Habits: Theoretical Foundations and a Conceptual Framework on a Managerial Trap and Chance

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Abstract—The overarching aim of the paper is to incorporate the micro-foundations perspective in strategic management and offering possibilities to bridge the macro–micro divide, to review the concept of habits, as well as to propose research findings and directions in terms of further exploring the habit construct and its impact on higher epistemological level phenomena (for instance organizational routines, which is a domain inherently multilevel in nature). To realize this aim, the following sections have been developed: (1) habits' origins, (2) habits – cognitive constellations, (3) interrelationships between habits and mental representations, intentions, (4) habits and organizational routines, and (5) habits and routines linkages with adaptation. The conclusions that have been made support recent and current studies linking the level of individual heterogeneous agents with the level of macro (organizational) outcomes.

Keywords—Behaviorism, habits, micro-foundations, routines.

I. INTRODUCTION

THE role of individuals (managers) and their characteristics influencing decision-making processes has been extensively evidenced and described by scholars representing the behavioral approach in management science (especially strategic management), e.g. [1]-[4] with its, *inter alia*, bounded rationality concept as well as upper echelon theory, e.g. [5]-[7] emphasizing that organizations constitute the reflection of their top managers hallmarks (especially cognitive ones and emotions). The habits concept seems to be involved in those two perspectives.

Recent research supports the argument that habits constitute a salient motive of behavior that can help explain performance and other outcomes [8]. The agents' habits ('habits of mind', 'acquired habit', 'habitual tracks', 'habitual production processes') have already been considered, e.g. in [9], [10], as a particularly important source of heterogeneity. References [9], [10] treat habits as dispositions to act, to experiment with something new, and simultaneously, as an analytical habit of mind. Current conceptualizations, however, direct towards the automaticity and automated dispositions to repeat actions.

The complex human (including managerial) behavior is asserted to be mediated by the person's active construal of the environment meaning, by the person' s current intents, and by the exercise of conscious choices and decisions based on these constructs and purposes, e.g. [11], [12]. The work on

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automaticity is under the influence of both behaviorism (focus on external, environmental causal forces) and social-cognitive psychology (focus on the psychological mechanisms mediating between the environment and the individual responses).

The majority of activities (also managers' ones) might be characterized by repetition and automaticity that play a salient role in many research fields. The discussion, as for automaticity in social cognition and behavior, involves arguments concerning the salience of consciousness *versus* unconsciousness, as internal behavior mechanisms [12]. Nonetheless, repetition is not a necessary condition to develop a habit. A habit is formed through repetition of a response in the same or very similar context, in which it is stuck in. Habits are important for predicting behavior, changing behavior, self-regulating. Moreover, they may be dependent on goals or not.

Additionally, habits are strictly associated with the concept of organizational routines, as well as adaptation at both the individual level and organizational one.

The key aim of the paper is (1) to review the concept of habits in terms of its origins, constellations, interrelationships with mental representations, intentions, organizational routines, and adaptation, as well as to (2) work out some proposals for further habits' exploration due to managerial decision-making in organizations and its impact on higher level facets. Hence, the specific research questions are as follows:

1. What is the association between mental representation and procedural memory activation and the relationship between the context cues and habit activation?
2. What is the association between managerial intentions, motivation, and self-regulation and the relationship between mental representation and procedural memory activation and habit activation, as well as the relationship between habit activation and habit performance?
3. What is the association between managerial decisions frequency and habits strengths?
4. Does the motivation for attaining a particular managerial goal influence repetitive decisions and habit strength?
5. Does the context stability and instability have an impact on repetitive decisions and habit strength?
6. Do the context dynamics influence the impact of intentions, motivation, and emotions on habit performance?
7. What is the association (if applicable) between habit frequency and strength and the impact of managerial intentions?
8. What is the association (if applicable) between the self-

regularity and habits strength and performance?

9. What is the association (if applicable) between task routinization, difficulty degree and habit strength?

10. What is the association (if applicable) between the habitual managerial behavior and the degree of adaptive decisions making dependently on context stability/ instability degree?

11. Do both conscious processes and determinism influence the processes of forming and developing habits?

12. Do individual habits-driven behaviors constitute the micro-foundations of organizational routines?

13. What is necessary to make managers conscious of chances and traps involved in habits?

14. Do habits and routines contribute to individual and organizational inertia?

The aim has been realized through extensive literature studies and deductive interfering by means of a heuristic conceptual framework.

The paper structure is six-fold. The first section presents the origins of the habits concept in brief. The cognitive constellations of that concept have been highlighted in the second section. Then, the relationships between habits and intentions have been emphasized. The fourth section shows the linkages of the concept with organizational routines. The next section illustrates the associations between habits/routines and adaptation. Finally, some conclusions, proposals, research directions, and research limitations have been presented.

II. HABITS–HISTORICAL PERSPECTIVE IN BRIEF

Referring to the early origins, classic authors of Antiquity such as Epictetus, as well as Aristotle, recognized the phenomenon called 'a habit'. Nonetheless, it might be envisaged that the habits concept emerges from radical behaviorism, as well as social-cognitive psychology. Behaviorists invoked associative learning and stimulus-response habits to explain the repetition. As for behaviorism, the following references, eschewing cognitive and motivational mediators of behavior and locating the reasons for behavior in the environment, have influenced the habit construct development: [13]-[16]. Reference [14] posits that habits are modifiable reflexes, a connection extending from some sense organ straight through the organism. References [15], [16] (in accordance with radical behaviorism) ruled out cognitive, emotional, and motivational mediators of the stimulus – response relation as such constructs could not be measured independently by an outside, disinterested party. The behaviorists denied the existence of the necessary intra-individual, psychological mechanisms (e.g. perception, memory, conscious deliberation) mediating between the environment and the higher mental processes [12]. References [17], [18] criticized the behaviorism approach and introduced new interests in that field. Social and personality psychologists, as well as the cognitive approach representatives, changed the behaviorist view that habits rely mainly on stimulus-response associations without mental representation and emphasized other antecedent factors.

Moreover, cognitive scientists began to investigate the internal and unconscious constructs and mechanisms, as well they incorporated metaphysical mental mechanisms such as memory and decision making into a deterministic account of mental processing [12]. Contrary to [16], [19] posed that causation of higher mental processes was located in the mind itself, instead of in the environment.

III. HABITS – COGNITIVE CONSTELLATIONS

In general, habits are characterized by habitual repetition. In accordance with [20], a memory representation of the habitual response emerges between cue perception and habit performance.

The selective most common and representative conceptualizations of habits phenomenon are presented in Table I.

Habits are very rigid, as has been proved by neural evidence, indicating that all responses being repeated become chunked or integrated in memory with the contexts that predict them. Consequently, it results in limited conscious control to proceed to completion.

It has been evidenced that higher mental processes, as well as complex forms of social behavior can occur automatically, triggered by environmental events (context cues) (e.g. [37]) and without an intervening act of conscious will or subsequent conscious guidance [12], since human perceptual activity is driven by stimuli from the environment. According to [38], and the understanding of dual-process models, a habit constitutes one of three distinct types of low effort, automatic processes. It evokes mental representations without conscious and effortful processes of categorization and interpretation. Obviously, that effect is not obligatory – for instance, when a particular behavior leads to negative consequences it might be controlled or inhibited [39], [40]. Moreover, although habits reflect the features of automaticity, habit responses can be controllable. Habits involve a characteristic pattern of responding that differs from other types of automated processes as well as the repetition of habit responses can be contrasted with the variability of responses that results from automatic activation of concepts and goals [27].

Reference [21] has suggested, as a result of the studies conducted, three views of habit: direct-context-cuing, motivated-context models, and implicit-goal. The two first constitute two possible forms of the context cuing of habits [22]. In accordance with the direct-context-cuing, habits are associated with repeated activation in terms of the links between context and response representations. The implicit-goal perspective focuses on developing habits when people repeatedly attain a goal via a particular behavior in a given context, however, habit performance does not depend on goal activation – implicit goals provide guides to action, yet they do not plausibly explain the context cuing of habits. The motivated-context models emphasize motivational value of environmental cues in terms of neurotransmitters mediating reward learning (the dopamine role). If actions are undertaken under multiple circumstances, habits depend on contiguity between behavior and contexts [21, p. 200].

TABLE I
HABITS – SELECTED CONCEPTUALIZATIONS

Author	Definition
[21]	Habits are response dispositions that are activated automatically by the context cues that co-occurred with responses during past performance.
[22]	Habits emerge from the gradual learning of associations between responses and the features of performance contexts that have co-varied with them.
[23]	Habit involves repetition of a response under similar conditions, so that the response becomes automatically activated when those conditions occur.
[24]	Habits are sets of automatic scripts executed in response to specific circumstances that are monitored by unconscious emotional subsystems for compatibility with goals.
[25]	Habits are situation-behavior sequences that become unconscious and automatic; they are similar to reflexes, but they have to be learned.
[13], [15], [16]	Habits are thought to be guided by well-learned stimulus–response combinations that are reinforced by positive rewards.
[26]	Habits are guided by mental representations of goal–means associations. Habit formation occurs when the same means is repeatedly and consistently retrieved for the same goal because it promotes an automatic search for and access to these means in memory.
[27]	Habits arise from context–response learning that is acquired slowly with experience (…). Only with extended repetition in stable contexts are behavior patterns likely to be represented in habit learning. By reflecting the recurring features of people's past experiences, such systems shield existing knowledge against potential disruption from being overwritten or unduly distorted by new experiences.
[28]	Habits are characterized by a specific subset of the features that are commonly used to diagnose automaticity.
[29]-[31]	Dispositions to engage in previously adopted or acquired behavior that is triggered by an appropriate stimulus or context.
[32]	First, habits … are largely learned; in current terminology, they are acquired via experience-dependent plasticity. Second, habitual behaviors occur repeatedly over the course of days or years, and they can become remarkably fixed. Third, fully acquired habits are performed almost automatically, virtually non-consciously, allowing attention to be focused elsewhere. Fourth, habits tend to involve an ordered, structured action sequence that is prone to being elicited by a particular context or stimulus. And finally, habits can comprise cognitive expressions of routine (habits of thought) as well as motor expressions of routine.
[8] on the basis of: [9], [10], [33], [34]	Habits tend to involve an ordered, structured action sequence that is prone to being elicited by a particular context or stimulus. Habits occur repeatedly and can become remarkably fixed (Habit, which persists once it has been acquired even though its cause has vanished [9, p. 136]). Fully acquired habits are performed almost automatically, virtually unconsciously, allowing attention to be focused elsewhere (Business life, like any other, consists mainly of routine work based on well-tried experience, partly ancestral; only within the boundaries of routine do people function both promptly and similarly [33, pp, 297-298]). Habits tend to involve an ordered, structured action sequence that is prone to being elicited by a particular context or stimulus. Habit can comprise cognitive expressions of routine (habits of thought), as well as motor expressions of routine (the habit, inculcated by agents other than the disciplined individuals themselves, of obeying orders and of accepting supervision and criticism [34, p. 211]). Habit is one of several drivers of action (the well-known fact that the great mass of our everyday actions are not the result of rational reasoning on rationally performed observations, but simply from habit, impulse, sense of duty, imitation and so on; although, many of admit to satisfactory rationalization ex-post either by the observer or the actor) [35, p. 170].
[36]	Habits constitute the propensity to behave or think within a particular class of situations. They are involved both in upward and downward causation mechanisms.

The habits construct is also considered by scholars in terms of their strength. Reference [23] regards that repeated behavior and a stable context are the conditions under which associations linking specific context cues to specific behavioral scripts are likely to be formed, and are therefore, the best available observable indicator of such mental associations. In turn, [47] presents, in accordance with the research data obtained (habit strength moderated the extent to which intentions guided action), that there are associations between habit strength and intentions in action. In detail, the authors consider the intentions as predictors of behavior that decline as habit strength increases. According to [42], conducted meta-analysis showed that habit strength reflected in frequency of past performance was positively correlated with favorability of behavioral intentions. Hence, the mechanisms and processes of habitual control imply challenges towards changing behavior. Reference [43] examined the role of interventions in terms of relationships between habit performance and context. The authors concluded that strong habits remained strong regardless of people's intentions, provided that the context was stable. To the contrary, when the performance context changed, strong habits were interrelated with intentions. Hence, context changes disrupt habit cuing and enable people to act on their intentions (see [43]). Moreover, weak habits' performance was distinguished regardless of context stability. To support that view, [44] (supporting evidence to [45]), [46] evidenced that context changes can break the automatic cuing of habit and promote responsiveness to intentions and newly obtained information, as well they proposed to consider effective habit-change strategies regarding interventions and performance contexts.

The concept of habits is also associated with self-regulation. Habits are more apparent when people have limited self-control resources – then, people perform desirable habits and fail to deplete undesirable ones [21, p. 201] and it is also connected with the fact that habits depend on procedural memory [47], [48]. People form habits as they encode these context-response patterns in procedural memory [22, p. 843].

It ought to be emphasized that whereas automatic behavior (including habitual one) can be easily comprehended as a deterministic account of behavior, the role of consciousness or controlled processes in the habit phenomenon does not preclude a deterministic account of it (compare [12]).

IV. HABITS – INTENTIONS INTERFACE SUMMARIZED

Although human behavior is purposive, there is still a debate whether habits are developed by means of goals or not. As has been aforementioned in the section 'Habits – cognitive constellations', goals are very salient in terms of forming and

developing habits since they can be simply activated by the environmental cue and/or situation without necessity of conscious reasoning processes, and function to influence higher mental processes in complex interaction with the environment (context) [12], [49], [50]. Theories of automaticity in social psychology provide a sophisticated theoretical background to understand a habit. Responses given automatically are activated quickly in memory by associated cues, often without intention or deliberation. Hence, some forms of automaticity do not depend on goals and emotions [21], [25], [51]-[53]. In this vein, people repeat habitual behaviors even if they reported intentions to do otherwise and behavior is led by intentions only in the absence of habits - people repeated habitual behavior even when they reported different intentions [41]. A similar standpoint comes from the affective intelligence theory that states that once habits are developed, the behavior may be sustained independently on the original motivations that encouraged habit formation [23, p. 540]. The findings in cognitive neuroscience suggest the strict influence of brain controlling behavioral choices and conflicts – the brain contains multiple systems for behavioral choice including one associated with prefrontal cortex and another with dorsal striatum, as well conflict monitoring provides a precedent for self-regulation without goals [54, p. 1704], [55]. However, some forms of automatic responding require that people hold supporting goals [23]. Reference [21] regards implicit goals to be an implausible mediator of habits, but the authors also consider them as stimuli to repetition. Similarly, [22, p. 843] regards that goals can (a) direct habits by motivating repetition and promoting exposure to cues that trigger habits, (b) be inferred from habits, and (c) interact with habits to preserve the learned habit associations. The authors have stated that habits possess conservative features that inhibit their relation with goals; however, goals and habits can direct each other [22, p. 844]. The habit-goal interface delineates dual-processes models that combine associative processing with rule-based one [56]. It is also evidenced that habits are broken when a behavioral script no longer achieves desired goals, resulting in negative emotions [24].

The role of motivation and intentions in forming and to higher extent developing habits is also associated with the habits strength. The frequency with which a person performs a goal-directed behavior in similar situations determines the strength of the association between the goal and the action. Hence, the higher frequency invokes the stronger association and it is easier to evoke the behavior automatically by activating the goal [57], [58]-their experiments have examined that habits are not behaviors linked directly to the environment, yet are instead behaviors automatically linked to their higher order goal. Hence, when the goal is activated, the habitual plan for executing that goal is automatically activated as well.

People with developed strong habits do not link their habitual decisions to the intentions and motivation they possess. People tend to repeat strongly habitual actions even given conflicting input from intentional systems [23], [27], [41], [59], [61]. However, individuals revealing occasional

repetitive decisions are guided by their intentions and motivation [23], [41], [60], [61]. Habit formation allows people to readily retrieve and select a specific means from a set of different means in memory to pursue a specific goal [26]. On the other hand, habits have been identified as an important driver of behavior as well as a source of resistance to change and to implement intentions [32], [42]. Hence, habits may directly generate behavior.

Apart from focusing by some scholars on the retrieval and selection of a certain means for goal attainment [49], [57] there are also attempts to examine the role of inhibitory processes in goal pursuit [26], [62] that are understood as a functional mechanism that reduces or prevents interference of accessible competing information and to shield current goal pursuit from distraction [26]. The reason why such an approach is important is to understand how individuals are able to choose between multiple means to pursue their goals in a habitual context without much intentional effort. Moreover, [26] evidenced that the inhibition of competing means eases the retrieval of target means and therefore promotes the formation of goal-directed habits. Inhibitory control emerges implicitly - without conscious and intent or explicit instructions to suppress the competing information [26], [63]. Thus, to form a habit it is necessary to avoid interference from distracting means that are also suitable for goal attainment. Moreover, according to [26], [64], [65], the findings both facilitative and inhibitory processes underlie the initiation of habit formation.

V. HABITS AND ROUTINES – CALL FOR FURTHER INVESTIGATION

The concept of habits is strongly associated with the organizational routines field.

Both habits and routines are described as automatic and mechanical behaviors. The benefits of routine behavior can be found in the affective domain – in feelings of safety, confidence, and well-being that are enhanced by routine performance. A routine might be considered as the formation of repetitive and habitual behavior which continues to promote positive feelings of confidence and well-being [66, p. 224, 226]. Routines are automatic sets of consecutive actions. It takes more than one repetitive action to form a routine, as distinguished from habits, that are sometimes more specific and defined [66, p. 224]. To the contrary, a habit constitutes one motive of action [8], [32], [68]-[70]. According to [71], a routine constitutes a repetitive action that resembles the cyclical performance, as well as its control purpose is either taken for granted or lost sight of. Once an action becomes part of a routine set, people may not stop to check whether the act is meaningful or necessary [66]. In a similar vein, it is posited that a habit can comprise cognitive expressions of a routine (habits of thought or 'habit[s] of mind' [72, p, 358], as well as motor expressions of a routine.

Some scholars, regard that routines are grounded in individual habits [21], [73], as well as, both habits and routines can be changed (e.g. [74]); however, it is still disputable to which extent ingrained habits and other similar

dispositions can change over time [36]. On the other hand, [75, pp. 29–30] considered habitual behavior essential to understanding organizational routines in the following way: "routines are not reducible to habits alone; they are organizational meta-habits, existing on a substrate of habituated individuals in a social structure. Routines are one ontological layer above habits themselves."

Routines, like habits, are also associated with time. They have impact on time perception in terms of routine and non-routine actions [66], [67], [76].

Whereas the term habit refers to the individual level, the term 'organizational routines' refers to the collective phenomena and consequently to the group and organizational level of analysis [70], [77], [78]. The collective nature of organizational routines has been emphasized for instance in the [31, p. 140], [79, p. 95] where routines are comprehended as 'organizational dispositions to energize conditional patterns of behavior within organizations, involving sequential responses to cues that are partly dependent on social positions in the organization', as well as 'repetitive, recognizable patterns of interdependent actions, carried out by multiple actors'.

Admittedly, some scholars are convinced that organizational routines are built from individual-level habits [30], [31], [47], [70], yet the following question arises: 'is a routine a simple (linear) aggregation of particular habits revealed by particular agents? Taking into account the fact that even habits be transferred amongst heterogeneous individuals and emerge via other agents habits dispersion – the answer is rather negative. Nonetheless, habits might constitute the micro-foundations of the construct 'organizational routines' [36]. Hence, organizational routines become, to a much greater extent than in the case of habits, a dynamic system and a generative model of the dynamics of organizational routines, as provided by [80].

Concluding, the call for setting micro-foundations of routines [81], [82] seems to be still valid and the assumption that individual or even habit-based processes may create routines, institutionalized practices, or organizational customs [68] needs to be empirically verified.

VI. Habits and Routines Linkages with Adaptation

Reference [83] evidenced that individuals with strong habits were less adaptive to changes in decision making, although new information indicated that a deviation from a habit would be advantageous to them, as well as they also preferred to neglect information that conflicted with their habits. The less adaptation is a result of behavioral inertia caused by habits, since people with stronger habits prefer the habitual choice and need less information on alternative options compared to people with weaker habits [84]. On the other hand, a habit is associated with the sense and feeling of well-being, safety, and positive affect [66], [85]-[87] that might reflect a situation of high level particular adaptation in a given context.

Referring to the organizational level (routines), the properties of recurring organizational action (therefore, rather of routines than habits), as a potential source of organizational

adaptation are the subject both of capabilities theories in the field of strategy [1], [77], [88], [89] and theories of organizational change (e.g. [90]). For instance, [91] investigates how inertia in routines influences the process of organizational adaptation. In turn, [92] states that embeddedness and agency may be key factors that shape the flexible use of routines and their change or persistence over time in other settings and proposes the following types of routines that might help adapt to particular environment (more or less unpredictable and uncertain): (a) Sticky Routine: very persistent; little impetus or change from within. Arbitrary Routine: Changes only as a result of intentional redesign, or unintended slippage; (b) Accommodative Routine: permits flexible use to pragmatically apply to the situation at hand, but variations rarely perpetuated; (c) Pragmatic Routine: changes readily as a result of emergent variation; responsive to shifts in the situation at hand; (d) Pervasive Routine: rather than changing over time, routine may "take over' more problem situations and become more widely applied; and (e) Adaptive Routine: relatively easily adapted to new uses; many variants may coexist simultaneously.

Habits and routines may be viewed as foundational building blocks in a theory of simple rules that guide heterogeneous, adaptive expectations [8]. It involves the notion of herding behavior - the emergence of habit driven behavior is understood as the basic principle underlying the formation, adjustment, and persistence of simple heuristics and rules that guide agents as they form and adapt expectations in a complex and changing world [8], [93].

VII. Conclusion

Recent advances in habit research and studies linking the level of individual heterogeneous agents with the level of macro (organizational) outcomes provide new possibilities for systematically examining the micro-foundations of organizational behavior and strategic management phenomena (compare [94]). Fig. 1 presents the proposal of the conceptual heuristic framework for examining habits.

Taking into account the research questions and all considerations aforementioned in this paper, the following findings and proposals have been made:

Proposal 1. Mental representation and procedural memory activation might mediate the association between the context cues and habit activation.

Proposal 2. Managerial intentions, motivation, and self-regulation might moderate the association between mental representation and procedural memory activation and habit activation, as well as the association between habit activation and habit performance.

Proposal 3. The more frequent and regular a particular managerial decision was made in the past, the stronger the habit in the managerial decision-making processes would be formed.

Proposal 4. Strong motivation for attaining a particular managerial goal might moderate the association between the repetitive decisions and habit strength.

Proposal 5. The context (a set of cues, events, etc.) stability

vs. changes might mediate the association between the repetitive decisions and habit strength – the stronger stability in the decision-making context, the most frequent habits, yet not necessarily the stronger ones (there might be situations where the context change enhances the habit strength).

Proposal 5a. The more dynamic context (environment), the higher impact of intentions, motivation, and emotions on habit performance is.

Proposal 6. The more frequent and stronger the habits in the decision-making processes that managers have, the lower salience/impact of their intentions as well.

Proposal 7. The more limited the self-controlled managerial resources, the stronger the habits and the higher the occurrence of habit performance.

Proposal 8. The less routine the tasks, as well as the less difficult the decisions to be made, the lower habit strength and *vice versa.*

Proposal 9. The more habitual managerial behavior, the less adaptive decision making in new, especially dynamic, contexts and the more adaptive decision-making in the current stable context.
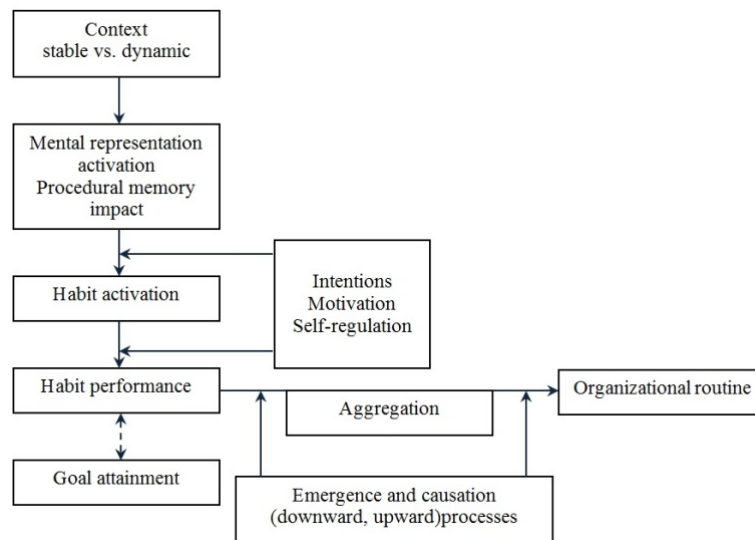

Fig. 1 Habits investigation: a conceptual heuristic framework

Ascertainment 1. Both conscious processes and determinism influence the processes of forming and developing habits. Habits are environmentally determined, however, in interaction with the mediating or moderating internal processes. Hence, both aspects ought to be the subject of scholars' investigations.

Ascertainment 2. Individual habits-driven behaviors constitute the micro-foundations of organizational routines and may lead to the emergence of organizational routines-driven behavior in the form of recurring action patterns (routines emerge from habits) being either enhanced or distorted with emergence and causation phenomena.

Ascertainment 3. Managers should be conscious about chances and traps involved in habits; however, it requires high managerial attention and mindfulness.

Ascertainment 4. Habits and routines may lead not only to inertia, but also to change, adaptability, and flexibility – it depends on the context conditions, managerial intentions, motivation, and routines types developed in the organization.

The considerations presented in the paper include some limitations. For instance, a type of decision, social cues (e.g. the behavior of others) [41], [43], [59], the role of stress, and willpower [27] have not been taken into account. Moreover,

methodology and particular measurement tools for examining constructs presented have not been alluded to.

According to the research directions, it is recommended to examine the linkages between habits and organizational routines through incorporating a multi-level methodology. Specifically, experiments are proposed to facilitate the linkage of contextual cues with desired behavioral responses. It is also suggested, taking into consideration in the studies, the time needed for developing a habit and routine and the determinants of time length. In conclusion, the research on habits and organizational routines seems to still have a preliminary status and definitely requires further investigation, so as to achieve a *reductio ad absurdum* of managerial decision-making processes.

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