. (2017). In this direction, framed theoretically, the authors, following the aims and scope of the research, connect the decision-making approach to the knowledge creation by the individual/organizational information-seeking activity, shaping the lined of a social-learning paradigm,

as expressed by Bandura (1971). The Foucauldian view (1976) on the voluntariness to know: “*the voluntariness to know and to know the true*” (Foucault, 1976), would open a privileged point of view that the authors capture intending the activity of seeking for information as a medium for individual/organizational knowledge acquisition finalized to decision-making. That approach, always in the Foucauldian vision (Foucault, 1982), could be linked to the interpretation of the “*action on the others’ actions and vice versa*”, shaping the lines of the Bandura’s (1971) social-learning-paradigm. Uncertainty (Alchain, 1950) and innovation barriers and reticence to adoption (Kleijnen, Lee & Wetzels, 2009) could be more simply faced and anticipated by the intake of the voluntariness (Agarwal & Prasad, 2007). The scope of the research is not focused on the way to demonstrate the external pressure and the persuasiveness, nor the internal motivations that move humans to information-seeking activities acquiring knowledge on new technologies’ characteristics, potential and risks, with consequent reduction of reticence levels toward the “new”. Contrarily, the authors, perfectly aware that what aforementioned can happen, intend these influences as limitations of the study, recognizing future more in depth analysis, expressly designed for the investigation of the variables abovementioned. Mishra, Allen & Pearman (2014) suggest that the perceptive projection related to the knowledge on characteristics, potential and risks innovation-related (i.e. BTC-BC) would enhance the social-learning perspective at theoretical level. In accordance with this theoretically point of view and the aims and scope of the study, the authors try to consider a specific design able to fill a literary gap concerning innovation acceptance/reluctance by conscious/unconscious decision-making processes. The user’s perceptions and innovation timing and diffusion have been widely investigated, starting from the seminal and masterful work provided by Rogers (1995). On the other side, it is crucial to investigate on the decision-making literature, the determinants related to innovation acceptance/reluctance. According to Kleijnen, Lee and Wetzels (2009) innovation resistance is strictly related to the consciousness. Assumed that, the study tries to demonstrate (considering humans conscious and critical decision-makers), that voluntariness in the process of individual/organizational knowledge creation could be an antecedent of innovation acceptance, basing on the fact that reticence, or subsequent acceptance, are based on rationality in decision-making. The research structures a design particularly oriented towards a mirror system for the validation of what has been stated, both a netnographic analysis and a field analysis aimed at verifying the existence of a behavior of information-seeking, strictly connected to the emergence of the BTC-BC phenomenon and to the construction of knowledge in the sense of a social learning view. The main points of the paper are structured as follows: section 1 introduces the study framing the main pillars of the investigation; section 2 considers the retrospective perspective involving the BTC-BC emergence and the social learning paradigm; section 3 focuses the attention on the main pillar of the research, approaching the knowledge-creation through the activism in information-seeking behavior; section 4 reflects the main issues and controversies related to the question of knowledge and innovation as an integrated perspective; section 5 explains the main solutions, according to the justification of the research architecture and the methodological approach used. In this section are reported the main findings of the multimethod investigation; section 6 reflects the future perspective of the study and the section 7 concludes.

BACKGROUND

BTC-BC Emergence

In the meantime, as observed by Perrone (2019) and others academics and corporateists like Dini (2017), Spano (2019) and Venier (2018;2019), the emergence of cryptocurrencies started in parallel with the rise and the advent of the blockchain technology, that is the architecture enabling the cryptocurrencies generation (Harvey & Cheng, 2017; Drescher, 2017; Cogliano, 2017; Ruozi, 2017; Lacity, 2018; Hughes et al., 2019; Swan, 2015; Venier, 2018; Mendling et al., 2018). According to what aforementioned academic discussions arose especially in financial terms. In fact, Fosso Wamba et al. (2020) consider bitcoin, blockchain and fintech by a systematic literature review, Makarov and Schoar (2020) consider the market and trading activities of cryptocurrencies like bitcoin, Lucey et al. (2022) consider the uncertainty index of cryptocurrencies in general. Adding studies on the theme, Su et al. (2020) investigate on financial implications, Vranken (2017) thinks about sustainability of both blockchain and bitcoin, and Gallersdörfer, Kllaßen, and Stoll (2020) consider the energy consumption of cryptocurrencies. By contrast Urquhart, considers the inefficiency of the bitcoin system. Others investigate the relationship existing between BTC-BC and Covid-19 (Conlon, & McGee, 2020; Chen, Liu & Zhao, 2020; Dutta et al., 2020; Umar & Gubareva, 2020; Sarkodie, Ahmed & Owusu, 2022; Marbough et al., 2020). Zhou et al. (2020) focus their interest especially on the main applications of the BC technology in several sectors of social-organizational life; Rainero and Modarelli (2021a; 2021b) suggest implication for public sector and traceability in Food and Beverage distribution. As already known, the BC IT infrastructure reached great visibility starting from 2008, the year in which an unknown creator, named by a pseudonym (Satoshi Nakamoto) started to coin virtually the cryptocurrency identified as BTC (bitcoin) (Guttman, 2014) using the BC technology. Specifically identified as a mutual-distributed-ledger, by Mainelli and Milne at seminal level in 2016, the BC should be considered in its entirety as a register, structured on lines of transactions on-line shared, able to facilitate memorization in a not-centralized manner, diffusing data related to the transactions operated by several nodes of the network, providing a certification mechanism able to make unalterable the data entry process (Kiviat, 2015; Swan, 2015). Considering the BC technology as a kind of accounting tool, it could be possible to say that it would be able to trace the lines of what has been done, including an automatic auditing system by the validation and advertising process of the data previously made unmodifiable by the IT architecture. It is true that the rise of the cryptocurrencies is due by the advent of the BC technology, but the importance of this latter, even it is the main agent of innovation, derives by the former, relating its main application to financial movements, as suggested by Tandulwadikar (2016). By contrast, only recently a great discussion has been opened examining criteria of application of the BC technology to several sectors affecting organizational perspectives and its paradigms of actions in business generation and services provisions, going further and overcoming its original output of application (Rodriguez Bolivar, 2018; Hughes et al., 2019).

The Social Learning Hermeneutical Perspective Linked to Innovation Acceptance

The phenomena based on learning conditions, as suggested by Bandura (1971), derive from the experience made directly by the individual. The direct experience, in accordance with the assumptions aforementioned, is based on the direct observation or the direct action. In this sense, individuals per se or socially-organized are capable to actively construct knowledge. Information-seeking concerning new

themes is the main activity that individuals per se or socially-organized take in place to preliminary construct their own comprehension. Morrison (2002) suggests that seeking for information denotes an expression aimed to reach feedback for uncertainty reduction, providing self-evaluation models and knowledge. According to what affirmed by Case (2007) the activity of information-seeking is a crucial and regularly operated part in individually and socially-organized oriented behavior. Agarwal and Prasad (1997), in their seminal work, investigate reticence to accept innovation, considering this conscious choice based on an adequate knowledge construction linked to risks, potentials and characteristics inherent the innovation. Scarcely investigated in literature, but of primary importance, the previous step of knowledge-creation process on the innovative tools, is strictly connected to the way of seeking for information; in this case “activism”. Assumed that a kind of knowledge could be indirectly and passively created, the best way recognized to make a qualitative kind of knowledge is the “active” one. Little attention has been attributed to the innovation resistance (Kleijnen, Lee & Wetzels, 2009), and on this gap Kleijnen, Lee and Wetzels (2009) structured a conceptual frame able to evidence the main drivers posing barriers to acceptance (rejection, postponement, opposition) linked to its antecedents identified as the (a) levels of change requested and (b) contrasts with previous existing structures. According to the conceptual frame provided by Kleijnen, Lee and Wetzels (2009): (a) rejection sentiments seem to spring up from the activism in evaluation processes and an endemic disinclination in adopting innovative tools; (b) postponement behavior is shaped by an orientation in voluntarily delay innovation acceptance awaiting opinions on it; (c) the opposition sentiment should be considered as a radical position in actively contrast innovation attempting sabotages. Kleijnen Lee and Wetzels (2009) provide a summarized frame of the literature explaining the antecedents of innovation acceptance, in addition, Garcia, Bardhi and Friedrich (2007) consider the main causes of reluctance, but they focus scarcely the knowledge-creation process based on “active” behaviors toward the information-seeking. Contrarily, Kleijnen, Lee and Wetzels (2009), consider “active” behaviors and the inherent voluntariness as largely evident. In this sense, the interpretive paradigm would open a second perspective of the research. Considering individuals per se or socially-organized, as able to make choices in a conscious manner, under the lens of social-learning frame (Bandura, 1971) and the evidenced literary gap, activism in knowledge-creation processes (by searching for information) should be intended as a mitigator of innovation reluctance. That would facilitate acceptance of the innovative tool after the information processing identified by Neisser (2014) individuals or groups take in place aimed to knowledge-creation.

KNOWLEDGE-CREATION AND ACTIVISM IN INFORMATION-SEEKING BEHAVIOR

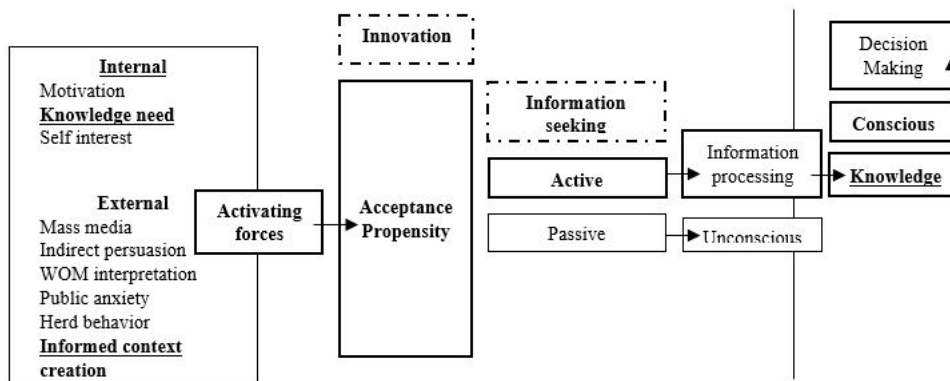
In literature, is widely recognized that to make conscious choices, inherent the more general decision-making process, and in this case finalized to innovation acceptance, it would be necessary to reach a good knowledge on the argument, and on characteristics, risks and potential of the new tool created (Davis, 1993). Specifically, the process by which individually or organizationally humans seek for information, finalizing this searching activity to Knowledge-creation, has been precisely shaped and investigated by Ellis (1989) through its theoretical frame named Ellis’ Model. Several dimensions of information-seeking activities have been structurally investigated by Wilson (1997), who considers expressly two approaches: (a) passive and (b) active. The authors, precisely investigating the theme according to the objectives and scopes proposed, consider the “activism” in searching for information, in other way providing an analysis focused on the “ACTIVE” paradigm related to the information-seeking behavioral approach.

The activism in information-seeking could be considered as the most common approach provided by individuals and organizations with the aim to acquire a self-generated knowledge.

Seeking for Information Behavior

As said in the previous paragraphs, the information-seeking behavior is considered as a preliminary activity that individuals per se or socially-organized take in place in the attempt to acquire knowledge on new themes. Ellis (1989) by a seminal work, provides a referring model strictly oriented on the information-seeking approach, shaping the lines of six paradigms of the related behavior: (a) a “starting” phase to approach the novelty; (b) a “chaining” approach, structuring a following phase for connecting sources; (c) a “browsing” phase that shapes a more deepen research of the information on the novelty; (d) a “differentiating” phase structured for a following identification of fruitful sources; (e) a “monitoring” phase on the developments related to the novelty object of the analysis; (f) an “extracting” phase for the information-related novelty and source-verification. The phases aforementioned express a scientific paradigm of how individuals per se or socially-organized acquire knowledge by information-seeking activities. According to what affirmed, with the aim to align the scope of the research with theoretical frame, literature and empirical analysis, the authors insert into the questionnaire a section reserved to the habits and approaches in seeking for information toward emergent innovations. At theoretical level, in literature is recognized that the action of seeking for information and the decision-making activity, would occur recursively (Kuhlthau, 1999). Supposing that recursively, the authors decided to fragment this sequence, considering the two moments of information-seeking and decision-making for knowledge-creation (Figure 1). Following the shaped perspective, the design of the research should be oriented focusing the attention non properly on the decision-making processes, as considered by Saaty (2008), but it would be more convenient, preferable and propaedeutic, analyze the previous process, by which construct conscious or unconscious decision-making, based on active or passive information-seeking behaviors.

Figure 1. Theory: innovation acceptance by information-seeking and knowledge-based decision
 Source: authors' elaboration



Polanyi (1958), considering a reflection on knowledge, affirms that the act of knowledge, intended as knowledge-construction, is strictly related to the “activism” in understanding. In this sense, knowledge is achievable by the “active” participation of human being intended as knower who actively seeks for information finalized to self-knowledge construction. Considering what aforementioned, it should be directly possible to discern: (a) the activism in information acquisition finalized to knowledge construction, made by voluntariness (internal dimension) and (b) always structured by voluntariness, but oriented to the external dimension, there would be the voluntary action by which derives the aim to create an informed context as strategically-driven solution at organizational level. This latter dimension, intended as a strategical solution, should be intended as one of the main implication at organizational level (knowledge-based strategy), applying the same reasoning for individuals, transposed to social-organizational wider scale. That, according to the authors’ assumptions, would facilitate innovation acceptance, but that specific investigation leaves space to other more in depth research protocols, object of new perspectives and contribution developments. Contrarily, the study proposed expressly structures a specific design, focusing its pillars on a single investigation dimension, relating the human’s behaviors concerning information-seeking to the emerging phenomenon of BTC-BC.

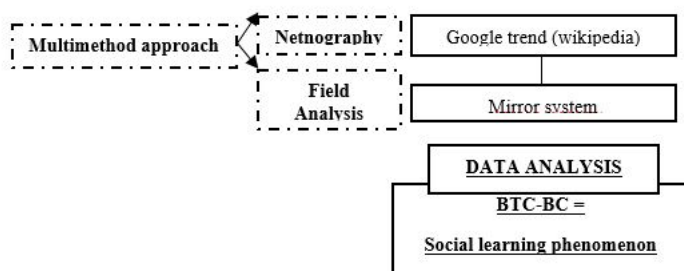
SOLUTIONS AND RECOMMENDATIONS

Methodological Approach and RQs

The previous introductory paradigm, able to shape the scenario of the investigation, should be considered as propaedeutic for structuring the research protocol and the design of the methodological aspects oriented to the hermeneutic perspective, inherent this paragraph. As observed in literature by Wilson (2000), the seeking for information activity took in place by the individuals per se or in an organized manner, considers two ways of action: (1) the direct interaction with analogic systems (i.e. newspapers, books, libraries, archives etc. – already in part digitalized nowadays), or (2) by the purely direct digital mediation (i.e. World Wide Web and dedicated web-sites). For the study propositions, the authors started the investigation process observing the World Wide Web community, as a filtered sample of social reality. The authors considered the information-seeking behavior, as the main observation pillar, intending it as a transposed linear reality into a virtually shaped environment (netnographic approach). That approach has been improved by a verification process of observed data validity by a mirror-protocol enhanced by an analysis on the field. In general, as suggested by Kozinets, Dolbec and Earley (2014), at methodological level, the netnographic approach would be able to favor a good view of many phenomena occurring in the offline dimension, but it remains partial specifically focusing on the web occurrences, and the direct observation of the reality would consider also a great part of the online phenomena, but it tends to remain partial in the sense it analyzes only a partial perspective of the online phenomena. That methodological frame, would be the principal motive that lead the authors structure a multi-method approach, combining netnography and field analysis, attempting to avoid criticalities and providing a great matching perspective of the two environments analyzed and used as sample (web community and individuals in person). By this approach, the data provided as results and hermeneutically shaped by the authors, would find confirmation and strength. The research, as aforementioned in the abstract and

at introductory level, shaping the borders of its design, would tend to trace a hermeneutic paradigm on the phenomenon BTC-BC, possible to be defined by the social learning dimension, considering that as a privileged way to provide a clear frame on the humans' behavior linked to a "disruptive" emergent innovation, probably able to revolutionize social life as done by telephone before, Internet, e-mail and instant messaging. In this sense, investigating the dimension of voluntariness in information seeking, the authors can consider it, as antecedent able to reduce reticence to acceptance, opening new perspective for knowledge management strategies applicable in future (dimension underestimated in literature). The hypothesis moved and the assumption structured would be evidenced by netnography, as already evidenced. Thanks to this method, promoted by the help of the Internet, has been structured using the Google Trends tool for the data collection, reinforced by the analysis operated on the field (questionnaire-based) able to contribute in creating a kind of mirror for comparison (Figure 2). The main objective of the research is that to demonstrate the existence of a great voluntariness in seeking for information activity oriented to knowledge-creation on a totally new theme in a continuously evolving context. A paradigm of crucial importance is that of the innovation acceptance, intrinsically linked to the possibility of wide-range utilization of the innovative too. In this direction the voluntariness should be considered as antecedent of innovation acceptance, because if present, humans would treat individually the aim of creating knowledge on potentiality, characteristics and risks inherent the innovation they consider, matching their own scope with the perspective of the tool analyzed, reducing reticence levels, or posing barriers to it.

Figure 2. Result-oriented methodological paradigm
 Source: authors' elaboration



The Internet environment, according to the paradigm considered, would provide a wide-range of observational opportunities for researchers, structuring new approached to learning conditions. Furthermore, the Internet environment would be useful because it provides the possibility to reach information and data based on tracking activity. In this sense, the World Wide Web, should be considered as a great resource for researchers, making possible to combine, as in this particular research design, behavioral analysis on the Web and in reality. According to the fact that emergent technologies are profoundly modifying the information environment and a strong evolution would be visible in methods and approaches of pursuing knowledge due to the always wider informative extension has been made accessible without cables globally. In this sense, as suggested by Xumei (2010) should be necessary an enhanced sensitivity on the information-seeking behavior, aimed to comprehend individual or socially-organized actions in knowledge-construction processes related to: (1) novelties; (2) consciousness for reticence or acceptance toward innovation. Concentrating the empirical and hermeneutic efforts on the main phase

of knowledge-construction toward innovations' characteristics, potential and risks, and on the following one concerning conscious decision-making process (passible of internal and external influence), the objective of the research proposed (generally univocal) should be intended as multifaceted in the ways to be reached due to the different dimensions inherent the design conducting to the results. The authors formalize two interconnected and interacting research questions (RQs) as main pillar of the study, following enumerated and specified in detail:

RQ1: Should BTC-BC be considered a phenomenon based on social-learning paradigm?

The study, based on a specific research design, investigates that starting from the aid of netnography, considering the frequency of searching activities on the Web;

RQ2: Should voluntary active behavior in seeking for information be shaped as an antecedent and facilitator of innovation acceptance?

The research design, adequately structured, provides an investigation by analysis on the field questionnaire-based.

Methodologically, as mentioned before, the research protocol and design ad hoc structured by the authors, considers a new way to promote ethnographical surveys thanks to the Internet as observation field. More in general, Hammersley and Atkinson (1983) suggest that ethnography necessitates the presence and participation of the observer as insider in groups observed daily lives for a wide-range time useful to interpret the routines, the traditions, operational procedures, beliefs, existing subcultures etc., inherent the sample object of the analysis. In this sense, researchers can consider a real observation of what has been defined by Shatzki (2016) as "human coexistence". This kind of analysis, in the authors' view and research perspective, has been transposed on the virtual plan, mediated by the Internet as a privileged environment for monitoring indirectly behaviors by the statistical trends provided by the tracking systems of the searching engines. Through these lines of action, the authors decided to formalize an ethnographic method mediated by web and recognized in literature as netnography or as defined by Hine, already in 1994 "virtual ethnography". The authors are confident that the methodological perspective provided, and subsequently enhanced by a field analysis, would be really fruitful and propaedeutic for understanding individual and socially-organized behaviors related to the BTC-BC phenomenon by analyzing inherent information-seeking dimensions. According to what suggested by Kozinets (2002) ethnography as research method is largely used in sociological studies, but it necessitates of long periods in observing activities, elaboration of notes and recordings for hours and it requires to the researcher notable competences and investments. With the aim to face these inconveniences, the authors decided to develop and apply an emergent and always more conventional ethnographic research, mediated by a double filtering activity by the Internet. In this sense, the authors provide (a) an observation not limited to a screen-mediated analysis, but also addicting (b) a technological tool provided by "google trends" data-analysis, more deepen investigated and compared by a survey on the field. Doing this, the time-consuming activity deriving from direct observation of behaviors in seeking for information by a non-pervasive approach, has been remediated thanks to the preliminary filter generated on Google tracking system. That preparatory investigation implemented by the authors would find its substance thanks to the inclusive approach that permits to the observer a precise reproduction of an ethnographic observation, overcoming the time-consuming observation process by the trend analysis provided by Google and the presence on the field by screen-mediation, transposing the reality and natural environment on the virtual

mode. From an additional methodological perspective, the authors provide a subsequent field-analysis conducted with the aim to enable a correspondence among the observation made on the Web and the observation made on the field non-virtually-mediated.

Thanks to this methodological approach, the authors attempt to verify the presence of activism (Choo, Detlor & Turnbull, 1999) in information-seeking behaviors, adequately supported by the field analysis questionnaire-based (Krosnick & Presser, 2009, Dolnicar & Grun, 2007; De Leeuw, Hoox & Dillman, 2008; Burgess, 2001), structuring an enhanced netnography. The conditions that are created would permit to match the results deriving from the web-mediated observation and the ones expressed by the questioned sample by the survey. In literature (Savolainen, 1995), concerning information-seeking and information sources, is largely recognized that the prevalence of information sources and channels are selected on the base of ability to use the tool. Justifying and supporting the choice made by the authors in terms of observational channel, is due to the fact that the 88% (Meho & Haas, 2003) of the population with access to the Internet, uses electronic tools for seeking-information and acquire knowledge on arguments. According to Meho and Haas (2003) and Savolainen (1995), the methodological approach used for this research, considers a preliminary observation on Google trends, necessary to frame the daily people searching behavior on BTC-BC themes, using criteria like: “bitcoin”, “blockchain” and “bitcoin-blockchain wikipedia”). Furthermore, the authors provide a comparison of these trends with the BTC price among a certain observation period, accessing STATISTA database. The resulting evidence shows that a similar higher peaks (i.e. December 2017) need to be considered, overlapping interest in information-seeking peaks with the price peaks. Starting from these preliminary evidences, the primary need was to structure a questionnaire-design, at least partially, avoiding personal influences (Bruner & Goodman, 1947), favoring neutral answers by the respondents involved voluntarily. The main features and details of the sample are following represented: (a) population of students (probably more in line with innovation); (b) quite balanced gender: No.38 males and No.29 females; Tot. No. 67.; (c) average age considered it has been fixed between 18 and 29 years (more incline to innovation). Basing the analysis on these sample features, it is necessary to consider that the observation of information-seeking behavior would be a privileged way to analyze the presence of activism in what can be defined: a social learning phenomenon, aimed to accept or reject innovations in social environments. This kind of multi-method approach based both on netnography and field-analysis survey-driven, would be propaedeutic in defining an emergent phenomenon like BTC-BC as a social learning one and also useful to trace the lines of the probable reluctance or acceptance related to the individual or socially-organized information-seeking activity.

Justification of the Research Architecture

Social life at whole should be considered beyond the limited expression of social phenomena per se. Social paradigms are vast and wide-ranged, involving a great variety of existing and sometimes blurred in the outlines. This type of phenomena, as suggested by Shatzki (2016), should be intended as difficult to understand because often not directly accessible by observation. They need a strong participation and the provision of insiders. BTC-BC phenomenon, due to its innovatory profile and features, affecting globally a great part of population, should be taken in consideration under the lens of social paradigm transposed on the virtual environment. So, double-face repercussions can occur, because BTC-BC is a phenomenon emerged on the Internet, started from the reality, but with a parallel succession of events and consequences both in the real and virtual world. Hence natural field (intended as the environment in which the phenomenon emerged), not artificially-generated settings, as usually structured for the

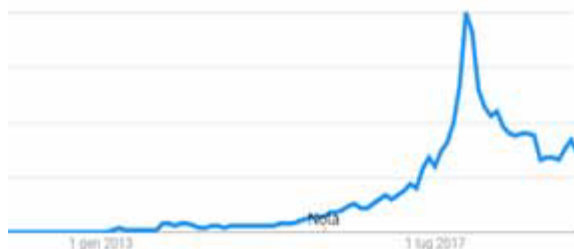
experiments or clinical interviews, should be considered as a primary source for collecting data and observe emergent phenomena, liable of further authors' hermeneutical efforts. By a netnographical approach and field analysis, social phenomena of complex solution and in rapid growth would be more understandable. According to what aforementioned, Hammersley and Atkinson (1983) suggest that social researchers, considered their observing role and their subsequent hermeneutic efforts, should adopt behaviors of respect toward the reality and the social environment they study. Given the expressed reasons, the authors decided, respecting ethical and deontological perspective of action, to conduct the preliminary research observing the virtual reality by the aid of Google trends tool. In that way it has been possible to develop an ethnographic web-mediated observational method. According to that paradigm of action, it has been possible to structure a not-pervasive observation of the environment in which emerged and continue evolving the BTC-BC phenomenon. The objective aimed is to observe the daily activity on the Internet by the observation and analysis of searching criteria able to formalize their implications and connections in the real world. The motives that led the authors to pursue this objective, should be connected to the choice of a multimethod approach, combining netnography and survey-based field analysis for subsequent structuring of validity of data and their objectivity thanks to a mirror-system. Considering what affirmed by Collins (1981), active agents in several social environments and sociological extensions, would explain social architectures in terms of micro-situational dimensions. Macro-aggregating these micro-dimensions, could provide a structured social-environment, shaping the lines of a "context". According to this paradigm of action in observational research, the authors, thanks to the mixed-method perspective, can show micro-structures of small phenomena (as the presence of activism in information-seeking), observing a structured macro-dimensions shaped on micro-aggregates by the useful aid of a digital tool able to transpose a mirrored social-reality subsequently verified by field-analysis survey-based. In this way, researchers can observe a structured and not fragmented social context. Hine (1994) suggests that several authors tend to focus the attention on the ethnographical role and the ethnographer as agent in reporting daily events, detailing everything considered useful. Other researchers tend to emphasize the ability to consider the settings in which operate. Features identified as common should be the involvement of the ethnographer in the environment observed, considering a face to face approach aimed to comprehend traditions, routines, practices and behaviors. Conventionally an ethnographer: *"participates, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what said, asking questions; in fact, collecting whatever data are available to throw light on the issues with which he or she is concerned"* (Hammersley & Atkinson, 1983). This type of approach is shaped by conventional paradigms. Contrarily, nowadays it would be possible to re-shape ethnography under the lens of technological aid and the role emergent technologies could have in ethnographical research (Hine, 1994). According to what affirmed by Hine (1994), the methodological view implemented by the authors, should be defined as unconventional. In fact, the observational paradigm is based on virtual field and its verification is delegated to an analysis on the field. Approaching this mixed-method, the authors would have a clear frame of the environment in which operate, intending the virtual field as a mirror and just an extension of a transposed reality. A specific clarification should be done on the term "virtual" that can mislead in considering "virtual communities" less real than the physical ones. Kozinets (2002) provides a clarification on that question, pointing out that social-aggregations in the "virtual" environment, should be identified in the same way of their homologues in the tangible reality, noting real existence for participants to virtual social-groups, able to produce effects and repercussions, as well as implications, by their "virtual" behaviors in the mirror reality. Netnographical approaches, or ethnographical methods Internet-based, should be identified as qualitative approached to research paradigms, that implement ethnography and techniques

ad-hoc structured for the paradigm by the aid of virtual-mediation. Kozinets (2002) recognizes that the approaches of research based on ethnography should be considered as expensive in terms of time and resources. With the aim to face the problems evidenced, the authors implemented, as aforementioned, an unconventional method based on ethnography Internet-mediated. In this way, the expensive approach related to the observational behaviors of the activity implemented in information-seeking in a direct manner, overcomes its related criticalities by filtering the analysis by the tracing-tool provided by Google Trends. This kind of approach has no solidity bias thanks to the inclusive mixed-method implemented. The condition created made possible to hermeneutically consider behaviors (i.e. information-seeking) and their probable motives behind the action. Just these motives should be identified as the main limitations of the research and should be object of further investigations tracing more specific analysis and methods. Is widely recognized that individuals and groups are used to access the Internet in their daily life with the objective to satisfy personal or institutional necessities related to knowledge-creation by seeking for information. Following that consideration, it would seem clear the motives behind the methodological choice and research design.

Emerging Findings of the Netnographical Analysis

Innovation adoption and reticence shows a great interest in literary discussion, considering several approached and dimensions (Davis, 1993; Legris, Ingham & Collette, 2003; Zaltman, Duncan & Holbeck, 1973; Davis, 1989; Mahajan, Muller & Bass, 1990). ICTs could be considered as innovative tools for the potential end-users. It is well known in information technology literature that individual perceptions should be considered as main features influencing acceptance and reluctance sentiments toward innovations (Moore & Benbasat, 1991; Rogers, 1995). The paradigm of voluntariness plays a crucial role in adoption of new technologies and their subsequent acceptance (Agarwal & Prasad, 1997). Enhancing the assumptions mentioned before, the Figure 1 would show BTC's trend from the year 2013 (in USD) to September 2022, structuring the scale of observation on time frames of 5 months (Figure 3), pointing the maximum peak ever in October 2021 (61,374.28 USD). This graph would be useful in explaining the fluctuations of BTC price, evidencing a great growth in the last year. For long time since the BTC emergence (2008), the price trend evidenced no particular peaks, except for a minimal ferment among 2013 and 2014. Among 2008 and 2012, the price was still almost at 0, gradually growing to touch the first peaks on thousand Dollars in the middle of 2013 with changes in value of even 50% down until the second half of 2014. From this point the trend has been constant until 2016. At the beginning of 2016 the value had a gradual rise, increasing in the second half of the year amounting to \$ 3,000. At the end of 2016 and beginning of 2017 the value was the half of the previously reported and then back up

Figure 3. BTC Price Trend in US Dollar
Source: STATISTA (accessed: 05-09-2022)



again, triggering a succession of multiple appreciations and depreciation, reaching the higher point to approximately \$ 13,000 at the end of December 2017, suddenly breaking down in a week. The maximum appreciation of the BTC value has been demonstrated from November 2020 and December 2021, reaching extraordinary peaks (about 60 thousand Dollars).

The overlapping peaks are made visible comparing the same periods of observation in terms of BTC price and the online behaviors in seeking for information strictly connected to BTC-BC arguments. By the aid of Google trends analytics tool, it has been possible to overlap information-seeking behaviors on the Google Searching engine and BTC price trends (form: STATISTA). The following table (Table 1) has been adequately structured by the authors with the aim to compare searching criteria and information-seeking behavioral activity related to the keywords: “*bitcoin*”, “*blockchain*”, “*bitcoin wikipedia*” and “*blockchain wikipedia*”. In this direction the same periods observed that considers BTC prices maximum peaks, would reflect the behaviors in acquiring information and knowledge (considering the additional searching criteria of “Wikipedia” to bitcoin and blockchain keywords). Preliminarily, the authors can suggest a plausible hermeneutical interpretation of the BTC-BC phenomenon under the lens of Bandura’s frame (1971). In this sense, BTC-BC phenomenon should be considered a social learning phenomena for the part in which it would be possible to consider a great overlapping and similarities in peaks relating the interest in searching for information and the peaks of prices. Also considering the periods analyzed, it would be possible to verify that precisely in the initial period of growth of the BTC prices, which attracted interest, in parallel people searched online for both the term “*Bitcoin*” and “*Blockchain*” per se, and the same terms in addition to the “*Wikipedia*” criterion (considering a voluntary nature in knowing and acquiring information about the emergent theme). According to plausible predictions, the second and third peaks in BTC prices, were followed by an increase in searches related to the term, but not to the demand for knowledge (absence of “*Wikipedia*” criterion) (already acquired by the interested parties in the first periods of rise). This would demonstrate what recognized in the literature, that the search for information in the construction of generalized social learning phenomena, would occur immediately with the emergence of the innovation.

The BTC-BC information-seeking activities, analyzed through a wide-range area, shows similar trends and also, in several cases, antecedent to the highest price peaks. The periods connected with these levels, would be able to reveal, at theoretical plan, the probable nexus with the voluntariness in information-seeking that could empower the assumption of social learning. Concerning the terms used as keywords, the authors decided to consider both BTC and BC because they are intrinsically linked, as affirmed by Caetano (2015). The analysis processed by the netnographical approach conduces to the confirmation of the presence of existing similarities among the convergent interests in seeking for information activity related to the highest peaks in BTC price graphically represented (Table 1). Contrarily, the emerging ferment in searching for information around the theme of BC started in the year 2015. That would attest that an emerging point of a great level in seeking for information activity on the BC area of interest, should be represented considering several years before the spread of media influencing factors. That would be intended as anticipatory of the social learning paradigm. Considering also the fact that subsequently the interest in searching information to acquire knowledge seems to be lower (see Table 1 “Blockchain wikipedia” trend 2015-2022) than the one reported by the BTC trend, reflecting an acquired expertise deriving from previous information-seeking activities, after oriented by the aim to make profits and the opportunity created by the BTC increasing prices. These are supposing and plausibly interpretations based on inductive considerations aimed to shape general view by single cases, evidenced through the structured analysis. It is crucial to say that the approach used by the authors considers only the keywords selected by the users as searching-criteria creating inputs on the World Wide Web for searching-engines. In this sense, the authors cannot access the qualitative data and real motives of the searching criteria

Table 1. Blockchain and Bitcoin Information-seeking Behaviors – Trends (Source: Google Trends (accessed: 25-06-2019))

“Blockchain” trend (2011-2019).	“Blockchain wikipedia” trend (2011-2019)
“Bitcoin” trend (2011-2019)	“Bitcoin wikipedia” trend (2011-2019)
“Bitcoin” trend (2015-2022)	“Bitcoin wikipedia” trend (2015-2022)
“Blockchain” trend (2015-2022)	“Blockchain wikipedia” trend (2015-2022)

Source: authors' elaboration from Google Trends

inherent the information-seeking activity, nor the presence of external or internal influencing factors (i.e. Internal: self-interest and motivation; External: herd-behavior, indirect-persuasion, mass-media WOM-interpretation, public-anxiety– see Figure 1). Avoided these variables, the authors would be able to shape the borders of intentions (presumably identified) on the internal side, the need of knowledge and externally, the creation of informed contexts.

Emerging Findings of the Field Analysis

The field analysis ad hoc structured by the authors, is practically considered as functional to the holistic perspective of the multimethod approach, reflecting by a mirror system, a transposed reality linked to a web-based seeking for information activity. The design of the questionnaire is architectural oriented to the investigation of the phenomenon object of the study from the users' side as object of repercussions in reality related to operational activities and phenomena occurring on the web. This mirroring-system is fruit of an accurate consideration aimed to validate behavioral consistencies in the virtual reality. The field analysis aimed to consider a mirroring approach in observing behaviors among web-based ecosystems and reality-based environments. That would reflect the plausible connections existing in accordance with activism in voluntarily seeking for information, the BTC-BC paradigm inherent a perspective of social-learning phenomenon and the knowledge-creation process on emerging themes. This frame would be instrumental to the verification of the probable rejection/acceptance propensity toward new tools by a more conscious decision-making process based on humans' information processing systems and inherent rational perspective.

On the base of these assumptions, the authors decided to structure the questionnaire avoiding individual influencing agents (Bruner & Goodman, 1947), remaining neutral toward respondents voluntarily involved for this survey. The consistency of the sample involved considers a population of No. 38 males and No. 29 females, sampled by precise features, considering an average age fixed among 18 and 29 years old identified as the category of students (tot. No. 67). In particular, the sample is structured by No. 21 students of economics and No. 46 students in other disciplines. The choice has been considered valid, albeit a small sample, because the impacting factors of the innovation would affect more heavily this range of population (more easily receptive) directly transported by their academic courses and the age. Subsequently the whole workers in the field and the academics would be great samples for further investigations. By the approach considered it has been fruitful to investigate on the risk propensity showed by the sample (as influencing factor of innovation acceptance). The risk-propensity evidenced seems to be low, considering the 4,48% with high-propensity and the 64,18% with scarce risk-oriented attitude, the remaining part shows medium levels of risk-propensity (31,34%). Other useful data are the ones related to the levels of knowledge emerged by the survey. The results are following reported, considering a great majority with medium knowledge on the theme object of the analysis: 4,48% high levels of knowledge, 32,84% scarce level of knowledge, 62,69% medium levels of knowledge. These data seem to be extremely crucial in the sampling activity because the population could be affected by the average age, the risk-attitude and propensity, the gender, the knowledge and last but not the least the educational background. These factors elicit perceptive distortions (Rainero & Modarelli, 2019; Deshpande, 1997). Crucial data extracted, concern the individual attitudes of information-seeking activities toward emerging innovative phenomenon. The survey would make more understandable the behavior that people take in place regarding the information-seeking activity, mirroring verifying the assumptions provided by the netnographical investigation operated on the web and concerning the previous step of the study. In fact, the almost all of the sample (92,54%) shows particular traits in seeking for information (if interested and excited by the curiosity and ensured by source reliability), declaring a preference of “*internet or different channels*” able to provide huge amount of information that “*once interconnected would create a clear*

frame of the argument”, structuring a paradigm that follows the these steps: information-seeking → information-processing → knowledge-creation. The involved sample, by a multiple-choice frame, also declares that the preferred way by attempt to create knowledge though the information-seeking activity (in this case about BTC-BC theme) would be intended considering Internet and word of mouth (WOM) as the main channels. The following table (Table 2) expresses the frequency data extrapolated by the survey (in percentage) related to the channel accessed by users concerning BTC-BC theme.

Table 2. Preferred channels in acquiring knowledge on BTC-BC

Channel	(%)	Frequency
Internet	82,09%	55
Newspaper - Journal	16,42%	11
Radio	1,49%	1
TV	37,31%	25
WOM	58,21%	39

Source: *our elaboration*

Meho and Haas (2003) affirms that about the major part (88%) of their involved sample prefer to access Internet-based resources concerning their seeking for information activity. The survey as structured by the authors would permit to verify the data provided by Meho and Haas (2003) on the preferred channel for information-seeking activity on emerging themes (Table 3).

Table 3. Preferred channels in general seeking for information activity about emerging themes

Channel	(%)	Frequency
Internet	98,51%	66
Newspaper - Journal	5,97%	4
Radio	2,99%	2
TV	7,46%	5
WOM	4,48%	3

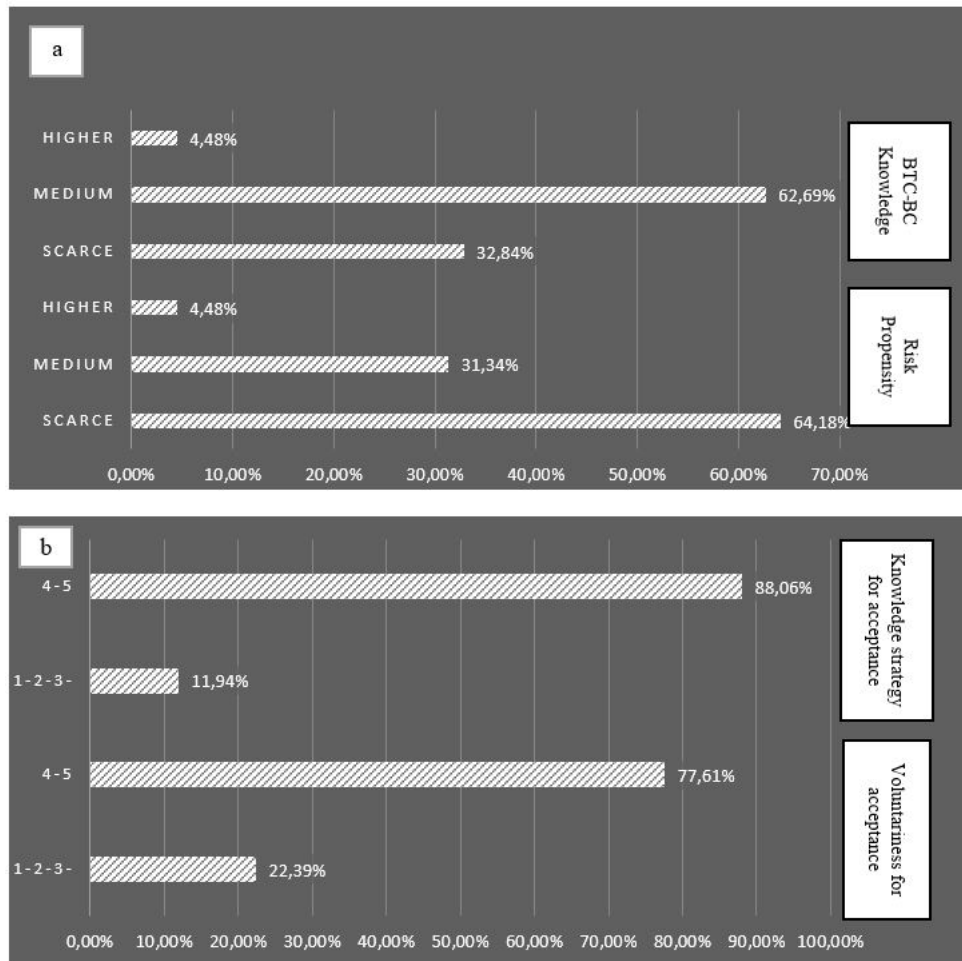
Source: *our elaboration*

As influencing factors, the risk-propensity and pre-existent knowledge about BTC-BC phenomenon, would complete the frame of data previously reported. In accordance to what expressed, the Figure 4(a) graphically represents the dimensions aforementioned. The Figure 4(b) graphically reports the emerging results extracted thanks to the survey-based field analysis on the voluntariness as antecedent of innovation acceptance and strategical perspective related to knowledge. The answers have been graduated by the aid of a readapted Likert scale. With the aim of ensuring and facilitating readability and significance, the data have been aggregated in the following way: the grades 1-2-3 have been considered with the mean of scarce level of accordance (1), lower (2) and indifferent (3); the grades 4-5 reflects higher level of accordance. The results coded in the Figure 4(b) as “*knowledge strategy for acceptance*” should be considered as symptomatic in relation to probable managerial implications concerning the structuring

of accessible informed environment knowledge-based toward innovative tools (i.e. explaining characteristics, potentialities and risks). A great part of the involved sample (88,06%) would show a propensity toward innovation acceptance when information related to characteristics, potentialities and risks of the innovative tool are made available institutionally. The results coded in Figure 4(b) with the title “*voluntariness for acceptance*”, explains the active and voluntary behavior toward reluctance/acceptance of innovative tools by seeking for information. The perspective related to the possibility to create their own knowledge by seeking for information would reflect in the 77,61% of the involved sample a higher propensity toward voluntary acceptance of innovative tools.

Figure 4. Risk propensity, knowledge on BTC-BC, voluntariness as antecedent of innovation acceptance and knowledge strategy

Source: authors' elaboration



FUTURE RESEARCH DIRECTIONS

Starting from the limits affecting this research, explicitly concerning the size of the sample and the exploratory view that characterizes its design, would permit to consider these conditions as influencing

factors. On the contrary, to balance the risks of ambiguity and provide a reproducibility of the protocol, the authors structured an ad hoc mirroring system based on a multimethod approach. In fact, the ethnographical investigation, would be able to interpret behaviors (in seeking for information) and to abstract the possible types of inherent motives. In addition, these probable motives (i.e. possible news titles influence, WOM, mass media influence etc. on searching activities) could trace the limits of the research and should be subsequently investigated by a more in depth investigations. Further limitations could be considered concerning the necessity and motivations moving individuals or groups toward seeking for information. Plausible influence factors could be represented by the mass media intake (Giles & Shaw, 2009; Jennings & Dolf, 2002), the inherent indirect-persuasion (McQuarrie & Phillips, 2005) or Word of Mouth (McQuail, 1979; Kozinets, de Vlack, Wojnicki & Wilner, 2010), the generated public anxiety (Gadarian & Albertson, 2014; Tausczik, Faasse, Pennebaker & Petrie, 2011), the herding behavior (Bikhchandani & Sharma, 2001; Lee & Lee, 2012) and in the perspective of this research, concerning bitcoin, the aim of acquiring adequate knowledge by seeking for information on the theme, moved by the self-interest aimed by the perspective of easier profit. More in depth research based on these exploratory results, would tend to balance these limitations, probably by investigating media influence or providing a sentiment analysis based on newspaper/journals articles. A perceptive analysis could help to understand the real knowledge that individuals demonstrate on the theme. In the authors' view and according to the paradigm of innovation acceptance, that approach would be fruitful and instrumental to the acceptance of innovation by conscious-based choice knowledge-driven (Cinar, Trott & Simms, 2019). In parallel with its probable existing limitations, the study would show great perspectives on the BTC-BC phenomenon, structuring an inductive frame, based on a case study, aimed to generalize assumptions concerning innovation reluctance/acceptance. The relation existing at theoretical level among knowledge-creation and voluntary activity may affect positively individuals and groups' behaviors in consciously make decisions toward innovation reluctance/acceptance. Deriving practical implications would occur, concerning the higher hierarchical positions at institutional level, reshaping also the marketers' role, decision-makers and policy ones, public entities and private companies, with the aim of structuring knowledge-based environments and informed contexts. In charge of these subjects falls the burden and the responsibility to prepare individuals and groups, in the place in which they operate, to welcome and applicate innovative tools, making available objective, impartial and comprehensive information on potentials, criticalities, perspectives and intrinsic risks concerning the progressive emergence of "disruptive" innovations in social life and work-environments.

CONCLUSION

Concerning to the perspective of structuring knowledge-driven environments as exogenous facility and implication, so the active attitude in seeking for information (individual perspective), would tend to shape social learning paradigm as hermeneutic lens. In this sense, the object of individuals or groups' orientation, would tend to shape informative frames on particular features and criticalities related to the innovative tool and its potential application (i.e. BTC-BC phenomenon). As confirmed by Kuhlthau (1991), the approach based on a multimethod system and a mirroring perspective would assume a crucial role, permitting significant information extrapolation. Individually and from a group perspective, voluntariness and active behaviors in seeking for information aimed at acquiring knowledge could be considered preminent conditions in describe reticence/acceptance propensity in practical operational context of innovation applications. The study, so structured, permits to shape the borders of BTC-BC

phenomenon under the theoretical lens and the hermeneutic approach of social learning, described by Bandura (1971). In this sense, the mirroring system implemented with the objective to verify parallelism and similarities existing among the virtual and the tangible reality in which online phenomena produce their visible effects, investigates and allows to extract crucial clues on the presence of voluntary behaviors actively promoted by individuals and groups in seeking for information activity related to unknown and emerging themes. A preliminary verification has been structured by the aid of netnographical methods, instrumentally flanked by the aforementioned mirror system, able to enhance the truthfulness of data extrapolated overlapping netnographical observations and the ones operated by the analysis on the field. According to the results, the mirroring system would reflect a verified overlap. The verification of existence in terms of voluntariness paradigms by the multi-method approach would structure the pillars of potential acceptance toward innovative tools and emerging (disruptive) technologies. This frame would open perspectives oriented to managerial implications related to knowledge-strategies and consciousness in decision-making processes.

The necessity to shape the lines of an informed context knowledge-based, would favor the emergence of managerial paradigms of developments aimed to enhance the aforementioned knowledge-based strategies, presumably providing a reduction in the level of reticence and sentiments of refuse toward change and innovative tools. As mentioned before, the frame of social learning oriented by the seeking for information activity, should be considered valid thanks to the added interpretative qualitative criterion of “wikipedia” as criterion inherent the aim to learn something about new themes. This added criterion should evidence, at least partially, presumable internal perspectives of the internal motives behind the searching for information activity, in parallel with the single criterion “bitcoin”/“blockchain” and the price trend of BTC, would make possible to shape the borders of a phenomenon based on social learning. According to the fact that the interest in searching information related to the BC theme is dated before the highest peaks of BTC price, and the subsequent price peaks follow the peaks in searching activity, would confirm a social-learning perspective. Furthermore, the divergence among trends on BC theme considering “Wikipedia” criterion and the BTC price peaks, in the following phases of increasing of value, would demonstrate an expertise acquired and a lower necessity of acquiring knowledge after several years. In this sense, the social-learning paradigm and the BTC-BC phenomenon would be verified. Following investigations could tend to statistically consider an expressed correlation between the events. The study, considering the activism in seeking for information and the attempt to acquire knowledge on innovative emergent themes, in strict relationship with conscious decision-making reached by the human information-processing activity (Neisser, 2014), would consider voluntariness (actively demonstrated) as an antecedent of innovation acceptance. In that perspective, the BTC-BC phenomenon should be intended into the paradigm of social-learning, able to produce modeling interactive environments (Bandura, 1971) of information absorption and self-knowledge-creation related to emerging virtual factors impacting living reality.

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KEY TERMS AND DEFINITIONS

BC: Blockchain.

BTC: Bitcoin.

DT: Digital transformation.

IT: Information technology.