

Lockdown and Sustainability: An Effective Model of Information and Communication Technology

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Abstract

Covid-19, a corona virus, has maintained its momentum in spreading among communities. In this context of social crisis, this study seeks to identify the reasons for the partial failure to fulfill the intended goal of lockdown, and to formulate an inclusive behavioral model reflecting comprehensive human behavior and social psychology. In order to answer the research questions, this study has conducted extensive interviews among individuals who were targets of the lockdown system. From this exploratory and qualitative investigation, researchers have recognized four paradigms as the key to understanding human behavior and social psychology in violating lockdown as a social isolation system during this period of crisis. The identified

parameters depicting social behavior are: Derogation and Argument (SDA), Tangible Need and Deficiency (TND), Intangible Desire and Expectancy (IDE), and Evaluation of Benefit and Loss (UBL). Finally, as a comprehensive guideline, a grounded theory of the social behavior ‘paradigm for lockdown violation (PLV)’ is explored as the reason for the violation of the social system.

Keywords: Lockdown, Social Isolation, Social Crisis, Sustainability, Social Psychology, Human Behavior

1. Introduction

The year 2020, from its inception, has made the word ‘Lockdown’ a familiar term and universal concept. From the start of January, the pandemic Covid-19 has had a devastating effect worldwide. It has accelerated the use of the word ‘lockdown’ so profoundly that it warrants research as to whether any word in recent centuries has been used more often than this life-altering word is presently articulated in common, scientific and governmental parlance.

Research studies in all areas typically identify whether the sample effect is categorized as respondents from developed countries and/or developing countries (Weinstein, 1994). Although, for many studies, standardization strongly recommends ignoring country differences, generally, for research either qualitative or quantitative, country differences, broadly divided as developed and developing countries, are considered substantially (Porter, 1998; Shareef *et al.*, 2013). In marketing, market segmentation is also a common parameter which also necessitates consideration of demographical characteristics and cultural differences based on education, race, class etc., (Kumar *et al.*, 2011). However, research on Covid-19 is a classic example where any market segmentation can be realistically ignored based on either the global economy (developed and developing countries) or demographic factors inside a country.

People and/or information are restricted under lockdown to enter into or exit from a particular area or building or room or from any computing device (Schept, 2013; Wang *et al.*, 2020). So, lockdown is a preemptive action where all people (or information) are confined in a certain location, area, compound, building, and/or room partially or completely under a regulation assigned by legal authority for a particular time either definite or indefinite. Therefore, under the protocol of lockdown, a specific room, building, compound, community, area, city, state, and/or country is kept closed, and nobody inside can exit and nobody from outside can enter without proper permission. This refrainment can be partially or completely enforced (Lau *et al.*, 2020). During this period, all people are prohibited from leaving or entering other than the law enforcing authority. Lockdown can be one of several types: emergency lockdown for physical security; and preventive lockdown for protection from possible physical or mental damage. Lockdown can be partial where people are permitted to come out from the confinement for a while and an outsider can enter with permission (Wang & Wu, 2018; Zhong *et al.*, 2020). It can be complete lockdown where nobody inside can exit and nobody from outside can enter in

that confined place other than special permission from the law enforcing authority for emergency or special needs. Lockdown can be fully restricted under which entrance and exit is completely prohibited under any circumstances.

Under the present scenario of Covid-19, lockdown, either *partial*, *complete*, or *fully restricted*, can be defined as a preemptive action plan designed with certain protocols to restrict transmission of the virus from outside or from inside by closing a certain building and/or a social community (designated by location, area, city, state, country) and all human beings and their pets are to stay within that boundary (Schept, 2013; Wang *et al.*, 2020). They are not permitted to come out from that restricted place to other communities and people from other communities are also prohibited from entering that specific location without the permission of the law enforcing authority. It is both an emergency and preventive lockdown implemented by the government at any level.

The present scenario, realistic outcomes, and its implied significance needs to be examined from the distinct perspective of various countries. Under this context, the consequences of lockdown can be addressed, analyzed, and comprehended in several settings. For instance, in the USA, different states have imposed local lockdowns regulated by the relevant state authorities. China, the originator of this pandemic (initially it was considered as an epidemic) which was suffering almost alone in the first month of 2020, placed a lockdown in Wuhan only, the epicenter of the coronavirus outbreak, in a bid to prevent any further spread of the disease where the population is almost 11 million (The Guardian, 2020; Zhong *et al.*, 2020). Japan was reluctant to put any countrywide lockdown in place initially in order to maintain the country's economy. In Italy, due to the severe expansion of the Covid-19 infection, a nationwide lockdown was put in place to address the devastating conditions, although restrictions were frequently not observed by many citizens. The Italian prime minister has eased some of its stringent nationwide lockdown restrictions in May (Ellyatt, 2020). France has put a nationwide lockdown in place and their president is expecting to relax lockdown while maintaining partial restrictions (Ellyatt, 2020). Similarly, a complete nationwide lockdown was imposed in Spain and the Republic of Ireland.

These measures became the new normal for citizens worldwide, in both developed and developing countries. Now the obvious question and of paramount concern is the effectiveness of the regulatory lockdown system imposed by almost all the governments in the world. From the conceptual definition, lockdown is intended to keep people of a particular location isolated from other communities (Figueiredo *et al.*, 2020). So, it is focused on separating people. Since lockdown was often imposed, monitored, and regulated by the government authorities in extremely strict fashion without allowing citizens any scope to exercise their citizenship rights, in several countries like China, North Korea and, to some extent South Korea, lockdown worked effectively (The Guardian, 2020). However, due to the scope of so-called democratic rights for free movement, flexible government policy, the relaxed performance of law enforcing authorities, and/or governments' hidden agenda to allow economic activities to maintain

economic growth, in several countries all over the world, lockdown, whether partial, complete or fully restricted, did not work to meet expectations and protect community transmission of the virus (Lau *et al.*, 2020; Wang & Wu, 2018; Zhong *et al.*, 2020). Fundamentally, in some countries, lockdown has failed to achieve its desired goal due to the unwillingness of many people to strictly follow government regulations regarding lockdown.

Now, if the public do not want or are not able to abide by rules of separation, and frequently come out from their closed loop and interact with people in other locations, the intended purpose of lockdown cannot be effective. Community spreading will not be controlled and ultimately lockdown will fail. According to the world news media, for instance the BBC, CNN, CBC, Al Jazeera, Reuter, AFP etc., it is obvious that the effectiveness of lockdown gradually reduced as many people from various communities did not perceive it as necessary to be locked down for days (Lau *et al.*, 2020; Wang *et al.*, 2020). They simply ignored or underestimated the implied significance of separation imposed by lockdown and broke the physical confinement of home (Wang *et al.*, 2020; Wang & Wu, 2018).

For the sustainability of any society, i.e., for the simplest form of existence, social members with standard social norms depicting a notion of civilization should be alive. The present lockdown, worldwide, is extending and expanding only to ensure the simplest existence of civilization; nevertheless, it must confirm and should not preclude the human urge of social capital, an inherent and eternal urge of community development (Bunker, 2020; Luciano, 2020; Venkatesh, 2020). Heuristically, on one side of the coin, it is needed to place and ensure lockdown for sustainability (Kumar & Managi, 2020; Nakamura & Managi, 2020; Yoo & Managi, 2020). On the other side of the coin, illustrating human urge, appeal, and prevalent nature, the autonomous trend of willful mixing in the form of community development cannot be denied (Dwivedi *et al.*, 2020; Katafuchi *et al.*, 2020; Kurita & Managi, 2020). Ignoring the second side of the coin, lockdown cannot be successful or bring the desired goal which all the governments are hoping for their citizens. However, presently, in all spheres of the world, lockdown has limited success. Revealing the underlying reasons of apparent failure of lockdown to ensure the desired target is extremely important for the sustainability of civilization, and, above all, human life. Therefore, in this present scenario, this research has a twofold objective:

- Addressing the fundamental purpose of lockdown and identifying the reasons for the partial failure to fulfill the desired target of lockdown.
- Now based on the answer of the first objective, this research has set its second objective to be the formulation of an inclusive behavioral model reflecting comprehensive human psychology in the context of any social crisis.

It is optimistically expected that this research will contribute extensively to the literature of psychology and public administration. It can also help to predict human behavior during any period of crisis similar to the pandemic of Covid-19. It should also have an enormous impact on

designing a sustainable society approach to abiding by government rules and regulations during any period of emergency.

The next section of this study reviews the literature on social psychology and human behavior and sustainability. Then a theoretical framework is developed. The following section proposes the research design. Subsequently, the results and discussions of this study will be presented. Then the theoretical and managerial implications of this study are explained in the following sections along with the limitations of this study and future research directions. Finally, a conclusion is outlined.

2. Literature review: Introduction

According to the Director General of the World Health Organization (WHO) outlining the lockdown protocol, “these measures are the best way to suppress and stop transmission, so that when restrictions are lifted, the coronavirus doesn’t resurge,”(WHO, 2020). The Director General of WHO further warned countries that, “lifting restrictions too quickly could lead to a deadly resurgence” (WHO, 2020). Regarded as a vital area of research, this study addresses the WHO’s guidelines that a deadly spreading and community infection can be only managed and controlled if people maintain the strong regulation of lockdown. Examining recent results either from developed or from developing countries, people are breaking the notion of lockdown by leaving their confined homes, mixing with community, and maintaining socialization. Why is this happening? This is a critical issue for the existence of society, for countries and the whole world. It is logical to underpin and analyze this issue from two perspectives: externally, from the conceptual paradigm of sustainability and, internally, from the psychological theory of human beings.

2.1. Sustainability

First, the theoretical dogma of sustainability is examined. Several researchers have explained that any system will sustain itself if it can fulfill people’s certain intrinsic and extrinsic motivation (Lozano, 2008; Robinson & Tinker, 1998; Rosner, 1995) for that system. Researchers from multidisciplinary fields (Doppelt, 2003; Lozano, 2008) have agreed that people perceive any system and its development favorably if it has the ability to fulfill three basic requirements, such as social, economic and environmental aspects (Senge, 1999). Theorizing the socio-economic paradigm with the contextual environment dynamic and the inter-related relationship of economy, social life and environment is the powerful issue for sustainable development (Archibugi *et al.*, 2013; Dresner, 2002; Lozano, 2008; Montabon & Pagell, 2016; Rey-Martí *et al.*, 2016; Ribeiro-Soriano & Salvador, 2016; Roseland, 2000). That means, if any system can meet people’s requirements of environmental, economic and social deficiencies, it is more likely to be sustainable (Dresner, 2002; Rees, 2002; Robinson & Tinker, 1998). Therefore, it can be postulated, with the prerequisite conditions, that, for the sustainability of any society, it should maintain the standard of social norms and human equality with the standardization of

civilization, and it is rooted on the pillar of three fundamental aspects: social dimension, environment dimension, and economic dimension (Cairns, 2004; Kirkby, 1995; Lozano, 2008; Montabon & Pagell, 2016; Roseland, 2000). Pragmatically, highlighting the social appeal for existence keeping equity, it is needed to establish and warrant a social system which can survive, exist, and move forward with prevailing norms and standards (Diesendorf, 2000; Langer & Schoon, 2003).

2.2. *Human Behavior Theory*

At this stage, it is necessary to address the psychological behavior of human beings. For predicting human behavior, one famous and popular psychological domain is the theory of planned behavior (Ajzen, 1991). Focusing on the root of this theory, human behavior is examined through the deterministic influence of their attitudes (self-developed perception/feelings), subjective norms (approval of referent group), and perceived behavior control (external catalyst to facilitate or hinder performance of the behavior). Shedding light on the conceptual significance of this behavioral theory, people will abide by the regulation of lockdown (to be confined in a restricted area and separated from community) if they have certain internal beliefs which may positively pursue their attitude to execute the central theme of lockdown. Also, they must be influenced by their associates (reference group) to maintain confinement in their residential location and isolation from all personal, social, economic, and community-based activities (Pachidis *et al.*, 2019). Following the idea of lockdown also depends on several external factors (perceived behavioral control), for instance, the possibility of punishment if it is not strictly adhered to, the scope of getting rewarded if it is maintained, and the tangible possibility of sufferings by transmission of the virus if the lockdown is broken. On the contrary, perceived behavioral control may have a negative impact (wishing to break the system from isolation) if it is substantially pressurized by some negative factors, such as losing a job, missing economic opportunities, and attraction for social interactions (although, in this scenario it is a negative factor) (Kaburlasos & Vrochidou, 2019) etc.

Analyzing the balance theory (Heider, 1958), it is well recognized that human behavior is greatly influenced by celebrity endorsement. It means, if someone likes a celebrity, that person is potentially disposed to wish to follow that celebrity's behavior. This liking can be extended by developing social networks which finally can develop a group behavior. The dangerous side of human psychology which is unveiled by this theory is that human minds might oppose any systems and enthusiastically strive to disobey any regulations if they perceive the administrator (celebrity) negatively and unfavorably. That means, reflecting the central theme of this psychological theory, the human mind is persuasive to any regulation either favorably or unfavorably depending on the evaluation of the source derogation (Alvaro & Crano, 1996; Wood, 2000).

Before completing a brief, summative, and integrative view of human psychology, focused on the uneven path of human decisions, an economics concept named prospect theory (Kahneman &

Tversky, 1979) should be analyzed and contrasted. This theory was developed by Daniel Kahneman and Amos Tversky in 1979 to challenge and necessitate the modification of expected utility theory (Neumann & Morgenstern, 1953). This prospect theory is focusing, contrasting, and integrating the conjoint effect of loss aversion and an asymmetric form of risk aversion (Tversky & Kahneman, 1992). Clearly the human mind uses its mental ability to diagnose a situation and relatively evaluate the possibility of potential losses and potential gains from the occurrence of that event. Consequently, and heuristically, people tend to choose their final behavior based on the relative betterment from a specific situation by weighing potential gains and potential losses incurred.

3. Theoretical framework

Given the novel aspect of this study, this unprecedented new area lacks theoretical support to develop a definite theoretical underpinning to advance this study. However, from the previous analysis and illustration, some background paradigms of theoretical structure can be assumed:

- Since a community-based mass of people is closely associated with the process of lockdown, this isolation and refrainment from all kinds of community-based interaction should be examined considering overall human behavior — their cognitive and affective attitudes.
- During this lockdown period, people are closely confined in their specific residential locations. Therefore, they are continuously missing their social urge and emotions to share with others. Consequently, this issue has a strong social aspect.
- Rooted in financial deficiency, the economic dimension is an important factor when examining lockdown. Behavioral economists (Camerer, 1989; Cohen *et al.*, 1987; Tversky & Kahneman, 1992) have argued for many years that human behavior is closely intertwined with their financial requirements. Theorists working on organizational motivation (Donaldson, 1990; Dulaimi *et al.*, 2003) also agreed on the fact that economic deficiency can mould and aggravate human behavior in certain conditions.
- Human behavior in occupations, professional activities, urbanization and industrialization — i.e., nationwide all economic activities have a strong impact on environmental degradation. In recent years, environmental scientists have strong recommendations to save the climate by taking several measures which can ensure reduction in carbon emissions.
- Human psychology is a complex issue and it has multidimensional aspects, some of which have driving and pursuing effects, and several of which have inhibiting and controlling thrust (Bardecki, 1984; Bowonder & Linstone, 1987; Cohen *et al.*, 1987; Dwivedi *et al.*, 2016; Shareef *et al.*, 2020b). Combining, comprehending, and integrating all these effects, compound behavioral patterns can be speculated on and predicted.

Therefore, investigating the objectives of this exploratory study should be based and manifested on primary and generic areas of human behavior and decision-making patterns.

Integrating the central concept of the aforementioned psychological, behavioral, and economic decision-making theories and the human urge for social capital in the light of sustainability, and contrasting these with the present scenario of lockdown and human behavior, several driving parameters which can be used to develop a theoretical framework for predicting the behavioral response under this emergency event can be discovered (transmission of Covid-19) as follows:

1. It is an eternal human urge to gather in the community and continue socialization.
2. Pragmatically, appeal for social capital is an absolute feeling of social gains.
3. Permanency of any event should be looked at from the probable benefits of three dimensions: environmental, social, and economic.
4. The human mind explores gains from any events considering the isolated benefits derived from or for environment, society, and economy.
5. For sustainability, quality of environment, social benefits, and economic benefits must be fulfilled.
6. In any social conditions, human beings conform to the norm, if they hold a favorable attitude to the system.
7. Human behavior is not only an outcome of one's own feelings; it is also influenced by society's emotional pressure on them.
8. External factors also have a conjoined impact on controlling their final behavior
9. Images and derogations of reference members and arguments and counterarguments play a vital role in shaping the response of humans.
10. Human beings, to find comfort in their mind, always try to align their attitudes and behavior.
11. People give priority to the stress derived from the society and community.
12. People respect their desire if the situation is favorable.
13. If any situation is unbearable, people try to escape from the situation.
14. It is an inherent tendency of the human mind to evaluate the final and concurrent impact of both loss and gain relatively.
15. If the absolute benefit is greater than the probable occurrence of loss, people behave accordingly to grasp benefit.

4. Research design

This study sets out its twofold objectives: firstly, to analyze and discover the reasons for violating the lockdown system worldwide. Then, based on the identified reasons, contrasting these with generic human behavior by shedding light on social psychology and sustainability, the second objective is developing a grounded theory of disobedience within any social system, reflecting comprehensive and synergistic pictures of human behavior. To grasp the fundamental essence of the two objectives, as an extraordinary exploratory investigation having weak

literature support, the study has designed its methodology to conduct extensive qualitative study among the major stakeholders.

As the exploratory investigation was underpinned by the semi-structured theoretical framework (rather it should be regarded as the paradigms of the outline of theoretical framework), this study is fundamentally and primarily based on conducting several queries among the principal stakeholders through qualitative study. The design of this qualitative study is divided into two phases.

In the initial phase, the stakeholders of this study were identified to reach the objectives by getting appropriate answers. More specifically, in the first phase, the groups who have association and functions in the entire lockdown system as the implementers, executors, observers, and/or facilitators were recognized. Since the study and the consequent development of a theoretical base is primarily dependent on the response of the members who are closely involved in this mechanism of lockdown, identification and recognition of major stakeholders in this lockdown system is important. To reach this goal, the study has followed two distinct but connected procedures:

1. Observation of the scenario in several countries derived from the broadcasting of electronic media, searching in social media for interactions and opinions of different social members, and the reading of newspapers
2. Open discussion and brainstorming with potential social members having expertise on social incidents and human behavior in focus groups. Consequently, five university professors of a leading private university in Bangladesh, two from sociology departments, two from psychology departments, and one from organizational behavior (management department) were invited to a one-hour discussion.

The second phase of this study was conducted in Bangladesh where maintaining social isolation is a serious challenge. From the first phase, three broad categories of stakeholders were identified as per their role, responsibility, and function. These three categories are shown in the first column of Table 1. Now again under each category, different types of stakeholders are mentioned in the second column of Table1. All these stakeholders were selected as the sample. In the second phase, more detailed extensive interviews were conducted among the stakeholders identified in the first phase. From each group of stakeholders, several people were interviewed as mentioned in the third column of Table1. The interviews were not conducted based on any specific structured questionnaire. The respondents were given complete freedom to provide their perceptions about the reasons to violate lockdown and not to abide by social isolation. The interview time varied from twenty minutes to one hour. The number of respondents from each group was selected based on their importance, involvement, priority, role, and responsibility. Considering this, the following is the number from each group and their realistic involvement and importance shown in Table 1 (Total interviews conducted =76).

Table 1
Involvement of stakeholders in lockdown

Category	Stakeholder	Number of Respondent	Role and Priority
Lockdown Breaker	People uninfected by the virus Covid-19	30	They are violating the lockdown most frequently. Each time they might be infected by others
	Personally, uninfected but family member(s)/friend(s) infected by Covid-19	10	They are very vulnerable for community transmission since they might be in very close contact with someone already infected.
	Presently suffering from Covid-19(mild)	2	They are extremely sensitive and risky for community transmission
	Infected by Covid-19, but now recovered	2	They perceive themselves risk-free from two-way transmissions; however, it is still not proven. So, their socialization can be detrimental
Lockdown Implementer	Government administrator (Regulatory authority)	5	Focusing on all aspects of social, behavioral, and economic need, they prepare regulations and plan for lockdown and isolation. They have statistical data about human needs and behavior
	Law enforcing authority (Police and Army)	5	They are the field supervisors and implementers. They are in close contact with the violators of lockdown, talk to them, discuss, and even forcefully try to control and refrain them from socialization
	Local elected members	5	They are responsible to guide people, discuss with them about their problems, requirements, expectations, and plan, and implement social isolation in their respective community
Lockdown motivator	Physicians and other health service workers	5	They can understand and collect patients' view and way of infection and transmission.
	Relief distribution authorities (government and private— NGO)	10	They realistically realize the lockdown violators' view, need, and urgency. They know and understand the general public's expectation and deficiencies
	Professional psychologists/sociologists	2	They have theoretical knowledge to analyze, understand, and recommend for the public's intentions, motives, attitudes, and behavior

Shedding light on the nature, role, responsibility, and authority of the respondents who were interviewed, there are broadly three categories of primary stakeholders who are active and/or passive members of the lockdown system. *First category*, representing the general public, is the possible breaker and violators of the lockdown system (*lockdown breaker*) for any reasons

— logical or unjustified. *Second category* is the official authority to prepare regulations, enforce, endorse, and execute those regulations. They also strictly control the first group as the *lockdown implementer*. *Third category* is the lockdown motivator. They are responsible to provide direct treatment and/or other supplementary services for livelihood and mental stability. So, they have scope to motivate human behavior in favor of lockdown.

Since this is an entirely exploratory study where concrete theoretical framework is absent, this present investigation followed a systematic procedure to ensure authentication of the study regarding this qualitative investigation through interviews, field observation, and literature review. For this method of study, justification of data source, collection method, and investigators' reliability and validity have potential value and, thus, this study conducted the entire investigation maintaining the basic principles of triangulation methods (Moon, 2019; Patton, 2002; Shareef *et al.*, 2020a). This qualitative study enabled data source triangulation by collecting information from several categories of stakeholders who have influence and interference in the social system of lockdown. Information was collected following different distinct and appropriate methods to validate method triangulation. Depending on the vulnerability, availability, and schedule, data was collected following several methods: a) Face-to-face interviews; b) Telephone interviews; c) Video interviews; d) Discussion; e) Field observation. To avoid investigator bias and preconceived inclination to any outcome, information was collected by four persons (researchers and research assistants). In this way, personal bias was carefully avoided, and investigator triangulation was confirmed.

This study is very much unstructured, since it does not have enough theoretical reference. The collected data and collection procedure, at this present moment, is very risky and sensitive. As a result, to ensure validity and reliability of the outcome, information, i.e., the verbal statement collected from this qualitative method was rearranged, reorganized, restructured, and converted into common discourses and conceptual paradigms keeping the consistency in respect to generic meaning and significance and implied implications.

5. Results and discussions

Given the variations inherent in raw statement and verbal expression, information extracted from the three categories has different focus, motive, reasoning, and style. However, while converting these into small pieces to unfold and synthesize potential significance, commonalities by contrasting potential analogy, systematic direction, and strong theoretical guidelines have been observed among the precise statements of the three categories. Basic steps of discourse analysis were followed to come up with the precise identifications of reasons for violating social isolation and government regulations during lockdown. Under the three broad groups who are somehow related with lockdown system (see Table 1), all the stakeholders were informed about the context of the interviews. Following the accumulation process of statements

under each category, information from each category was organized. In this aspect, as the reference of conversion of long statements into small pieces to reveal justified and structured paradigms of human behavior systematically, the principles of matrix thinking (Patton, 2002) were applied with appropriate coding of material. Above all, the literature review compiled so far (Daly & Wilson, 1999; Rosner, 1995; Shettleworth, 1998; Wood, 2000; Zhonge *et al.*, 2020) was contrasted to further justify the outcome of human behavior. Cultural references were also verified for each group of stakeholder. Finally data was interpreted. Organizational sense-making through cognitive schemas (based on past knowledge) and situated cognition (interpreted considering contextual situation), behavioral requirements considering psychological status derived and recommended by psychological theories (Wood, 2000), and paradigms of sustainability (Cairns, 2004) were also applied to contrast the findings with reliable and generalized paradigms of cause and effect. The findings which indicate the possible reasons of violation and failure of lockdown are shown in Table 2. Findings listed in Table 2 can fulfill the first objective of this exploratory research.

Table 2
Reasons of violation and failure of lockdown

Category	Reasons based on Self-Judgment and Explanations
Lockdown Breaker	<ul style="list-style-type: none"> • Boring to stay continuously at home • For at least a certain time, need for social gathering • Forceful confinement at any place is not tolerable • Stay with family members continuously 24/7 is monotonous • Endless viewing of TV, movies etc., is not enjoyable • Prefer to interact with community, friends, and colleagues • Prefer to enjoy nature and breathe in the open air • Staying at home continuously can stop or obstruct income and professional engagement • Searching for a new opportunity of income • Need daily supporting facilities, such as banking, shopping grocery, medicine • Miss the regular life pattern/ habits (once it was boring, but due to embargo, it is now a dream to get that life back) • To compensate future monetary risk, search for additional income
Lockdown Implementer	<ul style="list-style-type: none"> • Habit to violate law and order and enjoy this style without any tangible benefits • Cannot realize the transmission of this disease and its devastating effect • Absence of social responsibility • People infected by someone else from the community do not care about further transmission from themselves • Create artificial excuse for socialization • Need for engagement in economic activities • Search for new job scopes to compensate deficiency in income • Family bonding is not good and enjoyable from the past experience • Release mental stress
Lockdown motivator	<ul style="list-style-type: none"> • Risk and mental agony aversion • Perceiving anxiety, earn more money for additional transactional cost and security • Behavior and attitude toward life • Image of government among public is most likely not favorable • Do not perceive the outcome and impact of disease seriously and profoundly • Get relief after own infection

	<ul style="list-style-type: none"> • Search for livelihood supports • To dispose mental stress by socialization • Interaction with nature by keeping detachment from relentless discussion about the disease • Common human urge to create some scope of variation
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Postulating a theoretical framework as the fulfillment of the second objective of this research, at this stage, depends on direct evaluation of the relationship between those identified general reasons with the fifteen (15) root and generic causes stated at the end of the theoretical framework section. Now after proper analysis, comparison, and comprehension of the summative findings shown in Table 2, an implied and generic analogy was revealed. From that analogy, it is quite evident that a systematic guideline for ontological paradigms can be drawn. The identified causes revealed from the three categories of primary stakeholders have quite distinct perspectives, unique speculations, and different motives in their perception of the problems. From the analysis, it is seen that, while the lockdown breaker group consider some reasons as the ‘effect’ of the lockdown, the lockdown implementer group perceive the similar reasons as the ‘cause’ of violation. It is quite interesting. However, the third group, the lockdown motivators, view the issue from a totally separate position. They have no direct role and responsibility in terms of official accountability and credibility to execute and implement the lockdown or to abide by the regulations. Heuristically, their involvement, in this interview process is like a moderator. So, their analyses have suggested both causes and effects from neutral speculation. While performing this procedure, the researchers consulted with the previously formed focus group as well. Finally, the following paradigms were identified as the generic root causes of human behavior for any response to the lockdown implemented by the government for the sake of the general public.

This study has revealed and recognized these four paradigms as the fundamental contributions to understanding human behavior and social psychology in violating lockdown, a social isolation system during a world crisis. The identified parameters depicting social behavior are: Derogation and Argument (SDA), Tangible Need and Deficiency (TND), Intangible Desire and Expectancy (IDE), and Evaluation of Benefit and Loss (UBL). These parameters were defined with their conceptual perspectives in order to get and present a synergistic view of the public response and their behavior during a world health crisis. Finally, as a comprehensive guideline, a grounded theory of social behavior as the reasons for violating the social system during a crisis period, identified as the paradigm for lockdown violation (PLV) is presented. It is also argued that the sustainability of a social system does not depend solely on economic, environmental, and social dimensions. Sustainability of any social system also depends on the individual trait which is defined as behavioral motive (BM) (this is supported by Diesendorf, 2000 and Dwivedi *et al.*, 2016). It is a distinct parameter for sustainability of a social system and is not connected with economic, social, and environmental aspects.

Source Derogation and Argument (SDA)

The public evaluates the credibility of a source of information, along with the logic and counter logic of the discourses and regulations, and in their understanding of this evaluation, the public makes a decision to attribute trust to the source of lockdown information, initiator, announcer, regulating authority, and law enforcing authority. This theory can be structured with the conceptual definition: *As the reason for a response to the framework of lockdown of social isolation, it is the generic perception of the public through the cognitive and affective evaluation of government and its associated agencies who are pursuing, imposing, and executing in respect to their credibility, qualification, and acceptability.*

Shedding light on this paradigm, to accept, follow, and maintain the framework of the lockdown of social isolation, the public are attempting to carefully understand, analyze, and comprehend government and its associated agencies' (executive and regulatory authority and law enforcing authority) authenticity, credibility, trustworthiness, motives, and justification of their arguments to develop and pursue their attitude at the outset. While doing this, they do not find any inclination to accept, follow, and maintain the framework of lockdown of social isolation. This is evident from the careful filed observations and extensive interviews. This initial attitude ultimately finds alignment with their behavior to break lockdown. Why?

Reviewing the literature on public administration, government's credibility and accountability and citizens' evaluation (Dwivedi *et al.*, 2013; Rouban, 2008; Shareef *et al.*, 2019/2012), it is inevitably a common and traditional tendency of the majority of the public to violate (either silently or openly) any government's voluntary instructions which do not comply with their economic, social, emotional, and behavioral requirements. This is the overarching sentiment of this segment of the public who typically perceive any government plan as biased with hidden motives and, thus, their opponent (Berry *et al.*, 2010; Brace *et al.*, 2002). They do not find accountability, transparency, and responsibility from the government's unpopular voluntary discourses and regulations which is not aligned with their spontaneous willingness and, thus, they find no intrinsic motivation to abide by that voluntary system (Ellis, 2010; Erikson *et al.*, 2006). Consequently, and heuristically, this segment of the public is vigorously inclined to violate the central idea of lockdown by maintaining free mixing with social community and professional bodies.

This scenario can be explained fundamentally by the central theme of the theory of planned behavior. The construct subjective norm which is clearly an evaluation of the influence of surroundings dictates human psychology to be motivated to pursue an attitude leading to behavioral intention. Since the majority of the public do not comply willingly with a government's sudden and voluntary regulation to follow stringently that which runs counter to their self-interest, they feel the impact of subject norms negatively. This occurs because they do not perceive government's regulation and enforcement favorably in the absence of a transparent and credible image of government. Looking at the balance theory, it is explicitly argued rhetorically that human behavior can be greatly influenced by endorsement of a celebrity if that person has a positive image and acceptability among the majority of people. It means, if a person

likes a celebrity, that person is potentially inclined to like to follow that celebrity's suggestion and instructions. As a result, even if his/her initial attitude was non-compliant; finally, the person willingly exhibits favorable behavior by aligning the initial non-compliant attitude favorably.

From the perspective of the three parameters of sustainability, this perception of non-acceptance of source derogation and their arguments for the lockdown system corresponds to the economic and social dimensions. From interviews, it was abundantly clear that the majority of the public do not have confidence and trust that the government can and will take sufficient responsibility for an indefinite period to understand, compensate, and support their financial requirements. This argument is strongly supported by literature on the public's opinion on the trustworthiness of government (Erikson *et al.*, 2006).

Citizens also do not find any tangible evidence and logical justification from their self-centered perception that government is aware of citizens' personal belongings and feeling of responsibility for their relatives (particularly elderly parents), friends, and colleagues and many other social members. Consequently, the public find that, if they abide by the idea of a lockdown system, their regular social responsibility is hampered severely. Referring to the response of the public in the interviews, it is particularly clear that citizens perceive government and their associated organizations as inconsiderate of their own economic and social needs. Public administration literature on citizens' trust of government performance supports this finding (Ellis, 2010; Shareef *et al.*, 2019).

In addition to the tangible appeal of upholding economic and social benefits, citizens can also be characterized with another dimension for sustainability of any system, i.e., the behavioral aspect. Evaluation of the source derogation and argument (SDA) has a significant correlation to the behavioral traits of individuals (Alvaro & Crano, 1996; Cohen *et al.*, 1987; Moskowitz, 2005). Social psychologists have provided a strong argument from their analysis that different people have a different mental status in giving of their trust on some social issue (Jones, 1996; Moskowitz, 2005; Shareef *et al.*, 2020b). Evaluating this phenomenon in the context of the social psychological aspect of attribution theory (Heider, 1958), it is quite evident that people's ability, scope and tendency to understand, explain and perceive any social issue and source derogation varies significantly, and it is potentially a unique trait of human behavior which differs from person to person (Kassin *et al.*, 2019). External attribution also frequently termed as situational attribution, is a distinct trait of the human being to portray and evaluate external events favorably or unfavorably, trustworthy or not trustworthy from a truly personal choice in considering the situation. This interpretation is related to personal behavior. Internal attribution referred to as dispositional attribution distinctively reflects evaluation of any events from personal attitude (Heider, 1958). Evaluating this combined phenomenon of human behavior postulates that sometimes human beings interpret a social system and its sustainability from a truly and distinctively personal behavioral motive (BM) and characteristics, irrespective of economic, social, and environmental dimensions and requirements. *This behavioral motive (BM) dimension* should be considered for the sustainability of any social system with the conceptual

definition of an *affective urge to uphold any social system without having regard to the economic, social, and environmental requirements necessary for the sustainability of that system.*

Tangible Need and Deficiency (TND)

During this extraordinary situation, all social entities have certain basic needs in respect to the deficiencies they are facing. According to motivation principles and social psychology, while experiencing any deficiencies, several needs surge and emerge in human minds to recover and fulfill those deficiencies (Maslow, 1943; McClelland, 1988). Unless those deficiencies are met, human beings feel discomfort, develop the urge to gain something to fulfill the deficiencies, and relentlessly strive with challenge and motivation to be satisfied (Jones, 1996). This is the driving force of human minds to fight for existence. Social psychologists and organizational behaviorists acknowledge this generic behavior and tendency of human beings and identify their eagerness and efforts (Kassin *et al.*, 2019).

Largely identical and similar behavioral patterns are observed among the public during the present lockdown system resulting in a system being executed to confine them in their residential location and keep them detached from all economic activities and social interactions within community for an indefinite period. During this period, from the interviews, it is quite evident that citizens are visibly and logically stressed because of deficiencies in several areas and are facing a serious challenge to fulfill those tangible and realistic needs; for instance, the need for food, drugs, money, future security, job, family responsibility, duties to parents, friends, colleagues, and community, etc. This study examines the external behavior of the public during this period and their temptation to violate the lockdown system due to an inner realization of tangible need and deficiency (TND). This concept can be illustrated with the following definition: *As the reason for their negative response to the framework of the lockdown of social isolation, it is the generic perception of the public, through the cognitive realization and understanding about their requirements, that they need to flout the law of lockdown in order to meet visible and realistic deficiencies.*

This emotional response is well supported and referenced by the motivation theory principle of Maslow's hierarchy of needs (1943). From the outcome of interviews of the three categories of stakeholders in this new study, it is unanimously identified that the public are mostly conscious, concerned, and worried about their future survivability in terms of family income; so they are enthusiastically and desperately striving to violate lockdown to search for an alternative source of income for their present existence. This argument is strongly supported by the first phase of motivation 'physiological need' of Maslow's hierarchy of need theory. Other content theories of motivation, like McClelland need theory (1988) also provides strong support to explain the public's present feelings of need and deficiency and their action of behavior to fulfill those needs by violating or at least undermining the system of lockdown which excludes them from all economic and social activities for an uncertain period.

Now looking at the cognitive dissonance theory to analyze this aggressive behavior of the public to break the lockdown and create a situation of apparently unnecessary social unrest, it can be explained by the fact that human beings, when perceiving misalignment between their attitude and behavior, feel uncomfortable. It may push them to take decisive action. From this attitude, since they relentlessly experience the deficiencies of several visible and essential household materials, they inevitably and eagerly think of ways of meeting these issues immediately in this uncertain situation. On the other hand, they are confined in their houses which hinders any efforts or possibility of meeting those requirements. This is a serious and profoundly felt challenge which suddenly pushes them to break the system of lockdown, go outside, and gain some benefits which can at least partially fulfill certain needs. This way, the public fulfill, or at least try to achieve and feel a certain level of comfort by aligning their behavior and attitude in the same line.

Obviously, this challenge is closely associated with social and economic dimensions of sustainability. As per the recommendation and assertion of theorists of social sustainability, out of three parameters, economic and social dimensions are two important aspects of any social system to be met for its existence (the environmental dimension is not relevant in this situation). From the aforementioned arguments, conceptual definitions, and illustrated paradigm, it is explainable that tangible need and deficiency (TND) is the certain realistic demand and effort to fulfill several visible requirements which are closely intertwined with economic existence and social responsibility. Without meeting economic needs (for example, earning, job security, future scopes, present shortage, household essentials) and social needs (like responsibility to other close members, parents, brothers and sisters, friends, colleagues, and community members), the sustainability principle argues that no social systems like lockdown can be effective, successful, and achieve its desired goal.

Intangible Desire and Expectancy (IDE)

Outside of visibly realized deficiencies, human beings always have several hidden mental desires and expectancies which may surge during this period and this is evident from the interviews. Closely deliberating over the reasons identified by the three stakeholders, it is quite interesting and noteworthy that the sought causes are divisible sharply based on visible realistic items and some mental items denoting heart-felt desire. As such, these requirements can be differentiated into two categories, tangible and intangible. The previous one is already described. Now the latter issue, intangible desire and expectancy (IDE), is examined.

Psychologists have long sought to analyze human minds with regard to the fact that, while facing any embargo or the forbidding by some external forces to perform something, internal desire grows and eventually propagates to do that apparently banned action (Tetlock *et al.*, 2000; Wegner & Bargh, 1998). Human psychologists have revealed that it is a common human desire to do something which is not allowed in some specific situations (Wegner, 1994; Zimbardo *et al.*, 1993). A strong desire grows uncontrollably, flourishes, and jumps into action

to break that imposed barrier to get the mental relief of freedom and capability to perform following an implied expectation (Trivers, 1971). Organizational theorists also provide rationales and justifications for this human behavior, shedding light on causes pursuing intrinsic motivation (Alvaro & Crano, 1996; Chen & Lin, 2015; Cohen *et al.*, 1987; Moskowitz, 2005; Yin *et al.*, 2015). The Expectancy Theory of Victor Vroom (Vroom, 1964) asserted that, if a human being finds a mental assurance of achieving any recognition by engagement with full efforts, they are enthusiastic to do this with motivation.

From interviews, it is revealed that several reasons pointed out by the stakeholders are not rooted in visible logic; some are clearly an internal expression of fulfilling mental need. This is quite logical. Human beings cannot be expected to behave without emotional desire when they face a shortage of such issues. Particularly, during a crisis, when mentally someone feels that they cannot fulfill some desires right now due to many obstructions imposed by society, those desires erupt more aggressively to be fulfilled by violating a social lockdown which has substantial theoretical support from human psychology (Aronson *et al.*, 1995; Fiske & Tetlock, 1997). People miss their routine life, their friends, colleagues, their professional attachment manifested by social capital, which are forbidden now for an unspecified time (Gharehgozli *et al.*, 2020; Martin *et al.*, 2020). They are also not permitted to enjoy their morning walk, evening jogging under the open sky, walking along the road in their familiar community, taking the air without any embargo. Consequently, as a human being, they feel the earnest desire and expectancy to fulfill emotional feelings by forgetting the necessity for social lockdown which has been imposed on them for the sake of their lives. This human behavior can be described and portrayed by the theory of intangible desire and expectancy (IDE) and the paradigm can be defined as: *As the reason for the response against the framework of lockdown in social isolation, it is the generic perception of the public through the affective feelings about their requirements to fulfill emotional desire and expectations.*

This psychological behavior is relevant to the theory of suicidal behavior (Joiner, 2005). Human beings prefer any destructive situation and embrace that situation eventually when they find no other route to escape from any psychological status perceived as stressful, boring, and provocative. Drawing on the analogy of human behavior to change a life status destructively during lockdown period, parallels in human behavior to change the status of confinement is observed. They find some clues and justified reasons to violate the lockdown which restricts them from socialization with their community. Confinement is distressful and breaking the theme of lockdown is more conducive to fulfilling their intrinsic and extrinsic urge and necessity. This provocation and indulgence is a confluence of the respondents' insight and foresight speculations and future anticipation.

In favor of the aforementioned arguments, Maslow's hierarchy of need theory and cognitive dissonance theory can provide background support. As per our previous explanations, people always have a tendency to keep their behavior in the same line of desire derived from inclined attitude. During lockdown, as already illustrated, the public have many internal desires

to accomplish which suddenly remain unfulfilled due to isolation from community and confinement in their residential premises. An attitude developed reflecting those desires and beliefs should have an urge to be aligned with behavior to violate lockdown in order to alleviate dissonance (Supported by Leon Festinger, 1962). Maslow's theory (1943.) can also provide an understanding of people's desire for emotional relationships within society and self-esteem as the third and fourth stage demand for intrinsic motivation.

In comparison to the presumable requirements for sustainability, fulfillment of social aspect (social dimension) is surely an overarching concern in this context. Plausibly, this intangible emotional desire is not considered to uphold any issue related to economic and environmental aspects. This emotional desire and expectation, as per the studies of human psychology, is certainly very unique and distinct and may be congruent with personal human traits (Daly & Wilson, 1999; Weinstein, 1994; Wegner & Bargh, 1998). Arguably, the feeling and urge of intangible desire and expectation (IDE) varies from person to person and is an essential demand for sustainability to conserve one's own behavioral emotion. However, following the conceptual definition of this theory of intangible desire and expectation (IDE), there is another dimension which is a prerequisite for sustainability of any social system other than the social dimension. As explained before, this emotion is truly and distinctively portraying one's own behavioral characteristics and is a prerequisite condition for sustainability, irrespective of economic, social, and environmental dimensions and requirements. It is an appeal to reduce and get relief from unbearable stress and fulfill intrinsic demand for socialization. This dimension for sustainability can be termed, in this context, as behavioral motive (BM) which is defined previously.

Evaluation of Benefit and Loss (UBL)

This is a pragmatic evaluation by the human being, and as a rational person, it is a common habit to evaluate both benefits and losses before taking a final decision (Daly & Wilson, 1999; Frey & Osborne, 2017; Trivers, 1971; Tversky & Kahneman, 1992). Marketing, psychology, and organizational researchers (Ajzen, 1991; Alvaro & Crano, 1996; Aronson *et al.*, 1995; Cohen *et al.*, 1987; Dulaimi *et al.*, 2003; Moskowitz, 2005) have analyzed human behavior for many years and have decided that any decision in favor of any actions depends on several interconnected issues which is relevant to its relative favorable merit. Generally, and relatively, any social action is intertwined with several benefits and losses in the context of specific situations, surroundings, time, and associations (Thornton *et al.*, 2011). After analyzing and deliberating over the pros and cons of any actions, depending on the possibility of overall benefits to be gained against risks of losses, people finalize their decision whether they will perform that action or not. Particularly, social economists have asserted that for any incidents associated with economic benefits and losses, people's tendency is to evaluate its relative merits and then take a final decision, either favorable or not (Cohen *et al.*, 1987).

The presently imposed and implemented lockdown, as a social system, has several issues which are closely connected with economic activities. While keeping the public apart from their jobs, earnings, and other economic transactions, isolating them from all social interactions, community gatherings, and prohibiting them from performing routine responsibilities for people dependent on them (like parents, relatives, friends, colleagues, and other community members), there exist enormous multidimensional risks, gains, benefits, losses, and problems. They might lose their jobs. The possibility of income opportunities and scopes might be reduced. Many financial transactions may not be performed on time. The opportunity for getting newer jobs in the future might shrink. They cannot perform many duties and responsibilities. On the other hand, the Covid-19 infection is dangerous and life threatening. It is a serious concern not only for oneself, but also for other family members. Following government regulation and maintaining social isolation is a social and civic responsibility and matter of accountability. Giving time to family members, while getting scope in this present scenario, is also a positive aspect. So, there are many issues which have positive and negative aspects.

A person, thoroughly, cognitively and affectively, evaluates and takes final decisions based on, and in line with, their own mental ability. Based on the final outcome of a decision, people behave accordingly. This paradigm, following the final reasons revealed by evaluation, can be illustrated by the term evaluation of benefit and loss (UBL). As the reason for a response to the framework of lockdown of social isolation, *it is the judgment of the public through the cognitive evaluation about relative gain and loss from the decided action.*

This phenomenon can be well explained in the light of prospect theory. This theory suggests that before deciding to take any action, it is common human behavior to compare, contrast, and finally evaluate its relative merit by judging the possibility of potential losses and potential gains. It is a relative judgment. Gains and losses might not be purely financial; it may have other social forms. However, a final decision depends on weighing all the issues in terms of opportunities and risks and, thus, benefits and losses in light of comprehending all the issues combined. A rational decision-making model also certifies this behavior of contrasting potential gains achieved and potential losses incurred (Bazerman, 2005; Brunsson, 1989; Cohen *et al.*, 1987). Williamson (1987) in transaction cost analysis advocated for this human behavior in order to decide for any action of behavior under a specific situation.

For the sustainability of any social system, for instance the lockdown system, this paradigm of evaluation of benefit and loss (UBL) is directly related to economic dimensions. Without meeting economic desire and basic requirements, any social system cannot be sustainable. However, this paradigm also has an urge to uphold the social dimension. Evaluation of benefit and loss (UBL) also has some issues relating to social duties for those outside one's own family, social responsibility for those members who are living with him/her, and for the general community through isolation and lockdown, and this paradigm is essential in protecting the social dimension of sustainability. Therefore, this theoretical construct, evaluation of benefit and loss (UBL) has both economic and social dimensions of sustainability.

Finally, after integrating the aforementioned paradigms, a comprehensive grounded theory for adaptability with any social system during a crisis period, for instance, a lockdown violation scenario as a social phenomenon can be proposed: *Source Derogation and Argument (SDA)*, *Tangible Need and Deficiency (TND)*, *Intangible Desire and Expectancy (IDE)*, and *Evaluation of Benefit and Loss (UBL)* are the primary and fundamental reasons of the response and consequences of human behavior in a certain crisis of a social incident which causes the public to violate the social system (for instance the newly imposed government regulation of lockdown by maintaining social isolation). This grounded theory can be regarded as the paradigm for lockdown violation (PLV).

6. Theoretical and managerial implications

This study has enormous potential to contribute in both the areas of academic knowledge and practitioners' understanding. It has significant potential to enrich behavioral and psychological studies and literature on sustainability. At the same time, government, public organizations such as law enforcing departments, private donors, NGOs, international organizations like WHO, and the United Nations can avail of readymade and up-to-date views from citizens about their reluctant behavior to abide by government regulations for social isolation, termed here as lockdown during a crisis period. Since this study has collected, accumulated, and analyzed views, doctrines, and suggestions of different active and passive members of the lockdown system, it can provide a generic and generalized view of human behavior during a crisis moment with regard to following government regulations to protect themselves and the surrounding society.

In terms of sustainability, this research has potential scope to contribute to the understanding of the root causes of the ineffectiveness of lockdown — a system of social isolation. From interviews of several stakeholders, this study has identified some definite and structured reasons about the partial collapse and failure of social restrictions to ensure the desired and targeted goal. Practitioners such as government, law enforcing agencies, and medical professionals can garner deep insight from these findings as to the reasons for breaking lockdown. Behavioral scientists and social psychologists may find this study interesting as the research reveals several hidden and unfocused areas of background information on not obeying social isolation. Therefore, the paradigm for lockdown violation (PLV) is an excellent model to be explored by both academics and practitioners.

The outcome of this study can also enrich the present literature on human behavior which it explored in its journey to analyze the public's motives, attitudes, and perceptions. The public's external behavior in response to lockdown and social isolation and their thought process with regard to violation can provide some new avenues of study about human behavior during crisis moments. Behavioral scientists can understand better the public's process of evaluation about the authenticity of the source and their arguments. While experiencing any need and deficiency, they may observe how people strive to meet those requirements overlooking and undermining

potential risks of transmission of a deadly virus. This may bring new challenges to the behavioral scientists to motivate, control, and manage human beings for the sake of society by generating behavioral discourses. This kind of generalized crisis moment and the public's global behavior may definitely provide a new reference for behavioral study.

Social incidents, interactions, social systems in association with human motives are also contrasted, explained, and revealed, and, thus, this study has made a substantial input into the understanding of social psychology, particularly in the crisis period. This exemplary study has pointed out that the human motivation to violate rules in any dangerous situation depends not only on tangible benefits but also intangible desires and expectations which arise from affective dissonance. It means focusing on cognitive dissonance theory, feelings of discomfort do not generate just from cognitive dissonance but may also flourish from the perception of affective and emotional dissonance. The paradigm for lockdown violation (PLV) and the grounded theory may motivate academics to conduct further research into human psychology and its responses in crisis moments.

Lockdown is a social system. However, active social members of the public may not find enough enthusiasm to abide by the government's instructions and regulations. As such, the effectiveness of the lockdown system is put under question. Therefore, the outcome of this research can benefit the literature on sustainability by helping to understand the parameters to be upheld for sustainability of any social system. From sustainability literature, generally it is recommended that any system must be sustainable to fulfill its targeted goal if it can meet requirements from three areas, environmental quality, social responsibility, and economic demand. However, this study, from the analysis of human psychology and behavior during a crisis, has suggested that upholding benefits from those three dimensions alone is not enough for sustainability of any social system during crisis periods. Practitioners can get certain constructive ideas from this finding. In any critical incidents where masses of people are connected, sustainability cannot be ensured without considering and reflecting the human mind. And in this scenario, both cognitive and affective attitudes are equally important.

Social isolation is currently recognized as the only effective solution for this pandemic; however, citizens of different countries, irrespective of being developed or developing, are not aligned with government regulations to follow this social isolation for long periods. Governments of different countries are struggling to maintain social isolation. As such, this study can provide a very pragmatic understanding about citizens' behavior during any crisis moment. Practitioners and policy makers should understand that feelings of insecurity and the perception of uncertainty for their future, and a perceived unreliability around a government's responsibility, cause citizens not to obey and abide by social isolation regulations.

The perception of government administrators is that public behavior is very irregular, undisciplined, and that they should be regulated (supported by theory X, McGregor, 1960). During some specific situations when they face challenges to continue their job, income

opportunities, or perform social responsibilities due to protective rules and regulations of government, they are disinclined to obey those regulations, considering the government as their counterpart, not allies (Ellis, 2010; Erikson *et al.*, 2006). Particularly, while facing hardship in the short run, the public becomes arrogant and reacts aggressively to any imposed regulations which may restrict their movement without considering the long-term consequences. As a result, many ruling authorities in the world, particularly law enforcing authorities have sometimes the tendency to follow the hardline without any preplanned attempt to convince them with a softer more even-handed approach. On the other hand, psychologists have also postulated that, if two parties (here government and public) bear mistrust mutually for the opposite party, during any crisis moment, this perception of non-confidence for each other may be aggravated, believing the counterpart's action is from self-interest. While the governments of different countries are imposing lockdown for their citizens, restricting them from community gathering and professional activities, a substantial portion of citizens do not take this regulation seriously. This is an explicit observation and theory for the policy makers which has been derived and proved from this study. This identification is supported by public administration literature (Ellis, 2010; Erikson *et al.*, 2006; Shareef *et al.*, 2019).

The human mind is very critical, complex, and it has some internal desires which must be fulfilled for the sustainability of the system, otherwise some people will not be motivated to abide by and execute the norms of the social system, and, ultimately, the social system will fail to fulfill its targeted goal (Bengisu & Nekhili, 2006; Gavilan *et al.*, 2020). This parameter which is essential for the sustainability of the social system is not connected with generalized economic, environmental, and social dimensions, rather it is very much unique and distinctive to individual behavior. Without fulfilling certain intangible desires of the human mind, no social system can be effective and, thus, sustainable. This dimension is referred here as the behavioral motive (BM) dimension. Realistically, for a social system, specifically during an emergency period, this new dimension can be analyzed by sustainability literature.

6.1. Limitations and future research directions

As an extraordinary exploratory study, this study has several limitations. It is not developed based on information gathered over the long term, but rather from the recent lockdown system which is a new phenomenon. In future, prospective researchers can collect more information from many countries and experiential settings to expand on these findings. The outcome of this research has proposed a grounded theory rooted on the paradigm for lockdown violation (PLV). This overarching model should be tested through a quantitative study. Since this model is developed based on the investigation in a single and developing country, this is a

limitation of this study. It is suggested to test this model in both developed and developing countries to understand generalized human behavior.

Future researchers can develop measurements of the four paradigms and constructs of the proposed grounded theory and launch a quantitative positivistic study to verify the validity of the model in any circumstances generalized to relevant crisis events. This theory is neither country nor culture dependent. Cultural experts might have the opinion that cultural attributes should be incorporated as the moderating variables to test their effect on the four paradigms to formulate a response behavior of the public during crisis moments. With definite propositions and quantification of behavioral models as the fourth dimension of sustainability, social scientists can explore the sustainability of the social system.

7. Conclusion

In some countries, particularly developed countries, lockdown has ensured exemplified benefits in terms of stopping spread of corona virus; for example, New Zealand, Canada, Germany, The Republic of Ireland, Norway, China, South Korea and Japan. Citizens of these countries have shown more inclination to follow and maintain social distancing and abide by government regulations. As a result, infection and mortality rate is much lower in these countries than many other developed countries like the USA, Italy, Spain, The United Kingdom, France etc.

However, at present, worldwide, the most common, frustrating, and popular regulatory word is lockdown, a social system to keep the public confined in their homes or within defined areas for social isolation. For this generation it is a novel, unexpected, phenomenal, and an unimaginable event in the lives of the citizens of the earth. Nevertheless, worldwide, irrespective of classifications such as developed or developing countries, irrespective of country, race, gender, color, or class, a previously unencountered or countenanced disease in the name of Covid-19 is spreading and making the lives of all people worldwide miserable in a unique and distinctly stressful manner (Ellyatt, 2020). Due to its virulent, unbelievable and non-discriminatory capability to spread socially and transmit among communities, Covid-19 has crippled all governments in the world and forced various and unprecedented levels of lockdown socially, nationally, and globally to be introduced (Zhonge *et al.*, 2020). It is forcing governments globally to halt all kinds of economic, social, and individual activities. For an indefinite period, the most powerful governments have helplessly postponed all kinds of routine activities, heretofore considered vitally important for existence.

Since this Covid-19 virus is extremely infectious and can be transmitted by any form of close contact, all citizens are advised, instructed, and mandated to be isolated from their jobs, family gatherings, and community activities. Under this context, the public are instructed to maintain lockdown in their homes and to maintain social isolation. So far, medical scientists and

WHO have identified that isolation from the community and lockdown is the only feasible solution to counterattack this deadly virus and keep all human beings and society risk free from the transmission of Covid-19. Consequently, governments all over the world have passed and announced recommendations, regulations, punishments, and rewards, advising their citizens to maintain lockdown, the social isolation system (Zhong *et al.*, 2020).

The question is, are the public obeying this lockdown, which, up to the present moment, is the only known solution to help the world, society, community, and individuals to survive? Unfortunately, it is not being strictly followed by the public. Many are not interested or happy to be locked down in their homes for an indefinite period for many reasons; obviously the dominant reasons are related to economic, social, and behavioral issues. Many people are frequently breaking the rule of social isolation, sneaking out to the neighborhood community, and enthusiastically trying to come close to their social friends maintaining the inherent urge for social capital (supported by Erikson *et al.*, 2006). Violating social isolation which can be achieved through lockdown is devastating as it can increase the number of infections in a geometric rate. Due to violation of the central theme of lockdown, in Italy, France, Spain, The United Kingdom, Belgium, and The USA and many others, corona virus transmission is causing a vast surge in the number of deaths worldwide. However, this transmission can only be controlled, and the death rate minimized by maintaining lockdown stringently.

The public must abide by government regulations to keep themselves isolated and separate from community interactions. They need to stay at home. However, regrettably, it has been frequently observed that in almost every country, the lockdown system is not completely successful and effective in order to achieve its desired goal. Consequently, corona virus has maintained its momentum and ability to rapidly spread among communities. Every day the transmission rate and death rate in all countries (except countries like China, South Korea, New Zealand, Ireland etc. who were able to impose the lockdown strictly) are increasing at an alarming rate. The most powerful counties are no exception. So far, the only remedy, prescribed by WHO, is to maintain social isolation. Therefore, it is an urgent research question to investigate why people do not feel the urge to abide by a government's regulation when it is relentlessly published by several communication modes that this disease is potentially fatal and people must be locked down to protect themselves and their society from transmission of corona virus.

Now closely looking at the four paradigms and analyzing their perspectives, concerns, and guiding principles, it is clearly identifiable that a common notion of cause for this non-compliant behavior among the public is shortage of trust and deficiency of confidence in government to protect their future needs (Coombs, 2020). This is a traditional problem prevailing over time. It is not created from one side alone, either the government or the public. It is an acute issue which exists in our society for many years which is causing mistrust, misunderstanding, and scope to be suspicious of each other's behavior (Brace *et al.*, 2002). On one side, focusing on the literature on public administration (Berry *et al.*, 2010; Brace *et al.*, 2002; Ellis, 2010;

Erikson *et al.*, 2006; Shareef *et al.*, 2019), the government is still regarded, in this present era, as the ‘governor’ or ‘administrator’. Government is not interested in being identified as the ‘public service provider (PSP)’. Reviewing literature on the public system and citizens’ trust (Berry *et al.*, 2010; Dwivedi *et al.*, 2013; Erikson *et al.*, 2006;), it is clearly established that citizens can be forced by government to obey any system by punishment, but cannot be forced to obey and maintain any system of regulation if it is imposed by government as a voluntary system. Citizens always have mistrust due to the shortage of confidence about government’s motives, hidden mission, and attitudes toward them as the governor. As the ruler, they are considered as the opponent of the public’s self-interest and behavior (Ellis, 2010; Erikson *et al.*, 2006). As a result, very rationally, whenever the public find any opportunity, they disobey government regulations in order to look after their own interest and protect personal gain.

As the solution based on the grounded theory, for confidence, trust, appropriate communication, and realization from the inner mind, regulations should be communicated with the public by experts; for instance, health experts, medical scientists, social psychologists (supported by Balance theory). Governments should also use celebrities to reach out publicly with two-way communication strategies. These celebrities may give confidence, credibility, and authenticity, and thus, acceptability. Also, it is important to craft the statement of discourse on the regulation regarding lockdown with proper analysis of marketing experts for justified argument and counter logic. Precisely, the government and its associated agencies should strive to create and endorse credibility in favor of the source of derogation and its strength of argument to reflect the public’s need and deficiencies. Regulatory statements should also consider the public’s intangible mind, for instance their desires and expectations. Regulatory instructions must evaluate different segments’ relative gain and loss in terms of their economic, social and behavioral perspectives.

As per the outcome of this study, these strategies are the key to delivering the effective management, control, clarity of public discourse and successful outcomes in any social crisis, with a view to encouraging citizens to abide by sustainable control methods in line with scientific realities and the corresponding advice of civil authorities.

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